THE EFFECT OF INTELLECTUAL CAPITAL AND FIRM SIZE ON STOCK RETURNS WITH PROFITABILITY AS A MODERATION VARIABLE IN MANUFACTURING COMPANIES IN THE FOOD & BEVERAGE SECTOR LISTED ON THE IDX IN 2020-2024

Dela Dwi Puspitasari
Universitas Jenderal Achmad Yani, Cimahi, Indonesia
deladwi_22p075@ak.unjani.ac.id

Anissa Yuniar Larasati[2]
Universitas Jenderal Achmad Yani, Cimahi, Indonesia
anissa.yuniar@lecture.unjani.ac.id

Abstract

Fluctuations in stock returns in companies in the Food and Beverage sector during the 2020–2024 period indicate uncertainty in value creation for investors. This condition encourages the need to analyze factors that affect stock returns, such as intellectual capital and firm size, with profitability. This study aims to analyze the influence of intellectual capital and firm size on the return of saharn with profitability as a moderation variable in manufacturing companies in the food and beverage sector listed on the Indonesia Stock Exchange for the 2020-2024 period. This study uses a quantitative approach with purposive sampling techniques and analyzes 51 company-year observation data through multiple linear regression and moderated regression analysis. The results of the study show that intellectual capital, firm size, and profitability do not have a significant effect on stock returns. Profitability is also not able to moderate the relationship between intellectual capital and stock returns, nor the relationship between firm size and stock returns. Simultaneously, intellectual capital, firm size, and profitability have no significant effect on stock returns. These findings show that stock returns in the sector are likely to be influenced by other factors, both internal and external, beyond the variables studied.

Keywords: Intellectual Capital, Firm Size, Profitability, Stock Return

INTRODUCTION

Global economic development is currently in a state of uncertainty. The geopolitical tensions that have occurred have disrupted international supply chains and triggered increased inflationary pressures. The trade war policy implemented by the United States has also strengthened this pressure, causing fluctuations in the global economy, triggering fragmentation in international trade, and increasing world economic instability (Haspramudilla, 2024). This global uncertainty can have a major impact on extreme capital market fluctuations. The value of stocks and other financial instruments can change in a short period of time, making them difficult to predict and have a high level of risk (Firm, 2023). In this situation, investors tend to be more selective in choosing investment instruments, especially stocks. Based on the Indonesia Stock Exchange report, global geopolitical dynamics also put pressure on the national capital market (Binekasri, 2024).

In the midst of these conditions, the capital market remains one of the important means for investment development and economic growth in Indonesia. The capital market functions as a meeting place for parties who have excess funds and those who need funds through securities trading, such as stocks, bonds, and mutual funds (Eduardus Tandelilin & CWM, 2017). Investment itself is an investment of funds at this time in the hope of making profits in the future (Eduardus Tandelilin & CWM, 2017). These profits are known as returns, which consist of capital gains (losses) and yields (Jogiyanto, 2010). In the context of stocks, return is one of the main indicators that investors pay attention to because it reflects the return on the funds invested (Balqis & Buana, 2021).

In the food and beverage industry, which is included in the consumer non-cyclicals sector, the company has relative stability because the products produced are basic needs of the community. Nevertheless, the sector still faces challenges, such as rising raw material prices and changes in consumer preferences post-pandemic that could affect product demand (Dzakwan et al., 2023). This condition requires companies to maintain efficiency and financial performance in order to remain able to provide good stock returns to investors. Fluctuations in stock returns in this sector show that stock price movements are not always stable and can be influenced by fundamental factors of the company.

Table 1.
Stock Return Calculation

Code	2020	2021	2022	2023	2024
ADES	3,72	7,79	7,35	3,55	0,06
BISI	1,34	-0,15	5,09	0,12	-1,84
BUDI	-0,13	6,40	2,39	1,83	-1,51
LSIP	0,51	-0,87	-0,93	-1,00	1,19
ROBERT	0,46	0,06	-0,23	-0,88	-1,33
SIMP	1,19	1,18	-0,69	-0,69	0,16
SIPD	6,55	3,52	-2,04	0,76	-3,29
BACK	0,9	-2,49	-4,44	6,35	-3,12
ANDI	0,5	-0,48	0,00	0,00	-8,91
COCO	-1,70	-5,41	0,00	-2,85	-5,75

Based on data on the return of shares of food and beverage companies for the 2020-2024 period, there is a fluctuating pattern with a tendency to weaken at the end of

the period. 2021 is the best phase, while from 2022 to 2024 several issuers experienced a decline and even negative returns. This phenomenon shows that stock returns are not only influenced by external conditions, but also by internal factors of the company, such as intellectual capital and firm size. Investors generally use information on profitability and resource management efficiency as the basis for decision-making. Good financial performance is a positive signal for the market, while poor performance tends to weaken investor interest and lower stock returns (Handayani & Destriana, 2021).

Intellectual capital is an intangible asset that reflects the company's ability to create added value through the use of knowledge, human resource competencies, organizational systems, and relationships with stakeholders (Kustinah, 2022). In theory, the higher the intellectual capital the company has, the better the company's ability to create a competitive advantage, improve operational performance, and generate added value so that it can increase investor confidence which ultimately has an impact on increasing stock returns (Wahyuni et al., 2021, Pulic, 2000). However, the phenomenon in food and beverage companies for the 2020–2024 period shows different conditions. Based on VAIC average data and stock returns, an increase or decrease in intellectual capital is not always followed by a change in stock returns in the same direction. In the 2022–2023 period, for example, changes in the value of VAIC were not able to encourage a consistent increase in stock returns, and even some companies continued to experience negative returns. This phenomenon indicates that intellectual capital management is not necessarily immediately appreciated by the market because investors' investment decisions are also influenced by the company's profitability conditions and other external factors.

In addition to Intellectual Capital, another factor that is suspected to affect stock returns is Firm Size. Firm size is a measure that describes the size of a company based on the total assets it owns (Fitriani & Desmiza, 2024). Companies with larger sizes generally have more adequate resources, wider access to funding, a better level of business diversification, and a higher ability to deal with business risks so that they are expected to be able to provide higher stock returns to investors (Romli et al., 2023). However, the phenomenon in food and beverage companies for the 2020–2024 period shows conditions that are not entirely in accordance with this theory. Data shows that the size of the company tends to be stable from year to year, while stock returns fluctuate quite large and even have negative values in some companies. In the 2022–2024 period, a relatively small change in firm size was not followed by an increase in stock returns, thus showing that the size of the company's assets is not necessarily the main consideration for investors in determining investment decisions. This condition indicates that there are other factors that also affect the relationship between firm size and stock returns, one of which is the company's ability to generate profits.

In addition to this empirical phenomenon, research on the influence of intellectual capital on stock returns still shows inconsistent results. Research Aprilia & Isbanah (2019), Septiana & Wahyuni (2021), and Wahyuni et al., (2021) found that intellectual capital had no significant effect on stock returns. Instead, research Jayanti & Romli (2023) Proving that intellectual capital has a positive and significant effect on stock returns. The difference in the results of the study shows that there is still a research gap so that the relationship between intellectual capital and stock returns needs to be retested, especially by considering profitability as a moderation variable.

Research on the influence of firm size on stock returns also still shows inconsistent results. Research A. K. Fitroh (2022) and Natalia et al. (2020) stating that firm size has

no significant effect on stock returns. Instead, research Setyowati & Prasetyo (2021) found that firm size has a positive and significant effect on stock returns. The difference in the results of the study shows that there is a research gap so that the influence of firm size on stock returns still needs to be reviewed by considering profitability as a moderation variable.

Based on the empirical phenomenon and research gap, the relationship between Intellectual Capital, Firm Size, and stock returns still cannot be explained consistently. The discrepancy between theories, empirical conditions, and previous research results suggests that there are other factors that have the potential to influence the relationship. In this study, the factor is profitability, which is proxied using Return on Assets (ROA) as a moderation variable. Profitability was chosen because the company's ability to generate profits is suspected to strengthen or weaken the influence of Intellectual Capital and Firm Size on stock returns. Companies with a high level of profitability are estimated to be better able to optimize the use of intangible assets and assets owned to produce better performance and obtain a positive response from investors.

This research is motivated by the importance of efforts to overcome global economic uncertainty that affects capital market fluctuations, so that stock returns in food and beverage companies become unstable. This study examines the influence of Intellectual capital measured using VACA, VAHU, and STVA, Firm Size proxied through Total Assets, on stock return measured using stock prices in the current period and previous periods, Profitability proxied by Return On Asset (ROA) as moderation.

The purpose of this research is to produce new theoretical and empirical insights on the influence of Intellectual Capital, which is an intangible asset that reflects the company's ability to create added value through the use of knowledge, human resource competence, organizational structure, and relationships with stakeholders, as well as Firm Size, which is a company size that describes the size of the company based on the total assets owned and reflects the capacity companies in managing resources, gaining access to funding, and increasing investor confidence, in Stock Return, which is the level of profit that investors earn as a result of investing in a company. In this study, the relationship was analyzed with profitability as a moderation variable, namely the company's ability to generate profits through the use of its assets, which was proxied using Return on Assets (ROA) to test whether the level of profitability was able to strengthen or weaken the influence of *intellectual capital* and *firm size* on *stock returns.*

The results of the study are expected to enrich the academic literature on the relationship between these variables while providing practical implications for companies and investors in understanding the factors that affect *stock returns, increasing the effectiveness of corporate resource management, and supporting more appropriate investment decision-making.*

REVIEW OF LITERATURE

Resources-Based Theory (RBT)

Resources-Based Theory (RBT) introduced by Penrose (1959) explains that companies can build a competitive advantage by analyzing and interpreting the resources they have. According to (Azzahra & Mulyandini, 2025), RBT (Resource-Based Theory) explains that a company's performance functions optimally when it has a strong competitive advantage that generates added value. In summary, RBT emphasizes the importance of leveraging unique and heterogeneous resources to create distinctive capabilities, improve long-term performance, and strengthen overall competitiveness.

Signalling Theory

The signalling theory introduced by Ross (1997) explains that management or a company seeks to convey positive information about the company's condition with the aim of encouraging an increase in stock value. The information conveyed serves as a signal for investors and other interested parties in making considerations to make economic decisions (Azzahra & Mulyandini, 2025).

Miller (1999) stated that voluntary disclosure of intellectual capital provides an opportunity for investors to assess the condition of the company more comprehensively. Such a more in-depth assessment can help lower the level of investment risk. This theory is used as a basis to explain the relationship between financial performance (profitability) and stock returns. When a company conveys positive information through its financial statements, the market tends to respond with an increase in the stock price. Conversely, the delivery of negative information is usually reflected in a decline in the company's stock price.

Intellectual capital is one of the approaches to measure knowledge assets represented through various abilities and potentials inherent in employees. To measure intellectual capital indirectly, Pulic (2000) develop the Value Added Intellectual Coefficient (VAIC™) method. The VAIC™ measurement model consists of three main components, namely Value Added Human Capital (VAHU), Value Added Capital Employed (VACA), and Structural Capital Value Added (STVA). According to Ulum (2017), the VAIC™ method has advantages because the data needed is relatively easy to obtain from the company's financial statements so it is widely used in research on company performance.

In addition to intellectual capital, another factor that also affects the company's performance is the firm size or company size. Firm size describes the size of a company as reflected in the total assets owned. Company size is often used as an indicator of a company's ability to manage resources, gain access to funding, and maintain its business sustainability (A. K. Fitroh, 2022). Companies with larger sizes generally have more adequate resources to support operational activities and increase competitiveness.

In optimizing the use of its resources, companies are also required to be able to generate profits effectively. This ability is reflected in the company's level of profitability. According to Yulianti & Rahmah (2022), profitability ratio is a financial ratio used to measure a company's ability to generate profits while evaluating the effectiveness of management in managing company operations. Profitability can be measured using various types of ratios, but in this study it is proxied by Return on Assets (ROA). The ROA ratio shows the level of efficiency of the company in utilizing the assets it owns to generate profits. The higher the ROA value, the more optimal the company is in managing its assets so that it reflects better performance.

Based on previous studies, this study formulated the following hypothesis:

H1: Intellectual Capital has a positive effect on stock returns
H2: Firm size has a positive influence on stock returns
H3: Profitability moderates the relationship between Intellectual Capital and Stock Return
H4: Profitability moderates the relationship between Firm Size and Stock Return
H5: Intellectual Capital and Firm Size Simultaneously Affect Stock Returns

RESEARCH METHOD

This study uses secondary data with a quantitative approach. This study draws the required data from the financial statements and annual reports that are publicly available on the IDX website. This study aims to explore how intellectual capital, and firm size

affect stock returns with profitability as a moderation variable. The population of this study consists of food & beverage companies listed on the Indonesia Stock Exchange (IDX) during 2021-2024. In this study, the non-probability sampling method used is the purposive sampling technique. The following criteria are used for sample selection: 1) Food & Beverage Sector Companies are listed on the IDX for the period 2020–2024. 2) Companies in the Food & Beverage sector that conducted an IPO on the Indonesia Stock Exchange in the 2020-2024 research period. 3) Food & Beverage Sector Companies that do not use Rupiah (IDR) in their financial statements during the 2020-2024 research period. 4) Companies in the Food & Beverage sector that are delisted or suspended during the 2020-2024 period

Of the 101 Food & Beverage Companies listed on IDX, 51 companies were selected as research samples through purposive sampling. With a five-year observation period from 2020 to 2024, the study covered a total of 255 data.

Table 2.
Indicator Variabel

Variabel	Indicator	Description
Intellectual Capital	COW = VA/CE VAHU = VA/HC STVA = SC/VA VAICTM = COW + VAHU + STVA (Guntoro & Arrozi, 2020)	VA=Value Added (Output-Input) CE=Capital Employed HC=Human Capital SC=Structural Capital (VA-HC)
Firm Size	Total Assets (Ramdiani & Iradianty, 2022)	Ln (Total Assets)
Profitability	LENGTH (Amirullah et al., 2021)	Net Profit/Total Assets
Return Saham	Capital Gain/Loss (Jogiyanto, 2010)	(*Pt – Pt-1)/Pt-1*

The data in this study was analyzed using IBM SPSS version 27. The analysis procedures carried out include descriptive statistics, classical assumption tests, multiple linear regression with the model Y = a + b1X1 + b2X2 + b3X3 + b4X4 + b5X5 + ε and moderated regression analysis (MRA) with the model R_i = a + b1X1 + b2X2 + b3X3 + b4X4 + b5X5 + ε, as well as hypothesis testing through t-test, F test, and determination coefficient analysis.

RESULTS AND DISCUSSION

Descriptive Statistical Analysis

Table 3.
Descriptive Statistical Analysis

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Intellectual Capital	255	-20.81	50.12	3.8356	5.73200
Firm Size	255	21.94	33.70	28.9161	1.97608
Return Saham	255	-8.91	76.83	1.6777	8.68055
Profitability	255	-.52	331.94	4.7849	35.76378
Valid N (listwise)	255				

Source: Data processed by researchers using SPSS 27, 2026

Based on the results of descriptive statistics, the Intellectual Capital variable has a minimum value of -20.81 and a maximum of 50.12 with an average of 3.8356 and a standard deviation of 5.73200, which shows a considerable variation in data. This indicates that there are companies that have been able to optimize the use of human capital, structural capital, and physical capital in creating added value, but there are still companies that have not managed Intellectual Capital effectively. According to the Resource-Based View (RBV) theory, Intellectual Capital is one of the strategic resources that can create a competitive advantage if managed optimally (Barney, 1991; Pulic, 2000).

The Firm Size variable has a minimum value of 21.94 and a maximum of 33.70 with an average of 28.9161 and a standard deviation of 1.97608, so the data tends to be more homogeneous. The Stock Return variable has a minimum value of -8.91 and a maximum of 76.83 with an average of 1.6777 and a standard deviation of 8.68055, which indicates a fairly high data spread. This shows that most Food and Beverage companies have total assets that are not much different, so the characteristics of company size in this study are relatively uniform. According to the Signaling Theory, companies that have a large size tend to give positive signals to investors because they are considered to have operational stability, wider access to funding, and the ability to survive in the face of economic uncertainty (Ross, 1977).

Meanwhile, the Profitability variable has a minimum value of -0.52 and a maximum value of 331.94 with an average of 4.7849 and a standard deviation of 35.76378, which indicates a very high level of data variation because the standard deviation value far exceeds the average value. This condition indicates that there are companies that are able to manage assets efficiently so that they generate high profits, but there are also companies that are still experiencing a decline in financial performance. The difference in profitability levels shows that the company's ability to generate profits is one of the factors that has the potential to affect investor responses to company shares.

Classic Assumption Test

Normality Test

The Kolmogorov–Smirnov test is used to test the normality of data in regression models. The data is said to be normally distributed if the value of Asymp. Sig is greater than 0.05.

Table 4.
Normality Test

One-Sample Kolmogorov-Smirnov Test

			Unstandardized Residual
N			255
Normal Parametersa,b	Mean		.0000000
	Std. Deviation		.99238852
Most Extreme Differences	Absolute		.030
	Positive		.030
	Negative		-.026
Test Statistic			.030
Asymp. Sig. (2-tailed)[c]			.200d
Monte Carlo Sig. (2-tailed)[e]	Say.		.832
		Lower Bound	.823

99% Confidence Interval	Upper Bound	.842

Source: Data processed by researchers using SPSS 27, 2026

Based on the results of the normality test using the One-Sample Kolmogorov-Smirnov Test method, an Asymp value was obtained. Sig. (2-tailed) is 0.200. This value is greater than the significance level of 0.05 (0.200 > 0.05), so it can be concluded that the data is normally distributed.

Multicollinearity Test

The multicollinearity test is used to assess the potential correlation between independent variables in the regression model. A tolerance value of > 0.10 or a Variance Inflation Factor (VIF) value of < 10 indicates the absence of multicollinearity.

Table 5.
Multicollinearity Test

Coefficientsa

Model		Collinearity Statistics	
		Tolerance	LIVE
1	(Constant)		
	Intellectual Capital	.912	1.096
	Firm Size	.800	1.250
	Profitability	.858	1.166

Source: Data processed by researchers using SPSS 27, 2026

Based on the results of the multicollinearity test shown in the Coefficients table, it is known that the Intellectual Capital variable has a Tolerance value of 0.912 and a VIF value of 1.096. The Firm Size variable has a Tolerance value of 0.800 and a VIF value of 1.250. Meanwhile, the Profitability variable has a Tolerance value of 0.858 and a VIF value of 1.166. All independent variables in this study had a Tolerance value greater than 0.10 and a Variance Inflation Factor (VIF) value of less than 10. Thus, it can be concluded that there are no symptoms of multicollinearity between independent variables in the regression model.

Hesterooxygenacity Test

The purpose of the heteroscedasticity test was to evaluate whether there was an inequality of variance in the regression model. In this study, *the scatterplot* method was used as a tool to identify the presence of heteroscedasticity. The data is said to be free of heteroscedasticity if there is no systematic or clear pattern, and the points are randomly spread above and below the value of 0 on the Y axis.

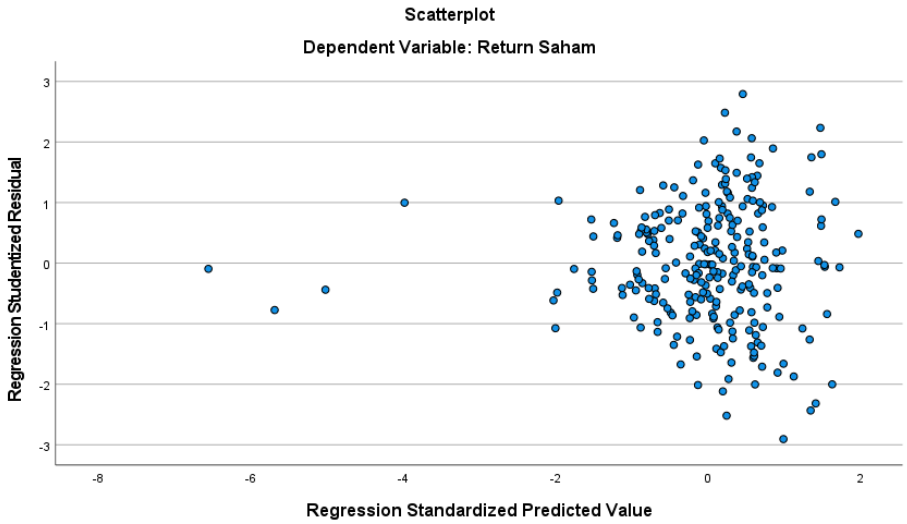


Figure 1.
Heteroscedasticity Test
Source: Data processed by researchers using SPSS 27, 2026

Based on the results of the heteroscedasticity test using scatterplot graphs, it can be seen that the data points are randomly spread and do not form a specific pattern and are scattered above or below the zero on the Y axis.

Autocorrelation Test

To test whether the residual in one time period is related to the residual in the previous period in the regression model, an autocorrelation test is required. The *Durbin-Watson statistical value* that is between dU and 4 − dU indicates that the data do not experience autocorrelation.

Table 6.
Autocorrelation Test

Model Summaryb

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.071a	0,005	-0,007	0,9983015	2,259

Source: Data processed by researchers using SPSS 27, 2026

As shown in the results of the autocorrelation test, the Durbin-Watson value at a significance level of 0.05, with n = 51 and k = 3 indicating that the values of dL = 1.4273, dU = 1.6754, and 4 – dU = 2.3246 This second test met the criteria because dU < dW < 4 – dU or 1.6754 < 2.259 < 2.3246 which when viewed in the table shows that there is no autocorrelation in this study.

Multiple Linear Regression Analysis

Table 7.
Multiple Linear Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Say.
	B	Std. Error	Beta		

1	(Constant)	.887	1.018		.871	.385
	Intellectual Capital	.003	.011	.015	.222	.825
	Firm Size	-.031	.035	-.061	-.866	.387
	Profitability	-.002	.002	-.067	-.989	.323

Source: Data processed by researchers using SPSS 27, 2026

$Y = 0.887 + 0.003X_1 - 0.031X_2 - 0.002Z$

The constant of 0.887 indicates the initial value of stock returns in food & beverage companies on the IDX during the 2020–2024 period, which is influenced by Intellectual Capital (X_1), Firm Size (X_2), and Profitability (Z) considered constant or zero.

The Intellectual Capital regression coefficient of 0.003 shows that every one unit increase in Intellectual Capital will increase the company's Share Return by 0.003. Meanwhile, the Firm Size with a coefficient of -0.031 shows that every increase in one unit of Firm Size actually decreases the Stock Return by 0.031. In addition, the profitability regression coefficient of -0.002 shows that each increase of one unit of profitability will decrease the stock return by 0.002, assuming the other variables are fixed, assuming the other variables in this study remain constant. These findings are in line with the research of Aprilia and Isbanah (2019), Septiana and Wahyuni (2021), Wahyuni (2022), Fitroh and Fauziah (2022) and Natalia et al. (2020) which stated that intellectual capital and firm size have no effect on stock returns.

Moderation Regression Analysis

Table 8.
Moderation Regression Analysis

Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients	t	Say.
		B	Std. Error	Beta		
1	(Constant)	.788	1.017		.775	.439
	Intellectual Capital	.002	.011	.012	.176	.860
	Firm Size	-.027	.035	-.054	-.769	.443
	Intellectual Capital moderated by Profitability	.000	.001	.051	.321	.748
	Firm Size moderated by Profitability	.000	.000	-.112	-.710	.479

Source: Data processed by researchers using SPSS 27, 2026

$Ri = 0.788 + 0.002CI - 0.027FS + 0.000\ (CI \times PROF) + 0.000\ (FS \times PROF) + e$

The constant of 0.788 indicates the initial value of stock return (Ri) when the variables of intellectual capital (IC), firm size (FS), and profitability (PROF), as well as their interactions, are considered constant or have a value of zero.

The intellectual capital regression coefficient (IC) of 0.002 indicates that every increase in one unit of intellectual capital will increase the return of the stock by 0.002, assuming that other variables are constant. However, a significance value of 0.860 (>0.05) suggests that this effect is not significant. Meanwhile, the firm size regression coefficient (FS) of -0.027 indicates that every increase of one unit of firm size will decrease the stock return by 0.027, assuming other variables remain the same. A significance value of 0.443 (>0.05) indicates that this effect is also insignificant.

The interaction coefficient of IC × PROF of 0.000 indicates that profitability does not strengthen or weaken the relationship between intellectual capital and stock returns. This is supported by a significance value of 0.748 (>0.05) which means it is insignificant.

The interaction coefficient of FS × PROF of 0.000 shows that profitability is also not able to moderate the relationship between firm size and stock returns. A significance value of 0.479 (>0.05) indicates that this moderation effect is not significant.

Coefficient Determination Analysis

Table 9.
Coefficient Determination Analysis

Model Summaryb

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.071a	.005	-.007	.9983015

Source: Data processed by researchers using SPSS 27, 2026

The results show that the R-Squared value is 0.005 or 0.5%. This value shows that the contribution of independent variables and their interactions is able to explain 0.05% of the variation in the dependent variable, while the rest is explained by other variables outside the scope of this study.

T test

The t-test to find out whether each independent variable has a significant influence on the dependent variable, the t-test is carried out, namely by comparing the calculated t-value with the t-value of the table (df = n – k – 1) at a significance level of 0.05.

Table 10.
T test

Coefficientsa

Model		t	Say.
1	(Constant)	.775	.439
	Intellectual Capital	.176	.860
	Firm Size	-.769	.443
	Intellectual Capital moderated by Profitability	.321	.748
	Firm Size moderated by Profitability	-.710	.479

Source: Data processed by researchers using SPSS 27, 2026

The test results showed that the *intellectual capital* variable had a calculated t-value of 0.176 with a significance value of 0.860, which is greater than 0.05. This shows that *intellectual capital* does not have a significant effect on stock returns. Furthermore, the *firm size* variable has a calculated t-value of -0.769 with a significance value of 0.443, which is also greater than 0.05. Thus, *firm size* does not have a significant effect on *stock returns.*

For the moderation variable, the interaction between *intellectual capital* and *profitability* had a calculated t-value of 0.321 with a significance value of 0.748. These results show that *profitability* is not able to moderate the relationship between *intellectual capital* and stock returns. Meanwhile, the interaction between *firm size* and *profitability*

has a t-value of -0.710 with a significance value of 0.479. This also shows that *profitability* is not able to moderate the relationship between *firm size* and *stock returns.*

Based on the overall results of the t-test, it can be concluded that all variables, both independent and interaction, do not have a significant influence on stock returns. In addition, *profitability* did not play a role as a moderation variable in this study.

Test F

To evaluate the simultaneous influence of independent variables on dependent variables, the F test was performed by comparing the calculated F value with the F value of the table (df = n – k) at a significance level of 0.05.

Table 11.
Test F

ANOVA

Model		Sum of Squares	df	Mean Square	F	Say.
1	Regression	1.263	3	.421	.422	.737b
	Residual	250.148	251	.997		
	Total	251.411	254			

Source: Data processed by researchers using SPSS 27, 2026

Based on the results of the F test in the ANOVA table, the F value was calculated as 0.422 with a significance level of 0.737. The significance value is greater than 0.05, thus indicating that the null hypothesis (H_0) is accepted and the alternative hypothesis (H_a) is rejected.

These results show that the *variables of intellectual capital, firm size, and profitability* simultaneously do not have a significant effect on stock returns. Thus, the regression model in this study has not been able to explain the common influence of all independent variables on dependent variables.

The Influence of Intellectual Capital on Stock Returns

The results of the study show that Intellectual Capital does not have a significant effect on Stock Return. The results of the linear regression analysis show that the change in Intellectual Capital is not related to the change in Stock Return. Therefore, H0 is accepted and H1 is rejected. These findings show that intellectual capital has not been able to influence stock returns. This can happen because investors have not fully made intellectual capital the basis for investment decision-making. On Food & Beverage Manufacturing Companies Investors tend to pay more attention to other factors such as net income, macroeconomic conditions, market risk, and industry sentiment. The food & beverage sector is also an industry that has dominant physical assets and production activities, so information about intellectual capital has not been the main concern of investors in assessing the company's prospects. As a result, the increase in intellectual capital owned by the company has not been able to be responded to by the market through changes in stock returns. Theoretically, these results are less in line with the Resource-Based Theory (RBT) which states that companies that are able to manage strategic resources effectively will gain a competitive advantage and improve company performance. In this context, intellectual capital is indeed seen as an intangible asset that can create added value, but in this study these benefits have not been reflected in stock returns. These findings are in line with research Aprilia & Isbanah (2019) which also concludes that Intellectual Capital has no effect on Share Return.

The Effect of Firm Size on Stock Returns

The results of the study show that Firm Size does not have a significant effect on Stock Return. The results of linear regression analysis show that the change in Firm Size is not related to the change in Stock Return. Therefore, H0 is accepted and H2 is rejected. These findings show that the size of the company has not been able to significantly affect stock returns. This indicates that investors do not only consider the size of the company in determining investment decisions, but also on the As a manufacturing company in the food & beverage sector listed on the Indonesia Stock Exchange, investors tend to pay more attention to the company's financial performance, such as sales growth, profitability, and operational efficiency rather than total assets that reflect the size of the company. Even though the company has a large size, it does not necessarily guarantee the company's ability to generate higher returns for investors. In addition, relatively small food & beverage companies also still have the opportunity to produce good performance and provide attractive growth prospects so that company size is not a major consideration in investment decisions. Theoretically, these results are less in line with the Signaling Theory which states that the size of a large company can be a positive signal for investors because large companies are considered to have operational stability, better access to funding, and lower risk. However, in this study, the signal is not strong enough to encourage an increase in stock returns. These findings are in line with research ldina K. Fitroh & Fauziah (2022) which also concludes that Firm Size has no effect on Stock Return.

Profitability Moderates the Relationship between Intellectual Capital and Stock Returns

The results of the study show that that Profitability is not able to moderate the relationship between Intellectual Capital and Stock Return. Therefore, H0 is accepted and H3 is rejected. These findings show that profitability has not been able to strengthen the relationship between intellectual capital and stock returns. This indicates that investors do not see profitability as a factor that can strengthen the influence of intellectual capital on increasing stock returns. On A food & beverage sector manufacturing company listed on the Indonesia Stock Exchange, investors tend to pay more attention to the company's financial performance directly, such as profit growth, sales, cash flow, and market conditions that affect the company's prospects. Although the company has a high level of profitability, investors do not necessarily attribute these achievements to the success of intellectual capital management. In addition, in the food & beverage sector, profitability can be influenced by various factors such as raw material prices, production costs, public consumption levels, and economic conditions, so that the influence of intellectual capital on stock returns does not become stronger even though the company is able to generate high profits. Theoretically, this result is not in line with Resource-Based Theory (RBT), intellectual capital is a strategic resource that can increase a company's competitive advantage if managed optimally. Profitability does reflect the effectiveness of managing a company's resources, including intellectual capital, but in this study, profitability is not strong enough to be a variable that strengthens the relationship. These findings are in line with research Setiawaty (2023) which concludes that ROA cannot moderate the relationship between structural capital value added and stock returns

Profitability Moderates the Relationship between Firm Size and Stock Returns

The results of the study show that Profitability is not able to moderate the relationship between Firm Size and Stock Return. Therefore, H0 is accepted and H4 is rejected. These findings indicate that profitability has not been able to strengthen the relationship between

firm size and stock returns. This shows that investors not only consider the size of the company and the level of profitability in determining investment decisions, but in manufacturing companies in the food and beverage sector listed on the Indonesia Stock Exchange, investors tend to pay more attention to the company's ability to generate sustainable profits, maintain operational efficiency, and maintain market share rather than just looking at the size of the company's assets. Although the company has a large size and a high level of profitability, this condition is not necessarily a guarantee that the company will provide higher stock returns to investors. In addition, in the food & beverage sector, the company's performance is also influenced by various external factors such as fluctuations in raw material prices, changes in people's purchasing power, the level of industrial competition, and economic conditions. As a result, profitability has not been able to strengthen the influence of company size on stock returns. Theoretically, this result is not in line with signaling theory, large companies with high levels of profitability should give a positive signal to investors about the company's stable condition and good prospects. However, the results of this study show that the signal is not strong enough to significantly increase stock returns.

Intellectual Capital and Firm Size Simultaneously Affect Stock Returns

The results of the study show that intellectual capital and firm size simultaneously do not have a significant effect on stock returns. Therefore, H0 is accepted and H5 is rejected. These findings show that Intellectual Capital and Firm Size have not been able to influence Stock Returns together. This indicates that investors do not only consider the company's internal factors, such as the ability to manage intellectual capital and the size of the company in making investment decisions, but in manufacturing companies in the food & beverage sector listed on the Indonesia Stock Exchange, investors generally pay more attention to the company's financial and operational performance which is reflected through sales growth, profit levels, production efficiency, and the company's ability to maintain market share. In addition, the food & beverage sector is an industry that is greatly influenced by changes in raw material prices, people's purchasing power, competition levels, and economic conditions. As a result, even though the company has good intellectual capital and a large company size, these two factors are not necessarily the main considerations for investors in assessing investment prospects and making stock purchase decisions. Theoretically, the results of this study are not in line with signaling theory, companies that have high intellectual capital and large company sizes should be able to give positive signals to investors about the company's future prospects. This signal is expected to increase investor interest in the company's shares so that it has an impact on increasing stock returns. However, the results of this study show that these signals are not strong enough to significantly affect stock returns.

CONCLUSION

This study aims to analyze the influence of Intellectual Capital and Firm Size on Stock Returns with Profitability as a moderation variable in manufacturing companies in the Food and Beverage sector listed on the Indonesia Stock Exchange for the period 2020–2024. Based on the results of data analysis and hypothesis testing that has been carried out, it was found that Intellectual Capital has no significant effect on Stock Return. These results show that the company's ability to manage intellectual assets has not been able to provide a strong enough signal for investors to increase the return on investment obtained. Thus, the change in the value of Intellectual Capital does not directly affect the change in the Company's Share Return.

In addition, Firm Size also does not have a significant effect on Stock Return. These findings indicate that company size, which reflects the size of the assets owned, is not yet the main factor that investors consider when making investment decisions in the Food and Beverage sector. Therefore, company size has not been able to be an effective indicator in predicting stock returns.

The results of the study also show that Profitability is not able to moderate the relationship between Intellectual Capital and Stock Return. This means that the level of profitability of the company cannot strengthen or weaken the influence of Intellectual Capital on Stock Returns. Similarly, Profitability is not able to moderate the relationship between Firm Size and Stock Return. These findings show that the company's ability to generate profits has not been able to increase the influence of company size on the returns received by investors.

Simultaneously, Intellectual Capital and Firm Size also do not have a significant effect on Stock Return. These results indicate that these two variables together have not been able to explain the change in Stock Return in manufacturing companies in the Food and Beverage sector during the study period. Thus, stock returns are likely to be more influenced by other factors outside the research model, such as macroeconomic conditions, market sentiment, company policies, investment risks, and other external factors that are not studied in this study.

This research contributes to the development of literature related to Intellectual Capital, Firm Size, Profitability, and Stock Returns, especially in manufacturing companies in the Food and Beverage sector in Indonesia. However, this study has several limitations, including being limited to one industry sector and a relatively short observation period. Therefore, further research is recommended to expand the scope of the research sector, increase the observation period, and consider other variables that have the potential to affect Stock Returns, both as independent, mediated, and moderation variables, so as to produce a more comprehensive research model.

REFERENCES

Amirullah, H. R., Dharma, F., & Putri, W. R. E. (2021). The Influence of Intellectual Capital on Company Value during the COVID 19 Pandemic with Profitability as a Moderation Variable. *Journal of Business and Economics Accounting*, *7*(2), 2039–2050.

Aprilia, D., & Isbanah, Y. (2019). *The influence of intellectual capital on stock returns through financial performance in companies in the consumer goods industry sector in the IDX in 2012-2017*. *Sec. 7*.

Azzahra, F., & Mulyandini, V. C. (2025). *Unlocking Sustainable Firm Performance : The Influence of Sustainability Reporting , Green Accounting , and Intellectual Capital*. *7*(4).

Balqis, B., & Buana, U. M. (2021). *DETERMINATION OF EARNINGS PER SHARE AND STOCK RETURN: RETURN ON ASSET ANALYSIS, DEBT TO EQUITY RATIO, AND*. *2*(5), 665–675.

Binekasri, R. (2024). IDX Outspoken About Iran-Israel War Affects Indonesia's Stock Market Read CNBC Indonesia's article "IDX Outspoken About Iran-Israel War Affects Indonesian Stock Market" here: https://www.cnbcindonesia.com/market/20240416100741-17-530586/bei-blak-bl. *CNBC Indonesia*.

Dzakwan, N., Fariantin, E., Setiawati, E., & Mataram, A. (2023). The effect of roa, npm,

eps, and pbv on the stock price of the energy sector listed on the IDX. *Journal of Ganec Swara*, *17*(1).

Eduardus Tandelilin, M. B. A., & C. WM., C. S. A. (2017). *Capital markets: Portfolio and investment management*. Pt Kanisius.

Firm, S. L. (2023). The Impact of the Financial Crisis on the Capital Market. *A law firm*.

Fitriani, W., & Desmiza, D. (2024). The Effect of Exchange Rate, Inflation, Leverage, and Firm Size on Stock Price Volatility (Case Study on IDX30 Companies on the Indonesia Stock Exchange for the 2018-2022 Period). *J-MAS (Journal of Management and Science), 9*(1), 427. https://doi.org/10.33087/jmas.v9i1.1662

Fitroh, Ldina K., & Fauziah, F. E. (2022). *Journal of Islamic Economic Recognition The Effect of Return on Asset, Firm Size and Price Earning Ratio on Stock Returns*. *1*(1), 135–146.

Fitroh, A. K. (2022). *The Effect of Return on Asset, Firm Size, and Price Earning Ratio on Stock Returns*. *1*(1), 135–146.

Guntoro, R., & Arrozi, M. (2020). The influence of intellectual capital and earnings per share on stock prices. *JCA Economics*, *1*(1), 316–326.

Handayani, D. N., & Destriana, N. (2021). Factors that affect the stock return of a manufacturing company. *Journal of Accounting*, *1*(1), 13–24.

Haspramudilla, D. (2024). Global economic uncertainty is increasing. *Financial Media*.

Jayanti, D., & Romli, R. (2023). The Influence of Intellectual Capital on the Performance of UMKM Tempe Craftsmen in Sukabumi City. *Journal of Economics, Finance and Accounting Studies*, *5*(1), 16–25. https://doi.org/10.32996/jefas.2023.5.1.2

Jogiyanto, H. (2010). Portfolio theory and investment analysis. *Seventh Edition. BPFE. Yogyakarta*, 579–591.

Kustinah, S. (2022). Influence Of Intellectual Capital and Managerial Ownership On Sustainability Finance The Influence Of Intellectual Capital and Managerial Ownership On Sustainability Finance. *Jurnal Ilmiah Akuntansi Dan Keuangan*, *5*(2), 2022.

Natalia, D., Manurung, D. N., Nduru, F., & Road, W. (2020). *Firm size to the stock price*. *4*(3), 472–492.

Pulic, A. (2000). VAICTM – an accounting tool for IC management. *International Journal of Technology Management*, *20*(5–8), 702–714. https://doi.org/10.1504/IJTM.2000.002891

Ramdiani, & Iradianty. (2022). The Effect of Roa, Roe, Eps, Der, Tato and Firm Size on Stock Returns of Transportation and Logistics Companies. *MEA (Management, Economics, and Accounting) Scientific Journal*, *6*(2), 884–893.

Romli, R., Jayanti, D., Lestari, D. I., & Adi, P. P. (2023). Analysis of the Influence of Third Party Fund Composition, BI Rate, and Firm Size on Corporate Loan Prime Lending Rate. *Portfolio: Journal of Economics, Business, Management, and Accounting*, *20*(2), 1–19. https://doi.org/10.26874/portofolio.v20i2.381

Septiana, A., & Wahyuni, W. (2021). *THE INFLUENCE OF INTELLECTUAL CAPITAL AND CORPORATE SOCIAL RESPONSIBILITY DISCLOSURE ON STOCK RETURNS*. *17*(April), 68–71.

Setiawaty, I. (2023). *The Influence of Intellectual Capital on Stock Prices with Profitability as a Moderation Variable*. Hasanuddin University.

Setyowati, N., & Prasetyo, T. U. (2021). *Size of Pharmaceutical Company Stock Return on the IDX for the 2017-2019 Period*. *2*(1), 101–112.

Ulum, I. (2017). *INTELLECTUAL CAPITAL: Measurement Model, Disclosure*

Framework & Organizational Performance. UMMPress.

Wahyuni, D., Malikah, A., & Afifudin. (2021). *THE EFFECT OF INTELLECTUAL CAPITAL ON STOCK RETURNS AND FINANCIAL PERFORMANCE IN REAL ESTATE AND PROPERTY COMPANIES LISTED ON THE IDX IN 2016-2019*. *10*(08), 63–72.

Yulianti, D., & Rahmah, N. A. (2022). The Effect of Profit Persistence, Profitability and Company Measurement on Profit Quality in Manufacturing Companies in the Food and Beverage Sub-Sector Listed on the IDX in 2016-2020. *Accounting Global Journal*, *6*(2), 124–153. https://doi.org/10.24176/agj.v6i2.7520