

Determinants of Stock Returns with Firm Size as a Moderating Variable in Food and Beverage Companies Listed on the Indonesia Stock Exchange

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ABSTRACT: Firm size is an indicator used to measure how large or small a company is. Large companies are often perceived as more attractive to investors because they typically possess greater assets and higher revenues compared to smaller firms. This study examines the effect of liquidity, profitability, and leverage on stock returns, with firm size as a moderating variable. The research adopts a quantitative approach. The sample consists of Food and Beverage companies listed on the Indonesia Stock Exchange for the period 2020–2024. A purposive sampling technique was used, resulting in 26 selected companies. Secondary data were obtained from the official website of the Indonesia Stock Exchange. The analytical method employed was Moderated Regression Analysis (MRA). The findings show that profitability and leverage significantly contribute to stock returns, while liquidity does not. Furthermore, firm size is able to moderate the relationship between liquidity and stock returns, but it is unable to moderate the effects of profitability and leverage on stock returns.

KEYWORDS: Liquidity, Profitability, Leverage, Stock Return, Firm Size

I. INTRODUCTION

The Food and Beverage industry continues to show significant growth, resulting in intense competition among companies within the sector. This condition encourages firms to strengthen their fundamental aspects in order to remain competitive (Melisa et al., 2022). The industry is selected for this study because it plays a major role in fulfilling public needs. As one of the primary sectors, it provides essential food and beverage products that are consistently in demand and expected to continue increasing over time (Hayati & Andhaniwati, 2024).

According to Investinasia.id (2024) Indonesia's food and beverage sector plays a crucial role in the national economy, contributing 7.15% to the GDP in the first half of 2024. The sector is projected to grow by 4.53% by the end of the year, driven by strong domestic demand and increased exports. Sales of packaged food and beverages reached an impressive USD 40.11 billion (IDR 601.65 trillion) in 2023, demonstrating the strength and growth potential of the sector. This industrial expansion is supported by Indonesia's population of more than 275 million people, which is expected to surpass 281 million by 2025.

A high level of profitability generally reflects strong stock performance in an industry or company. Typically, stock price fluctuations indicate the potential capital gains investors may obtain from their stock transactions (Esanoveliansyah & Ichwanudin, 2021). Based on data from the Indonesia Stock Exchange (IDX) as of November 30, 2020, the IDX Composite (IHSG) decreased by 10.91% to 5,612—an improvement compared to March 2020. The index previously reached its lowest level of 3,937.63, reflecting a 37.49% decline on March 24, 2020. Over time, trading activities gradually improved, marked by the IHSG's recovery to 5,612.42 as of November 30, 2020 (Matyani et al., 2024).

Figure 1 presents the average stock returns of Food and Beverage companies listed on the IDX between 2017 and 2024 (Source: www.idx.co.id, processed data). The graph shows notable fluctuations: returns increased in 2017–2018 (7.32% to 8.25%), dropped significantly in 2019–2020 (–2.84% to –8.39%) due to the global pandemic, surged sharply in 2021–2022 (17.17% to 37%), then declined again in 2023–2024 (1% to –7%). These patterns reflect the sector's sensitivity to economic cycles, consumer demand shifts, and external shocks, indicating that stock returns in this industry are far from stable across time.

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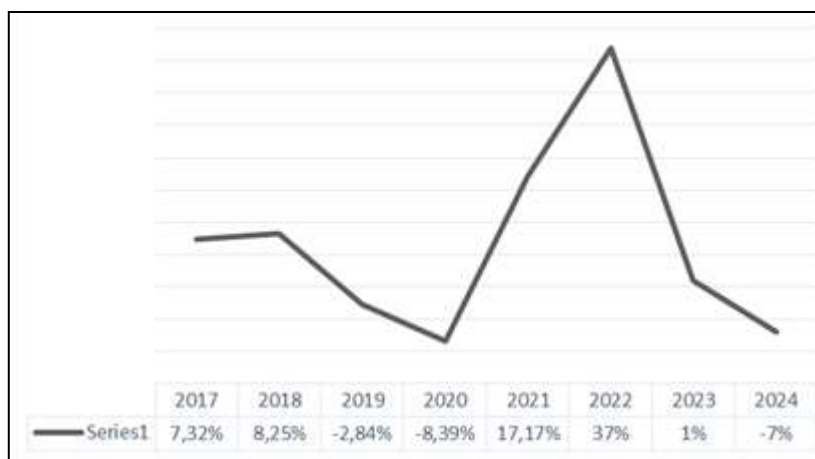


Figure 1. Average Stock Returns in the Food and Beverage Industry

Sumber : www.idx.co.id, processed data..

In line with these fluctuations, the IDX's Auto Rejection Bottom (ARB) threshold underwent several adjustments. During the pandemic, the ARB was limited to 7%, preventing stocks from falling more than that in a single day (Kontan, 2020). However, growing market volatility prompted the IDX to increase the ARB threshold to 15% starting April 2025, applicable to all securities including ETFs and REITs (IDX Channel, 2025). These changes underscore the need for investors to carefully evaluate risks, as inconsistent return trends suggest that the sector has not always delivered optimal investment outcomes (Rahmawati & Nur, 2024). Therefore, the core issue in this study is the fluctuating stock returns of Food and Beverage companies during the 2020–2024 period.

Financial statements reveal a company's financial condition and operational results, playing a crucial role in evaluating its financial performance. Financial ratios are among the most commonly used tools to measure such performance (Pratama & Idawati, 2019). company's performance is reflected in its financial metrics, which are recorded in financial statements, including the income statement. Net profit often serves as a benchmark for assessing performance and informs other indicators. To achieve financial gains, companies typically implement various strategies and systems (Ivania Larasati & Purwanto, 2022). Key fundamental factors commonly examined in predicting stock returns include: (1) liquidity, (2) profitability, and (3) leverage.

Firm size serves as an indicator to determine how large or small a company is. Larger firms are generally perceived as more attractive to investors because they typically possess greater assets and higher revenues than smaller firms. Increased investor interest in a company's stock can drive up stock prices and generate higher returns (Rahmawati & Nur, 2024).

Given the mixed findings of previous studies regarding the influence of financial ratios on stock returns, this research reexamines these relationships by incorporating firm size as a moderating variable. According to Sari & Khafid (2020), large firms tend to have greater access to information compared to smaller firms. This aligns with the signaling theory by Ross (1977) which states that management conveys information to attract investors (Pattynama, 2025). With such opportunities, companies strive to increase production and profits, which can ultimately be used to distribute higher dividends to shareholders (Apriani et al., 2020).

II. LITERATURE REVIEW

A. Signaling Theory

According to Brigham and Houston (2018), a signal refers to a policy or action taken by a company to communicate management's expectations regarding the firm's future prospects to investors. Firms with strong future prospects generally tend to avoid issuing new equity and instead seek alternative sources of financing, such as increasing the use of debt beyond the usual capital structure. Conversely, firms with weak expectations are more likely to issue new shares. Therefore, announcements related to equity issuance are often interpreted as a negative signal indicating that management views the company's prospects as unfavorable. Frequent issuance of new shares can lead to declining stock prices, as such actions are perceived negatively by the market.

B. Liquidity

Liquidity refers to a company's ability to meet its short-term obligations using its current assets without incurring significant losses. Liquidity ratios measure the company's capacity to fulfill short-term liabilities, especially those due within a specific

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period. A company with strong liquidity can pay its obligations on time, reflecting its financial strength and stability (Fitriana, 2024).

This study employs the Quick Ratio (QR) to evaluate how effectively a firm can meet its short-term obligations using its most liquid assets. The Quick Ratio excludes less liquid current assets such as inventory, focusing only on assets that can be converted quickly into cash (Ikatan akuntan indonesia, 2019). Formula:

$$QR = \frac{(\text{Current Assets} - \text{Inventories})}{\text{Current Liabilities}} \dots\dots\dots(2)$$

C. Profitability

Profitability ratios measure a company's ability to generate earnings from sales, assets, and equity. These ratios allow comparisons across firms and time periods, capturing increases, decreases, and the factors contributing to such changes (Fitriana, 2024). One of the primary indicators used in this study is the Return on Assets (ROA).

According to the Ikatan akuntan indonesia (2019) ROA measures a firm's ability to generate profit from its total assets. ROA reflects how efficiently a firm utilizes its assets to achieve its primary objectives.

$$ROA = \frac{\text{Net Income}}{\text{Average Total Assets}} \dots\dots\dots(3)$$

D. Leverage

Leverage refers to the use of debt to finance a company's assets. It indicates the extent to which a firm relies on external funding to support its operations. Leverage plays a role in enhancing financial performance, as borrowed funds can be utilized to support expansion and operational activities (Purwanti, 2021). One of the primary indicators used in this study is the Debt-to-Equity Ratio (DER).

DER measures the proportion of debt relative to equity. A lower DER indicates that more funding comes from the owners, offering more protection for creditors. While higher ratios may be favorable for some investors, they can also signal higher risk for creditors (Fitriana, 2024). Formula:

$$DER = \frac{\text{Total Liabilities}}{\text{Total Equity}} \dots\dots\dots(4)$$

E. Stock Returns

Stock return refers to the profit obtained from investing in a company's shares. It reflects changes in stock prices between periods, which may yield profits or losses. A decline in stock returns indicates capital loss for investors and may also negatively impact corporations, as investors use stock price movements to forecast future firm performance (Yulfiswandi & Dewi, 2022).

$$R_i = \frac{P_{it} - P_{i,t-1} + D}{P_{i,t-1}} \dots\dots\dots(6)$$

F. Firm Size

According to Aniela and Nurbaiti in Asmawi (2018), firm size refers to a measure used to determine how large or small a company is. Firm size can be assessed using total assets or total net sales. In this study, firm size is measured using the natural logarithm of total assets(Fajriah et al., 2022). Formula is:

$$\text{Firm Size} = \text{Ln Total Assets} \dots\dots\dots(7)$$

G. Hypothesis Development

1) The Effect of Liquidity on Stock Returns

Liquidity refers to a firm's ability to meet its obligations as they become due (Purwanti, 2021). Liquidity is expected to have a positive effect on stock returns because it reflects a company's capacity to fulfill short-term liabilities and manage cash flows efficiently. This condition reduces perceived risk for investors, enhances market confidence, and serves as a signal of the company's financial health and stability, which ultimately contributes to higher stock values (Kasmir, 2018).

Well-maintained liquidity also signals that management is effective in managing assets and liabilities. Investors interpret this as evidence of managerial competence, which can increase firm valuation and stock returns (Harahap, 2020). Within a comprehensive fundamental analysis framework, liquidity ratios play a crucial role as indicators of a firm's short-term financial soundness (Hery, 2017).

Among liquidity measures, the Quick Ratio provides a more conservative and stringent assessment of a firm's liquidity position by excluding inventories from current assets, as inventories are not always easily convertible into cash (Hery, 2017). This ratio therefore offers a clearer picture of a company's immediate ability to meet short-term obligations.

Empirical evidence supports this relationship. Meidiyustiani and Niazi (2021) found that the Quick Ratio has a positive and significant effect on stock prices, indicating that a company's ability to meet obligations without relying on inventory contributes

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to rising stock prices. These findings are consistent with Wijaya and Sedana (2020), who reported a significant effect of the Quick Ratio on stock returns. A higher Quick Ratio reflects stronger short-term financial capability, which enhances investor confidence and subsequently increases stock prices and returns. Other studies similarly confirm a significant positive relationship between the Quick Ratio and stock prices, suggesting that strong liquidity conditions stimulate investor interest.

H₁: Liquidity has a positive and significant effect on stock returns of food and beverage companies listed on the Indonesia Stock Exchange.

2) *The Effect of Profitability on Stock Returns*

Profitability refers to a company's ability to generate profits relative to its total assets and equity. Profitability is expected to have a positive effect on stock returns because it reflects strong financial performance, operational efficiency, and the firm's capability to consistently generate earnings. These conditions enhance investment attractiveness, strengthen investor confidence, and send positive signals regarding future growth prospects and the firm's ability to distribute profits (Putri & Suaryana, 2022).

According to Aprilia and Riharjo (2023), profitability is closely linked to signaling theory, in which high profitability conveys positive information about a company's performance and prospects. A high Return on Assets (ROA) attracts potential investors because it indicates that management is capable of utilizing assets efficiently to generate profits. Empirical evidence from Pattynama (2025) shows that ROA has a significant effect on stock returns, suggesting strong company performance and effective asset management.

These findings are consistent with Sari et al. (2022), who also reported a significant positive relationship between profitability ratios—particularly ROA—and stock returns in banking companies listed on the Indonesia Stock Exchange. Partially, ROA was found to have a positive and significant effect on stock returns in the banking sector during the 2018–2020 period, indicating that improvements in ROA as a measure of financial performance contribute to higher stock returns.

H₂: Profitability has a positive and significant effect on stock returns of food and beverage companies listed on the Indonesia Stock Exchange.

3) *The Effect of Leverage on Stock Returns*

Leverage is used to measure the extent to which a company's assets are financed through debt. A higher level of debt usage is directly associated with increased financial risk, primarily in the form of interest expenses arising from borrowed funds. In theory, leverage may contribute positively to stock returns because it allows firms to benefit from the tax shield on interest expenses, potentially increasing earnings per share (EPS), and signaling management's confidence in the firm's future prospects. Collectively, these factors may enhance firm value and attract investors (Marbun, 2018).

Several theoretical perspectives suggest that companies willing to assume a certain level of debt—particularly those with strong growth prospects—send a positive signal to the market, indicating management's confidence in generating sufficient future cash flows to meet debt obligations (Syahbani, Erliana, & Citradika, 2024). A healthy level of leverage can therefore convey positive information about corporate development. Investors generally prefer firms with a relatively low Debt-to-Equity Ratio (DER), as this condition is often associated with lower financial risk, higher stock prices, and increased stock returns. A low DER reflects a reduced dependence on borrowed funds, making the company appear safer and more attractive to investors, which may ultimately drive up firm value.

The use of external financing through debt is also considered a positive signal to external stakeholders regarding the firm's capacity to meet future obligations while maintaining targeted profitability, thereby indicating manageable business risk (Prena et al., 2019). However, empirical findings provide mixed evidence. Fadhilah and Warsitasari (2023) found that DER has a negative and significant effect on stock returns among companies listed in the Jakarta Islamic Index. Consistent with this, Winanti et al. (2025) argue that leverage does not always have a direct impact on stock returns, as its effect depends on how effectively firms manage their financial structure and how the market perceives associated risks and growth opportunities.

H₃: Leverage has a negative and significant effect on stock returns of food and beverage companies listed on the Indonesia Stock Exchange.

4) *The Effect of Liquidity on Stock Returns Moderated by Firm Size*

Firm size, with total assets as one of its primary indicators, plays a significant role in attracting investor interest. In principle, investors tend to prefer investing in companies with larger asset bases (Hidayat, 2021). Firms with greater assets are expected to have a stronger capacity to meet short-term obligations. As a company's assets increase, its ability to strengthen the effect of liquidity on stock prices also increases. Investors are generally more confident in investing in larger firms, which in turn reinforces the influence of liquidity on rising stock prices and stock returns (Ningrum & Pertiwi, 2025).

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This argument is supported by Ningrum and Pertiwi (2022), who found that firm size is able to moderate the effect of liquidity ratios on stock prices. Similarly, Dua and Prastyatini (2025) reported that liquidity, as an independent variable, when strengthened by firm size as a moderating variable, has a positive and significant effect on stock prices. These findings suggest that firm size enhances the role of liquidity in shaping investor perceptions and market valuation.

H₄: Firm size strengthens the effect of liquidity on stock returns of food and beverage companies listed on the Indonesia Stock Exchange.

5) *The Effect of Profitability on Stock Returns Moderated by Firm Size*

Profitability ratios evaluate management's ability to generate profits, whether derived from sales activities or investment performance. Strong profitability ratios reflect a firm's effectiveness in generating earnings. Firm size, as measured by total assets, provides an indication of the scale of a company. Firms with large asset bases generally have better future prospects, as they have often reached a mature stage characterized by stable cash flows. Unlike firms with limited assets, larger companies typically have greater capacity to generate profits.

Investors tend to perceive large firms as more secure and therefore prefer investing in their shares compared to smaller firms with limited assets. This perception arises because smaller firms often have lower market value due to weaker past performance and a more limited business scope (Apriani et al., 2020). Empirical evidence from Andari et al. (2024) supports the view that firm size can influence the contribution of profitability to stock prices. In line with this, Rahmawati (2024) found that firm size moderates the relationship between profitability and stock returns in healthcare companies listed on the Indonesia Stock Exchange during the 2020–2023 period.

H₅: Firm size strengthens the effect of profitability on stock returns of food and beverage companies listed on the Indonesia Stock Exchange.

6) *The Effect of Leverage on Stock Returns Moderated by Firm Size*

Leverage reflects the extent to which a company utilizes debt, which can signal both risk and potential returns to investors. According to signaling theory, corporate management employs leverage as an informational signal that influences investor perceptions regarding the firm's prospects. Firm size moderates this relationship, as larger companies generally convey stronger signals and are better able to reduce information asymmetry in the market, thereby strengthening the effect of leverage on stock returns (Apriyani et al., 2022).

Firm size plays a crucial role in moderating the impact of leverage on stock prices. Higher leverage enables companies to expand operations in order to manage debt obligations more effectively. Growth in firm size reflects increased production capacity, marketing reach, and distribution capabilities, which collectively enhance financial performance and attract investor interest. Consequently, stock prices tend to rise as firm size increases, acting as a channel through which leverage influences stock returns. Larger firms typically manage leverage more efficiently, which contributes to higher stock prices.

These arguments are supported by Apriani et al. (2020), who found that firm size significantly influences the relationship between the Debt-to-Equity Ratio (DER) and stock returns.

H₆: Firm size strengthens the effect of leverage on stock returns of food and beverage companies listed on the Indonesia Stock Exchange.

III. RESEARCH METHOD

This study employs secondary data sourced from the annual financial reports of food and beverage companies listed on the Indonesia Stock Exchange (IDX) for the period 2020–2024. Secondary data refers to information obtained indirectly through documents or third parties that provide the required data. The primary data source for this research is the official website of the Indonesia Stock Exchange (www.idx.co.id). Data collection was carried out through documentation, namely by gathering and analyzing financial statements officially published by the IDX (Sugiyono, 2017):

In determining the sample, this study uses a non-probability sampling method with a purposive sampling technique, in which samples are selected based on specific criteria relevant to the research objectives. The sampling criteria are as follows:

- a) Companies classified under the food and beverage sector listed on the Indonesia Stock Exchange as of 2024;
- b) Food and beverage companies that were not delisted from the IDX during the period 2020–2024.

Based on these criteria, 26 food and beverage companies met the requirements for this study. Given that each company published financial statements for five consecutive years (2020–2024), a total of 130 observations were obtained and used as research data.

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The variables used in this study include the Quick Ratio, Return on Assets, and Debt to Equity Ratio. The analytical technique applied is Moderated Regression Analysis (MRA). This method is used to identify whether the moderating variable can strengthen or weaken the relationship between the independent variables and the dependent variable.

IV. RESEARCH RESULTS

A. Moderated Regression Analysis

The effect of financial ratios on stock returns was examined using the following regression model::

$$\text{Return Saham}_{it} = \alpha + \beta_1 \text{Qr}_{it} + \beta_2 \text{ROA}_{it} + \beta_3 \text{DER}_{it} + \beta_4 \text{Size}_{it} + \epsilon_{it} \dots\dots\dots (8)$$

Table 1. Hypothesis Testing of Financial Ratio Variables

Model	B	Sig	t	Beta	Conclusion
Constant	-0.052	0.536	-0.621		
Liquidity	0.009	0.248	1.161	0.110	Rejected
Profitability	0.496	0.002	3.142	0.299	Accepted
Leverage	-0.014	0.004	-2.989	-0.284	Accepted
Firm Size	0.000	0.915	0.107	0.010	–
R-Squared	0.167				
Adjusted R-Squared	0.131				

Source: SPSS Output (2025)

Based on the partial test results (MRA), the interpretations are as follows:

- The significance value of the liquidity variable is 0.248 (>0.05), indicating that liquidity does not have a significant effect on stock returns.
- The significance value of the profitability variable is 0.002 (<0.05), indicating that profitability has a significant effect on stock returns.
- The significance value of the leverage variable is 0.004 (<0.05), indicating that leverage has a significant effect on stock returns.

The R-Squared value of 0.167 indicates that liquidity, profitability, leverage, and firm size collectively explain 16.7% of the variation in stock returns among food and beverage companies for the period 2020–2024. The remaining 83.3% is influenced by other variables not included in this study.

To examine the moderating effect of firm size on the relationship between financial ratios and stock returns, the following regression model was used:

$$\text{Stock Returns}_{it} = \alpha + \beta_1 \text{Qr}_{it} + \beta_2 \text{ROA}_{it} + \beta_3 \text{DER}_{it} + \beta_4 \text{Size}_{it} + ((\beta_5 \text{Qr}_{it} * \text{Size}_{it}) + (\beta_6 \text{ROA}_{it} * \text{Size}_{it}) + (\beta_7 \text{DER}_{it} * \text{Size}_{it})) + \text{Size}_{it} \dots\dots (9)$$

Table 2. Hypothesis Testing: Firm Size as a Moderator Between Financial Ratios and Stock Returns

Model	B	Sig	t	Beta	Conclusion
Constant	0,019	0,904	0,121		
Liquidity * Firm Size	0,002	0,039	2,093	0,708	Accepted
Profitability * Firm Size	-0,061	0,100	-1,663	-0,892	Rejected
Leverage * Firm Size	0,001	0,722	0,357	0,566	Rejected
R-Squared	0,226				
Adjusted R-Squared	0,167				

Source: SPSS Output (2025)

Interpretations of the partial test results are as follows:

- The significance value for the interaction between liquidity and firm size is 0.039 (<0.05), indicating that firm size strengthens the effect of liquidity on stock returns.
- The significance value for the interaction between profitability and firm size is 0.100 (>0.05), indicating that firm size does not strengthen the effect of profitability on stock returns.

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- c) The significance value for the interaction between leverage and firm size is 0.722 (>0.05), indicating that firm size does not strengthen the effect of leverage on stock returns.

The R-Squared value of 0.226 shows that liquidity (X1), profitability (X2), and leverage (X3) together explain 22.6% of the variance in stock returns (Y) after incorporating firm size as a moderating variable. The remaining 77.4% is influenced by other variables outside the scope of this study. A low R^2 value indicates that the independent variables have limited power to explain the dependent variable, while a value closer to 1 suggests that the independent variables provide nearly all the necessary information to predict variations in the dependent variable.

V. DISCUSSION

A. The Influence of Liquidity Ratio on Stock Returns in Food and Beverage Companies Listed on the Indonesia Stock Exchange

The Quick Ratio does not always show a significant correlation with stock returns because it may not fully reflect the liquidity risk perceived by investors in the capital market. This condition may occur because investors tend to focus more on other factors considered more relevant in influencing investment decisions and stock prices, such as profitability, leverage, market conditions, and overall market sentiment. This phenomenon is particularly evident in the food and beverage industry, which is characterized by relatively stable operations and consistent product demand, resulting in generally stable liquidity levels.

Nevertheless, stock returns of companies in this sector experience substantial fluctuations, driven by external factors such as capital market conditions, investor sentiment, and macroeconomic dynamics. Information related to a firm's liquidity position may already be fully incorporated into stock prices, causing liquidity to exhibit no significant effect in the regression model. This indicates that the capital market has anticipated liquidity conditions in advance, thereby diminishing the impact of liquidity on stock returns.

These findings are supported by Windasari and Purwanto (2020), who reported that liquidity risk has a negative effect on stock returns. This implies that higher liquidity risk can reduce the returns received by investors. From the investor's perspective, liquidity risk—even under conditions of high liquidity—can influence firm valuation and investment decision-making processes, which ultimately affect stock prices. Similarly, Sidarta and Syarifudin (2022) found that the Quick Ratio does not have a significant individual effect on stock returns during the COVID-19 pandemic, particularly in healthcare sector companies listed on the Indonesia Stock Exchange during the 2019–2020 period.

B. The Influence of Profitability Ratio on Stock Returns in Food and Beverage Companies Listed on the Indonesia Stock Exchange

The results of this study indicate that profitability has a significant effect on stock returns. In the food and beverage sector, profitability plays a central role due to the industry's strong sensitivity to changes in consumer preferences and fluctuations in raw material costs. Companies that are able to manage costs efficiently while increasing revenue tend to create higher value for shareholders.

According to signaling theory, Return on Assets (ROA) as a profitability indicator provides a positive signal to investors regarding the quality and financial performance of a company. When a firm reports a high ROA, it indicates that management is capable of utilizing assets efficiently to generate profits. Moreover, in the food and beverage industry—where product quality and brand reputation are critical—profitability also reflects a company's ability to sustain competitive advantage and maintain operational efficiency.

Therefore, profitability serves not only as an internal measure of financial performance but also plays an important role in shaping market perceptions and enhancing investment performance in the food and beverage sector. These findings are supported by the studies of Pattynama (2025) and Sari et al. (2022), which demonstrate that ROA significantly influences stock returns, indicating strong corporate performance, effective revenue generation, and increasingly efficient asset utilization.

C. The Influence of Leverage Ratio on Stock Returns in Food and Beverage Companies Listed on the Indonesia Stock Exchange

The findings of this study indicate a negative and significant effect of leverage on stock returns. High leverage raises concerns regarding a firm's ability to maintain business sustainability, particularly when facing volatile market conditions or increasing production cost pressures. In the food and beverage industry—which relies heavily on operational stability and consumer trust—heightened financial risk resulting from high leverage tends to worsen market perceptions of company performance. As a consequence, stock prices decline, leading to lower returns for investors.

Therefore, companies must carefully consider the use of debt as a financing source to avoid eroding shareholder value. These results are consistent with the findings of Winanti et al. (2025) and Fadhillah & Warsitasari (2023), who reported that the Debt-to-Equity Ratio (DER) has a negative and significant effect on stock returns, as it reflects both the firm's capital structure and its

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level of debt risk. A high DER indicates a substantial debt burden, causing investors to prefer firms with lower DER due to the associated lower financial risk.

D. The Influence of Liquidity Ratio on Stock Returns with Firm Size as a Moderating Variable in Food and Beverage Companies Listed on the Indonesia Stock Exchange

The effect of liquidity on stock returns interacts with firm size and may be strengthened depending on the magnitude of the company. Larger firms tend to possess stronger capital structures, easier access to funding sources, and better-managed financial risks. Consequently, liquidity in large firms becomes a clearer indicator for investors of the company's ability to meet short-term obligations without disrupting operational activities, thereby exerting a more significant influence on investment decisions and stock returns. This makes liquidity an important factor in assessing investment return potential in large firms.

In contrast, for relatively smaller firms, even when liquidity levels are high, investors may perceive higher inherent risks. As a result, the impact of liquidity on stock returns tends to be weaker or insignificant. This conclusion is consistent with signaling theory, which suggests that larger firms are able to convey stronger positive signals to the capital market regarding their financial stability and credibility, thereby influencing investor perceptions and stock prices.

These findings are supported by Ningrum & Pertiwi (2022) as well as Wahyuningtyas & Hariyanto (2022) who found that firm size moderates the effect of liquidity ratios on stock prices. However, firms with large total assets may also experience a weakening relationship between liquidity ratios and stock prices. This implies that larger firms tend to have lower liquidity ratios, which can ultimately lead to a decline in stock prices.

E. The Influence of Profitability Ratio on Stock Returns with Firm Size as a Moderating Variable in Food and Beverage Companies Listed on the Indonesia Stock Exchange

The effect of profitability on stock returns does not depend on firm size. In this context, profitability remains the primary factor determining stock returns, while firm size does not contribute to altering this relationship. Relatively homogeneous industry characteristics or market conditions may also explain why firm size does not function as a significant moderating variable in this relationship.

Profitability directly reflects a firm's ability to generate earnings, which is a central consideration for investors when making investment decisions. Although firm size is often regarded as an indicator of stability and managerial capacity, it does not influence how investors evaluate the impact of profitability on stock returns in this case. Investors tend to focus on the magnitude of profits generated by a firm rather than its scale.

Consistent with the findings of Apriani et al. (2020) and Ningrum (2024), firm size does not moderate the relationship between Return on Assets (ROA) and stock returns. Thus, whether a firm is large or small does not increase or reduce the effect of ROA on stock returns.

F. The Influence of Leverage Ratio on Stock Returns with Firm Size as a Moderating Variable in Food and Beverage Companies Listed on the Indonesia Stock Exchange

Based on the analysis conducted, firm size is unable to moderate the effect of leverage on stock returns. According to signaling theory, leverage can function as a signal that conveys information to investors regarding a company's future prospects. However, in the context of food and beverage companies in Indonesia, market responses to leverage do not differ significantly between large and small firms. This indicates that investors tend to view leverage as a primary indicator without considering firm size as an additional factor.

An increase in debt generally elevates financial risk, which typically affects fluctuations in stock returns. Nevertheless, the results confirm that this risk is not dependent on firm scale; both large and small firms exhibit similar market reactions to debt utilization. In other words, within the food and beverage sector, firm size does not strengthen or weaken the relationship between leverage and stock returns. The market evaluates leverage independently, without regard to the size of the firm.

These findings are supported by Rofalina et al. (2023) and Rahmawati (2024), who reported that firm size does not reduce stock returns when the Debt-to-Equity Ratio (DER) declines, nor does it increase stock returns when DER rises. Consistent with these results, Wahyudi (2023) also found that firm size is unable to moderate the effect of leverage on stock returns.

VI. CONCLUSIONS

Based on the statistical analysis performed using SPSS to examine the effects of several variables, the study yields the following conclusions. Liquidity does not contribute to stock returns. In other words, even when firms exhibit strong liquidity, this condition does not directly influence stock return movements in the capital market. Profitability, however, has a significant

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positive effect on stock returns. Higher profitability indicates stronger financial performance, which serves as a crucial indicator for investors when evaluating the potential returns on a company's shares. Leverage shows a significant negative effect on stock returns, suggesting that increased debt ratios may reduce the returns gained by investors. The higher the proportion of debt used to finance operations or expansion, the greater the burden of interest costs and financial risk borne by the company.

Firm size strengthens the effect of liquidity on stock returns, meaning that the impact of liquidity varies depending on how large a company is. Good liquidity is generally more valued in larger firms due to their financial stability, easier access to capital, and stronger market reputation. However, firm size does not strengthen the effect of profitability on stock returns, indicating that the influence of profitability remains consistent regardless of company size. This suggests that investors prioritize earnings performance while disregarding firm size when assessing potential stock returns.

Similarly, firm size does not strengthen the effect of leverage on stock returns, implying that the relationship between leverage and stock returns is not contingent on firm size. Firm size, measured through total assets, does not significantly amplify or diminish the effect of leverage on stock performance.

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