THE EFFECT OF COMPANY LIQUIDITY AND EFFICIENCY ON PROFITABILITY IN THE FOOD AND BEVERAGE SUB-SECTOR ON THE INDONESIA STOCK EXCHANGE

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Abstract

This study aims to identify variables that affect profitability in food and beverage companies listed on the Indonesia Stock Exchange. The addition of the quick ratio variable as an independent variable is a novelty in this study. Liquidity is measured by the current ratio, net working capital, and quick ratio while company efficiency is measured using total asset turnover. Profitability is measured by ROA and ROE. This study also includes control variables such as size, age, leverage ratio, and company growth rate to analyze the effect on profitability. This research method includes collecting data from 20 food and beverage companies over five years (2019-2023) with a total of 100 data that meet the criteria with the application of data processing analysis using panel data regression analysis techniques. The results of the study found that the current ratio has a significant positive effect on ROA and has no effect on ROE. Net working capital, company size, and growth rate do not affect ROA and ROE. Total asset turnover has a significant positive effect on ROA and ROE. The quick ratio and age have a significant negative effect on ROA and do not affect ROE. In addition, the debt ratio has a significant positive effect on ROE and does not affect ROA. This study confirms that the efficiency of asset use and liquidity management plays an important role in increasing the profitability of companies in the food and beverage sector, especially through the effect on ROA and ROE.

Keywords: Company Efficiency, Debt, Liquidity, Profitability, Quick Ratio, Current Ratio, Total Asset Turnover

INTRODUCTION

The economic growth of companies plays an important role in shaping the business model and competitiveness of a country. Large companies' performance results contribute to economic growth and influence strategic policies, including technological innovation and participation in global value chains. Therefore, the analysis of company performance, especially concerning profitability, becomes very relevant (Nguyen, Phan & Hang., 2024).

Manufacturing companies operate in a competitive environment and often face challenges related to production costs, fluctuations in raw material prices, and changes in market demand. The food and beverage sub-sector is one of the growing industries in Indonesia. This industry has many variations in the size of the products produced. Various food and beverage companies offer their products in various forms. This is because food and beverages are one of the basic needs that must be met by everyone (Novita, Gaoal, Matanari & Siahaan., 2022). Food and beverage sector companies have rapid development, due to the increasing number of people, which of course has an impact on demand in this sector. This development has caused increasingly tight competition, which requires companies to prepare themselves to adapt to various situations, including increasingly growing business competition (Hidayah, Hermuningsih & Maulida., 2023). Therefore, companies need to manage operational efficiency and liquidity to increase profitability. This study shows that companies that can optimize the use of assets and maintain good liquidity tend to have higher levels of profitability (Nguyen, Phan & Hang., 2024).

According to Tiffany & Sufiyati, (2023), profitability as measured by Return on Assets (ROA) and Return on Equity (ROE) reflects a company's ability to generate profits from existing resources. Increasing profitability not only improves the company's image in the eyes of investors and stakeholders but also becomes an indicator of success in resource management. In a recent study, it was found that good management of working capital and control of production costs greatly contribute to increasing profitability in the manufacturing sector. For example, companies that can maintain a healthy liquidity ratio and maximize asset turnover tend to show better results in terms of profitability. Liquidity as measured by the liquidity ratio reflects the company's ability to meet short-term obligations. Companies with high liquidity can easily access funds for investment or pay debts, which in turn can increase

profitability. Through liquidity, companies will build trust from suppliers and customers, leading to better business relationships and new business opportunities. This trust and confidence can contribute to increasing the company's profits. Therefore, maintaining a high liquidity ratio will allow the company to remain profitable. However, according to Quoc, Phan & Hang., (2024), liquidity maintained at a high level will cause a large amount of capital to be embedded in current assets and cannot be used to generate income. As a result, the company's income decreases due to the loss of opportunities to use expensive capital.

Previous studies have shown a positive relationship between liquidity and profitability. Chandra, Junaedi, Wijaya & Ng., (2022) found that companies with high liquidity tend to have better profitability. In addition, operational efficiency also contributes significantly to profitability. This is also supported by Putra Pradana (2021) who stated that there is a positive and significant influence between liquidity and company profitability.

Recent research has found that corporate efficiency management reflects one of the key factors in determining a company's profitability. In an increasingly competitive economic context, companies are required to maximize the use of existing resources to improve financial performance. According to research by Nguyen et al., (2024), company efficiency is measured through the Total Asset Turnover (TAT) ratio, which shows how effectively a company uses its assets to generate good income against working capital and controlling production costs greatly contributes to increasing profitability in the manufacturing sector. For example, companies that can maintain a healthy liquidity ratio and maximize asset turnover tend to show better results in terms of profitability.

Research by Nguyen et al., (2024), revealed that corporate efficiency has a significant positive impact on profitability, both as measured by Return on Assets (ROA) and Return on Equity (ROE). By improving operational efficiency, companies can not only reduce costs but also increase their ability to generate revenue from existing resources. This is in line with previous findings stating that operational efficiency is positively related to financial performance (Mokhova Natalia, 2020). An efficient company can not only reduce operating costs but also increase investor and customer confidence, which in turn can contribute to sustainable growth.

This study adds a new variable, namely the acid ratio variable, with the results of research byAttafuah, (2024), found that the impact of the acid ratio has a positive effect on profitability. Furthermore, research conducted by Sari & Riharjo, (2021), found that there is a positive and significant relationship between quick ratio or acid ratio and profitability. This shows that if the quick ratio or acid ratio increases, it means that many idle or unused funds can be used to increase production, if production increases then sales increase, if sales increase then net income increases so that if net income has increased it means Return On Assets (ROA) also increases. This study aims to analyze the effect of liquidity and company efficiency on profitability and to determine significant differences in the effect of liquidity and company efficiency on profitability measures measured through ROA and ROE.

REVIEW OF LITERATURE

Profitability

Profitability is an important aspect for companies to maintain the sustainability of their business in the long term because profitability shows whether a business entity has good prospects in the future.

Current Ratio

The current Ratio is a measuring tool for liquidity capacity (short-term solvency), namely the ability to pay debts that must be immediately met with current assets (Hamzah, 2021). According toNadhifa & Budiyanto, (2017), one of the most commonly used financial ratios is the current ratio, which is usually used to describe a company's ability to meet its debt needs when they fall due.

Net Working Capital

Net Working Capital (NWC) is a current asset that can be used to finance the company's operational activities without affecting the company's liquidity (Purnama, 2024). According to Maru & Trihastuti, (2023), Net working capital (NWC) is defined as capital used to finance the company's daily operations, especially those with a short term.

Total Asset Turnover

Total Asset Turnover (TATO) is a ratio that shows the company's ability to utilize total assets owned to generate sales (Utami & Manda, 2021). According to Sefiani &

Sitohang, (2021), TATO describes the total turnover of assets in a certain period. The greater this ratio indicates that assets can be used effectively and rotate faster in making a profit.

Acid Ratio

Acid Test Ratio or quick ratio is a comparison between current assets minus inventory with current liabilities. This ratio is used to measure the company's ability to meet its financial obligations when they fall due (Attafuah, 2024).

Firm's Size

Company size is one of the variables that is widely used to explain the variation in disclosure in a company's annual report. Company size also explains how company size impacts the quality of disclosure. Total assets, sales volume, and average sales level indicate how big or small a company is (Madyoningrum, 2019).

Leverage Ratio

Leverage is the level of a company's ability to use assets and/or funds that have fixed burdens (debt and/or preferred stock) to realize the company's goal of maximizing the wealth of the company's owners. Companies that have a larger debt ratio should distribute smaller dividends because the profits obtained are used to pay off obligations. The higher the debt/equity ratio, the tighter the company is to debt agreements (Madyoningrum, 2019).

Firm's Age

According to Rahman & Sunarti, (2017), a firm's age or company age is the life cycle of the company from its inception until now. Novyanny & Turangan, (2019), states that the age of a company is the length of time the company has been established and survived amidst existing competition.

The Firm's Growth Rate

Novyanny & Turangan, (2019) state that company growth is the company's ability to maintain its economic position amidst economic growth and its business sector. ResearchJulietha & Natsir, (2021), states that growth describes the extent to which a company can grow and develop. Company growth can be described by its sales performance.

Conceptual Framework

Research results from Karim, Widyarti & Santoso., (2023), stated that the Current Ratio has a positive effect on profitability. The results of research conducted by Grace,

(2021), show that Net Working Capital (NWC) has a positive effect on profitability. Based on research conducted byBudiang, Pangemanan & Gerungai., (2017), Total Assets Turnover (TAT) has a positive effect on profitability in Indonesian manufacturing companies. According to research results byAttafuah, (2024), found that the impact of the acid ratio has a positive effect on bank profitability in Ghana. The results of the same study conducted by Karim et al., (2023), state that firm size has a positive effect on company profitability. Maulana & Rahayu, (2022), conducted a study stating that leverage (DER) has a significant positive effect on profitability, which means that the greater the Debt Equity Ratio (DER), the greater the profitability value of companies listed on the LQ45 index on the Indonesia Stock Exchange from 2017 to 2020. Research by Ali, (2019), stated that firm age has a positive influence on profitability in food and beverage industry companies listed on the IDX for the 2012-2017 period. According to the research Novyanny & Turangan, (2019), firm growth rate has a positive influence on profitability in service companies in the trade, service, and investment sectors listed on the IDX for the 2013-2017 period. Based on the explanation above, it has been described in the form of a chart as follows:

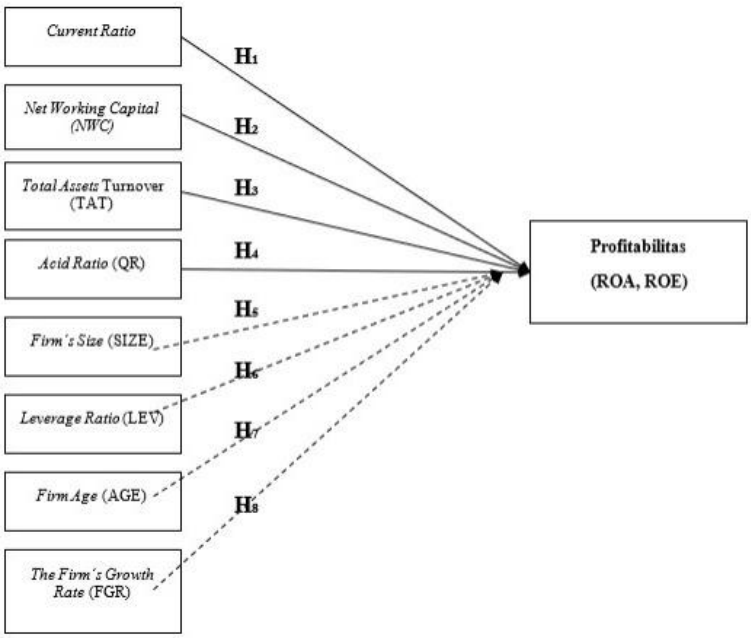

Figure 1.
Conceptual Framework

RESEARCH METHOD

Variables and Measurement of Variables

In this study, each variable is measured to determine the relationship between the independent variable and the control variable to the dependent variable. The independent variables in this study are the current ratio, net working capital, total assets turnover, and acid ratio. In this study, the firm's size, leverage ratio, firm age, and the firm's growth rate are control variables. The dependent variable in this study is profitability which is measured by Return On Assets (ROA) and Return On Equity (ROE).

Table 1.
Operational Definition of Variables

Variable Types	Variable Name	Proxy	Symbol	Formula	Reference
Dependent Variable	Profitability	Return On Assets	ROA	$\frac{\text{net income}}{\text{total asset}}$	Nguyen et al., (2024)
		Return On Equity	ROE	$\frac{\text{net income}}{\text{total equity}}$	Nguyen et al., (2024)
Independent Variables	Liquidity	Current Ratio	LIQ	$\frac{\text{current assets}}{\text{current liabilities}}$	Nguyen et al., (2024)
		Net Working Capital	NWC	current assets - current liabilities	Nguyen et al., (2024)
	Company Efficiency	Total Asset Turnover	TAT	$\frac{\text{total sales}}{\text{total assets}}$	Nguyen et al., (2024)
	Liquidity	Acid Ratio	QR	$\frac{\text{current assets} - \text{inventory}}{\text{current liabilities}}$	Attafuah, (2024)
Control Variables		Firm's Size	*SIZE*	natural logarithm of total assets	Nguyen et al., (2024)
		Leverage Ratio	LEV	$\frac{\text{total debt}}{\text{total equity}}$	Nguyen et al., (2024)
		Firm Age	*AGE*	number of years From listing to time	Nguyen et al., (2024)
		The Firm's Growth Rate	FGR	Total assets in year(n) – total assets in year(n-1) / total assets in year(n-1)	Nguyen et al., (2024)

Sampling Method

The data collection method in this study uses secondary data. Where secondary data is data obtained by researchers indirectly or data obtained from other people's research or published sources. The type of data used in the study is quantitative in the form of calculated values contained in the company's financial statements and annual reports. The data source for this study was obtained from the Indonesia Stock Exchange website (https://www.idx.co.id/) and each company's website used as a sample. The sample of this study covers 100 financial statement periods, consisting of 20 manufacturing companies for 5 years (period 2019-2023).

RESULTS AND DISCUSSION

Descriptive Statistical Analysis

ROA has a mean value of 0.086 with a standard deviation value of 0.089. The minimum value of -0.150 is owned by PCAR in 2020. Meanwhile, the maximum value of 0.730 was owned by CAMP in 2019. ROE has a mean value of 0.129 with a standard deviation value of 0.154. The minimum value of -0.330 is owned by COCO in 2023, while the maximum value of 1.350 is owned by CEKA in 2021. The current Ratio (CR) has a mean value of 3.253 with a standard deviation value of 2.529. The minimum value of 1,000 was owned by IKAN in 2019, while the maximum value of 13,310 was owned by CAMP in 2021. Net Working Capital (NWC) has a mean value of 24,056 with a standard deviation value of 4,680. The minimum value of 14,300 was owned by DMND in 2019, while the maximum value of 30,000 was owned by MYOR in 2023. Total Asset Turnover (TAT) has a mean value of 1,122 with a standard deviation value of 0.614. The minimum value of 0.220 was owned by PSGO in 2019, while the maximum value of 3,580 was owned by CEKA in 2022. Acid Ratio or Quick Ratio (QR) has a mean value of 2,443 with a standard deviation value of 2,129. The minimum value of 0.610 is owned by IKAN in 2019, while the maximum value of 11.430 is owned by CAMP in 2021. The firm's Size (SIZE) has a mean value of 25.454 with a standard deviation value of 4.637. The minimum value of 15.530 is owned by DMND in 2019, while the maximum value of 30.800 is owned by MYOR in 2023. Leverage (LEV) has a mean value of 0.678 with a standard deviation value of 0.479. The minimum value of

0.110 is owned by CEKA in 2022, while the maximum value of 2.510 is owned by COCO in 2023. Company age (AGE) has a mean value of 31.550 with a standard deviation value of 16.698. The minimum value of 5 years is owned by PCAR in 2019, while the maximum value of 65 years is owned by ULTJ in 2023. The Firm's Growth Rate (FGR) has a mean value of 0.110 with a standard deviation value of 0.221. The minimum value of -0.180 is owned by HOKI in 2022, while the maximum value of 1.680 is owned by ICBP in 2020.

Table 2.
Descriptive Statistics

Variables	Mean	Median	Maximum	Minimum	Std. Dev.
ROA	0.086	0.070	0.730	-0.150	0.089
ROE	0.129	0.130	1,350	-0.330	0.154
CR	3.253	2.405	13,310	1,000	2,529
NWC	24,056	26,095	30,000	14,300	4,680
TAT	1.122	1,045	3,580	0.220	0.614
QR	2.443	1,780	11,430	0.610	2.129
SIZE	25,454	27,520	30,800	15,530	4.637
LEV	0.678	0.600	2,510	0.110	0.479
AGE	31,550	27,000	65,000	5,000	16,698
FGR	0.110	0.065	1,680	-0.180	0.221

Source: Data Processing Using E-views

Chow Test

From the results of the Chow test, there are two possible outcomes, namely common effect and fixed effect. The Chow test is used in this study to assess the effectiveness and suitability of the model. The Chow test is based on two hypotheses, namely the null hypothesis which states that there is no individual heterogeneity, and the alternative hypothesis which states that there is heterogeneity in cross-sectional.

Table 3.
Chow Test

Dependent Variable	Chi-Square	Probability	Decision
ROA	47.564598	0.0003	H0 is rejected, and the Fixed Effect Model (FEM) is selected
ROE	63.666270	0.0000	H0 is rejected, and the Fixed Effect Model (FEM) is selected

Source: Data Processed Using E-views

Based on the Chow Test Table, for the three models the results show that the cross-section probability value of the chi-square is 0.0003 < 0.05 for the ROA model and 0.0000 < 0.05 for the ROE model. This means that the decision obtained is that H0 is rejected so that the model used has a fixed effect. Because the results of the Chow test conclude choosing a fixed effect model, it is necessary to carry out the next test, namely the Hausman test to choose between the fixed effect model and the random effect model.

Hausman Test

The Hausman test produces two possible outcomes, namely random effects and fixed effects. This study uses the Hausman test to assess the accuracy and quality of the model. In addition, the purpose of the Hausman test is to determine whether the characteristics of each model have heterogeneity.

Table 4.
Hausman Test

Dependent Variable	Chi-Sq. Statistic	Probability	Decision
ROA	24.459370	0.0019	H0 is rejected, and the Fixed Effect Model (FEM) is selected
ROE	15.979955	0.0427	H0 is rejected, and the Fixed Effect Model (FEM) is selected

Source: Data Processed Using E-views

Based on the table of the results of the Hausman test, the results show that the cross-section probability value of the statistic is 0.0019 < 0.05 for the ROA model and 0.0427 < 0.05 for the ROE model, therefore the decision obtained is to reject H0 for the ROA model and the ROE model so that for both models the fixed effect is better than the random effect. Therefore, for ROA and ROE the model chosen is the fixed effect.

Goodness-of-Fit Test (R^2)

This test aims to determine how much the contribution of the influence of the independent variable on the dependent variable is, provided that the results of the F test in the regression analysis are significant. The value is between 0 and 1 (0 <> 1), where if the value approaches 1, the independent and dependent variables have a closer relationship. If there are more than two variables, then the adjusted value is used. The coefficient of determination (Adjusted R2) essentially measures how far the model's ability to explain the

variation of the dependent variable. The Adjusted R2 value ranges from 0-1% and if the value approaches 1, the better $R^2R^2R^2$

Table 5.
Test Results of Goodness of Fit

Coefficient of Determination			
Dependent Variable	**Model**	**R-Squared**	**Adjusted R-Squared**
ROA	Prob(F Statistic)	0.576975	0.418341
ROE	Prob(F- Statistic)	0.572996	0.412870

Source: Data Processed Using E-views

Based on the table above, for ROA, the adjusted R2 value of 0.418341 indicates that around 41.83% of the variation in Return on Assets (ROA) can be explained by the independent variables included in the model. The remaining variation of 58.17% can be explained by other factors that are not modeled. This indicates that the model has a good ability to explain the relationship between the independent variables and ROA, and there is a strong relationship between the independent variables and ROA. Meanwhile, for ROE, the adjusted R2 value of 0.41870 indicates that around 41.87% of the variation in Return on Equity (ROE) can be explained by the independent variables in the model. The remaining 58.13% is explained by other factors that are not modeled. Although this value is slightly lower than ROA, it still shows that the model has a good ability to explain the relationship between the independent variables and ROE, and there is a strong relationship between the independent variables and ROE.

Simultaneous Test (F test)

If the sig significance value of the F test <0.05, it indicates that simultaneously the independent variables have a significant effect on the dependent variable, and therefore, the regression model is considered feasible to use. However, if the sig value of the F test >0.05, it indicates that simultaneously the independent variables do not have a significant effect on the dependent variable, so the regression model is not feasible to use.

Table 7.
F Test Results

Simultaneous Test (F-Test)				
Effects Test	**F-Statistic**	**Prob.**	**Hypothesis**	**Conclusion**
ROA	3.637137	0.0000	Ho was rejected	Have a significant impact
ROE	3.578402	0.0000	Ho was rejected	Have a significant impact

Source: Data Processed Using E-Views

From the test results on both models, it was found that the F-statistic value for profitability was 0.000000, which is lower than the commonly used alpha value of 5% (0.05). Therefore, based on this analysis, it can be concluded that simultaneously the independent variables have a significant effect on ROA and ROE as dependent variables. As a result, the regression model used is considered feasible for this study.

Individual Test (T-Test)

H_1: There is an influence of the current ratio on profitability

The Current Ratio (CR) has a significant effect on Return on Assets (ROA) with a probability value of 0.0064, which is smaller than the alpha value of 5% (0.05). Thus, there is sufficient statistical evidence to reject the null hypothesis stating that CR has no significant effect on ROA. The constant value of 0.081856 indicates a positive effect, meaning that the higher the current ratio, the greater the company's ROA. Better liquidity helps companies manage assets efficiently so that they can generate greater profits from their assets. This is especially relevant in the context of food and beverage sub-sector companies that require efficient cash flow and inventory management to keep operations running smoothly.

Meanwhile, the test results of the influence of CR on Return on Equity (ROE) show a probability value of 0.9655, which is much greater than the alpha value of 0.05. This means that there is not enough statistical evidence to reject the null hypothesis, which states that CR does not have a significant effect on ROE. In other words, the company's liquidity as reflected in the current ratio does not affect how much profit shareholders get. This may be because ROE is more dependent on how the company uses equity to create profits, which involves other factors such as financing decisions, investment, and leverage, which are not directly related to short-term liquidity.

This is not in line with research from Karim et al., (2023), AndJoseph & Hariani, (2023), which shows that the current ratio has a positive effect on profitability. CR affects ROA but does not affect ROE can be explained through the role of liquidity and the company's capital structure. High liquidity allows the company to meet short-term obligations and run operations without interruption, which in turn increases the efficiency of asset use to generate profit (ROA). However, concerning ROE, the effect of liquidity is not significant because ROE is more influenced by the company's strategy in using equity capital

for growth and profit. In the food and beverage subsector, companies may prioritize working capital and long-term investment rather than simply maintaining liquidity, so high liquidity is not directly reflected in an increase in equity returns.

H_2: There is an influence of net working capital on profitability

Based on the results of this study, the effect of net working capital (NWC) on Return on Assets (ROA) shows a probability value of 0.7452, which is greater than the alpha value used, which is 0.05. Thus, there is not enough statistical evidence to reject the null hypothesis, which states that NWC does not have a significant effect on ROA. This means that in this study, the amount of net working capital owned by the company does not affect the company's ability to manage its assets to generate profits.

Meanwhile, the effect of NWC on Return on Equity (ROE) shows a probability value of 0.1079, which is greater than the alpha value of 0.05, so it can be concluded that NWC is not statistically significant to ROE. This shows that NWC does not have a strong effect on shareholder return (ROE) in the context of food and beverage sub-sector companies. Although large net working capital can reflect the company's capacity to meet short-term obligations, it does not directly affect how much return on equity.

This is not in line with research by Nguyen et al., (2024) and Grace, AS (2023) which found that net working capital (NWC) has a positive effect on Return on Assets (ROA). NWC does not have a significant effect on either ROA or ROE, which may be because NWC focuses on working capital management, which tends to be related to daily operational needs. In food and beverage sub-sector companies, which often deal with high inventory and cash flow, effective working capital management does not directly impact asset profitability (ROA) or equity (ROE), but rather is more related to operational stability and short-term sustainability. A more substantial long-term influence on financial performance may arise from other aspects such as investment management, growth strategy, or financing decisions.

H_3: There is an influence of total asset turnover on profitability

Based on the results of this study, the effect of total asset turnover (TAT) on Return on Assets (ROA) shows a probability value of 0.0041, which is smaller than the alpha value of 5% (0.05). This indicates that there is sufficient statistical evidence to reject the null hypothesis, which states that TAT has no effect on ROA. With a positive constant value of

0.088611, this indicates that TAT has a positive and significant effect on ROA. This means that the higher the company's ability to maximize the use of assets to generate sales, the higher the company's profitability based on its assets. In the food and beverage subsector, companies that are able to use assets efficiently to increase sales will have better financial performance, reflected in the increase in ROA.

In addition, total asset turnover also has a significant effect on Return on Equity (ROE), with a probability value of 0.0043, which is smaller than the alpha value of 0.05. A positive constant value of 0.152516 indicates that TAT has a positive effect on ROE. This means that the higher the company's asset turnover, the greater the return generated for shareholders. This shows that the company's ability to manage assets to increase sales not only affects asset profitability but also directly affects the return on shareholder equity. Companies that are effective in managing their assets are more likely to increase net income, which ultimately increases returns to shareholders.

This is in line with research by Nikholas (2020) and Nguyen et al., (2024) which found that TAT has a positive and significant effect on profitability in Indonesian manufacturing companies. TAT has a significant effect on both ROA and ROE in the food and beverage subsector because the efficiency of asset use is very crucial in this industry, which depends on sales volume and product turnover. Companies that can increase sales through optimal asset use tend to have larger profit margins. This operational efficiency has a direct impact on asset profitability (ROA) and increases the profits available to be distributed to shareholders, which is reflected in the increase in ROE.

H_4: There is an influence of acid ratio on profitability

Based on the results of this study, the effect of acid ratio on Return on Assets (ROA) shows a probability value of 0.0039, which is smaller than the alpha value of 0.05. This indicates that there is sufficient statistical evidence to reject the null hypothesis, which states that acid ratio does not affect ROA. With a constant value of -0.105448 which is negative, this indicates that acid ratio has a negative and significant effect on ROA. This means that the higher the acid ratio, which reflects better liquidity, the lower the company's profitability as measured by the assets owned. In the context of the food and beverage subsector, this

could indicate that companies with too much liquidity tend not to utilize their assets effectively to generate profits.

On the other hand, the effect of acid ratio on Return on Equity (ROE) shows a probability value of 0.7277, which is much greater than the alpha value of 0.05. This indicates that there is not enough statistical evidence to reject the null hypothesis, which means that the acid ratio does not have a significant effect on ROE. In this case, although the acid ratio reflects the liquidity of the company, it does not affect the returns generated for shareholders. In other words, the acid ratio does not contribute significantly to the return on equity capital.

This is not in line with researchGarg & Gulia, (2022), as well asAttafuah, (2024), which found that the acid ratio has a positive effect on the profitability of the company. In this study, it was found that the negative effect of the acid ratio on ROA and no effect on ROE can be related to the way companies in the food and beverage subsector manage short-term assets and liabilities. Companies with high acid ratios have excess liquidity, which indicates that they are not fully utilizing assets for investment and growth. This excess liquidity can reduce the efficiency of asset use, which is reflected in lower ROA. However, this does not affect ROE because returns to shareholders are more influenced by net income and the company's financing decisions, which are not directly related to liquidity.

H_5: There is an influence of firm size on profitability

Based on the results of this study, the effect of a firm's size on Return on Assets (ROA) shows a probability value of 0.0532, which is less than the alpha significance level of 0.1. This means that there is sufficient statistical evidence to reject the null hypothesis stating that a firm's size has a significant positive effect on ROA. In other words, firm size significantly affects profitability as measured by the assets owned by the company in the food and beverage subsector.

Meanwhile, the influence of a firm's size on Return on Equity (ROE) shows a probability value of 0.6505, which is much greater than the alpha value of 0.1. This indicates that there is not enough statistical evidence to reject the null hypothesis, indicating that a firm's size does not have a significant effect on ROE. Thus, company size does not have a significant impact on the return on equity capital generated for shareholders.

This is not in line with research by Nguyen et al., (2024) and Karim et al., (2023), which found that firm size has a positive effect on firm profitability. The effect of firm size on both ROA and ROE may be related to the characteristics of the highly competitive food and beverage industry. In this industry, both large and small companies have different strategies for managing their assets and operations. Firm size is not a significant determinant in influencing profitability or return on equity, because other factors such as operational efficiency, product innovation, and cost management can be more influential in achieving good financial performance. In the digital era, large and small companies can have the same opportunity to market their products through social media and the Internet. Therefore, in the context of this subsector, firm size does not always reflect better financial performance. The results of this study are supported by Prakoso & Chabachib (2015) and Margaretha & Oktaviani, (2016), size has a positive and significant influence on profitability, which states that a firm's size has a positive influence on company profitability.

H_6: There is an influence of leverage on profitability

Based on the results of this study, the effect of leverage on Return on Assets (ROA) shows a probability value of 0.0874, which is smaller than the alpha value used, which is 0.1. This indicates that there is sufficient statistical evidence to reject the null hypothesis stating that leverage has a significant negative effect on ROA. In other words, the results of this test indicate that statistically, leverage does not affect profitability as measured by company assets in the food and beverage subsector.

Meanwhile, the effect of leverage on Return on Equity (ROE) shows a constant value of 0.209163 with a probability of 0.0001, which is much smaller than alpha 0.05. This indicates that there is sufficient statistical evidence to reject the null hypothesis, so it can be concluded that there is a significant positive effect between leverage and ROE. Thus, the higher the leverage, the greater the return generated for shareholders.

This is in line with research(2019), which shows that leverage has a significant positive effect on ROE and a significant negative effect on ROA. This may be related to how companies use debt to increase their funding. In this context, leverage can increase the returns received by shareholders through the efficient use of debt. In the food and beverage industry,

companies may use leverage to maximize shareholder value, but not necessarily improve overall asset performance.

H_7: There is an influence of a firm's age on profitability

Based on the results of this study, the effect of a firm's age on Return on Assets (ROA) shows a constant value of -0.024338 with a probability of 0.0022. This probability value is smaller than the alpha value used, which is 0.05, which means there is sufficient statistical evidence to reject the null hypothesis. The null hypothesis in this context states that firm age does not have a significant effect on ROA. Thus, the results of this test indicate that statistically, the Firm's Age has a negative effect on profitability as measured by the company's assets, indicating that the older the company, the lower the level of ROA produced.

Meanwhile, the influence of a firm's age on Return on Equity (ROE) shows a probability of 0.5432, which is much greater than alpha 0.05. This indicates that there is not enough statistical evidence to reject the null hypothesis, so it can be concluded that the age of the company does not have a significant effect on ROE. This means that the age of the company does not affect the returns generated for shareholders.

This is not in line with researchRachmita & Ardini, (2019), which found a positive effect on company profitability, but in line with research by Nguyen et al., (2024) which found that company age has a negative effect on profitability. The negative effect of a firm's age on ROA, but not on ROE, may be related to different dynamics between the use of assets and equity as the company ages. Older companies experience a decline in the efficiency of asset use, for example, due to technological obsolescence or inefficient processes. However, this is not always reflected in ROE, because older companies still have a strong equity structure or have valuable assets that are not visible. Thus, although company age has a negative impact on the efficient use of assets, it does not always affect the returns obtained by shareholders.

H_8: There is an influence of a firm's growth rate on profitability

Based on the results of this study, the influence of the firm's growth rate as measured by asset growth on Return on Assets (ROA) shows a probability value of 0.5587. This value is greater than alpha 0.05, which indicates that there is not enough statistical evidence to

reject the null hypothesis. In this context, the null hypothesis states that the firm's growth rate does not have a significant effect on ROA. Thus, the results of this test indicate that statistically, the company's asset growth does not affect profitability as measured by the assets owned by the company.

Likewise, the influence of a firm's growth rate on Return on Equity (ROE) shows a probability value of 0.8146, which is greater than alpha 0.05. This confirms that there is not enough evidence to reject the null hypothesis, so it can be concluded that the growth of the company's assets does not have a significant effect on ROE. This means that the rate of asset growth has no impact on the returns generated for shareholders.

This is not in line with the research of Nguyen et al., (2024), stating that the firm's growth rate has a significant positive effect on profitability. The ineffectiveness of the firm's growth rate on both ROA and ROE may be related to the nature of growth itself which does not always result in increased efficiency or profitability. Asset growth without a commensurate increase in revenue or profit can cause additional burdens for the company, such as increased operating costs or more complicated asset management. Therefore, even though the company experiences growth, this does not always translate into a significant increase in financial performance, either from an asset or equity perspective.

Table 6.
Individual Test Results (T-Test)

	Model 1 ROA		**Results**	**Model 2 ROE**		**Results**	**Conclusion**
	COEFF	**PROB**		**COEFF**	**PROB**		
Constants	-	-	-	-	-	-	-
CR	0.081856	0.0064**	Significant positive	-0.002191	0.9655	Not significant	Significantly positive on ROA and does not affect ROE
NWC	-0.003919	0.7452	Not significant	0.033885	0.1079	Not significant	Not significant
TAT	0.088611	0.0041**	Significant positive	0.152516	0.0043**	Significant positive	Significant positive on ROA and ROE
QR	-0.105448	0.0039**	Significant negative	-0.021407	0.7277	Not significant	Significantly negative to ROA

							and insignificant to ROE
SIZE	0.137373	0.0532**	Significant positive	-0.055111	0.6505	Not significant	Significantly positive towards ROA and not significant towards ROE
LEV	-0.049723	0.0874**	Significant negative	0.209163	0.0001**	Significant positive	Significantly negative to ROA and significantly positive to ROE
AGE	-0.024338	0.0022**	Significant negative	-0.008095	0.5432	Not significant	Significantly negative to ROA and insignificant to ROE
FGR	-0.023622	0.5587	Not significant	0.016401	0.8146	Not significant	Not significant

**) Significant at 5%, 10%

Source: Data Processing Using E-views

Research Regression Model

The panel data regression model used by previous research by Nguyen et al (2024) can be written as follows:

$$ROA = -2.6203 + 0.0818\mathbf{CR^{**}it} - 0.0039\mathbf{NWCit} + 0.0886\mathbf{TAT^{**}it} - 0.1054\mathbf{QR^{**}it} + 0.1373\mathbf{SIZEit} - 0.0497\mathbf{LEV}^{**it} - 0.0243\mathbf{AGE^{**}it} - 0.0236\mathbf{FGRit}$$

$$ROE = 0.7165 - 0.0022\mathbf{CRit} + 0.0339\mathbf{NWCit} + 0.1525\mathbf{TAT^{**}it} - 0.0214\mathbf{QRit} - 0.0551\mathbf{SIZEit} + 0.2092\mathbf{LEV^{**}it} - 0.0081\mathbf{AGEit} + 0.0164\mathbf{FGRit}$$

Information:

ROA = Return on Assets

ROE = Return on Equity

CR = Current Ratio

NWC = NetWorking Capital

TAT = TotalAsset Turnover

QR = Acid Ratio

SIZE = Firm's Size

LEV = Leverage

AGE = Firm's Age

FGR = Firm's Growth Rate

Implications

Based on the results and conclusions obtained, implications can be given to both investment managers and investors in general.

a. Investment Manager

This research is expected to help investment managers determine healthy company choices for their portfolios, especially in the food and beverage sub-sector. Investment managers need to focus on several performance indicators that have a significant effect on the profitability of food and beverage sub-sector companies on the Indonesia Stock Exchange. Investment managers need to pay attention to the current ratio (CR) which shows the importance of liquidity in creating value. In addition, investment managers also need to pay attention to the total asset turnover (TAT) which contributes positively to profitability, so that investment in companies that are efficient in using assets can provide better returns. Meanwhile, leverage also has a positive effect on ROE, investment managers must consider the risks associated with highly leveraged companies. Finally, investment managers also need to pay attention to the firm's age which shows a negative effect on ROA, which suggests that younger companies may offer better growth potential.

b. Investor

This study is expected to provide an overview for investors to pay attention to factors that can affect the profitability of food and beverage sub-sector companies. Investors should focus on several key factors in choosing companies in the food and beverage sub-sector on the Indonesia Stock Exchange. A high current ratio (CR) indicates good liquidity, potentially supporting profitability. A high total asset turnover (TAT) indicates efficient use of assets, contributing positively to profitability. Proper leverage can increase profitability, although it also carries risks. In addition, younger companies may have better growth potential, although it does not always have a direct effect on profitability.

CONCLUSION

The conclusion of the research results based on the discussion results that have been described are as follows:

1. Current Ratio (CR) significantly positively affects Return on Assets (ROA). However, CR does not significantly affect Return on Equity (ROE) in food and beverage subsector companies listed on the Indonesia Stock Exchange.
2. Net Working Capital (NWC) does not significantly affect ROA or ROE in food and beverage subsector companies listed on the Indonesia Stock Exchange.
3. Total Asset Turnover (TAT) has a significant positive effect on both ROA and ROE in food and beverage sub-sector companies listed on the Indonesia Stock Exchange.
4. The acid ratio has a significant negative effect on ROA. However, Acid Ratio does not have a significant effect on ROE in food and beverage sub-sector companies listed on the Indonesia Stock Exchange.
5. Company size has a significant positive effect on ROA and does not have a significant effect on ROE in food and beverage sub-sector companies listed on the Indonesia Stock Exchange.
6. Leverage has a significant negative effect on ROA, and has a significant positive effect on ROE in food and beverage sub-sector companies listed on the Indonesia Stock Exchange.
7. A firm's age has a significant negative effect on ROA, but company age does not have a significant effect on ROE in food and beverage sub-sector companies listed on the Indonesia Stock Exchange.
8. The Firm's Growth Rate (FGR) has no significant influence on ROA or ROE in food and beverage sub-sector companies listed on the Indonesia Stock Exchange.

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