



## Green Intellectual Capital, Asset Growth on Stock Return: Role Financial Performance as Intervening

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### ABSTRACT

**Purpose** – The Purpose of study was to determine the effect of green intellectual capital on stock returns with financial performance as an intervening variable. **Methodology** – This study uses a sample of agricultural sector companies listed on the Indonesia Stock Exchange during the 2018-2022 period. The sampling technique used purposive technique, the samples obtained were 20 agricultural sector companies or 100 data observations. The analysis method used is panel data regression analysis and path analysis using Eviews.12. **Findings** – Based on the research results, it shows that together green intellectual capital, asset growth and financial performance have an effect on stock returns. Meanwhile, partially asset growth has a positive and significant effect on stock returns. Financial performance has a positive and significant effect on stock returns. Green intellectual capital has no effect on stock returns. Green Intellectual capital has a positive and significant effect on financial performance. Asset growth has no effect on financial performance. Financial performance is able to mediate the effect of green intellectual capital on stock returns. Financial performance is unable to mediate the effect of asset growth on stock returns.

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### INTRODUCTION

Indonesia is the largest palm oil producing country in the world. Based on the phenomenon that occurred in 2021 where there was a spike in oil prices, this influenced the increase in commodity prices, one of which was palm oil. In 2021, the price of palm oil even touched a record high, this made CPO shares (Crude Palm Oil) is much sought after by investors because global palm oil prices continue to experience sharp increases and have a positive impact on the increase in share prices of issuers operating in the palm oil industry.

The palm oil industry is a plantation sector within the agricultural sector which is a driver of economic growth. The agricultural sector has functions that include aspects of production, food security, improving farmers' welfare, alleviating poverty, and preserving the environment.

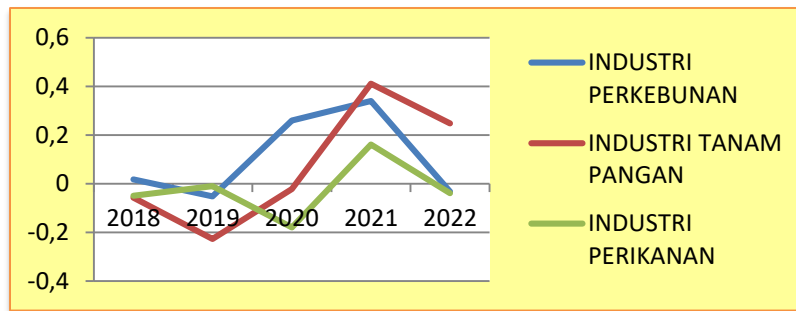


Figure 1. Comparative graph of stock returns in the agricultural sector consisting of 3 industrial sub-sectors in 2018 and 2022

Based on the graph above, it shows that it is fluctuating, where there are ups and downs in the level of stock returns in 2020-2022. However, with the phenomenon that occurred in 2021, agricultural sector companies, especially in the plantation sector, experienced an increase in stock returns. Published information becomes a signal for investors to make investment decisions. Because an increase in the number of investors can increase share prices, as share prices increase, returns will also increase. The increase in share prices in each period shows that the level of stock returns continues to increase. The level of stock returns obtained by investors is determined based on fluctuations in stock prices in the market (Aprilia & Isbanah, 2019).

The newest global issue currently is environmental awareness, this factor is being discussed in every community and business circles. In an effort to achieve sustainability in business, companies must take into account the resources and assets they own. Green intellectual capital is a field of science which is a strategy for preserving the environment in competing with competitors (Tonay & Murwaningsari, 2022).

The results of previous research have examined green intellectual capital on financial performance and stock returns. Research Sugiyanto & Febrianti (2021) shows that green intellectual capital has a significant effect on future stock returns, while future stock returns have no implications for stock returns. Research Adiwibowo (2022) states that intellectual capital has a significant effect on stock returns. Research indicates that IC has an influence on financial and hospital performance.

An increase in assets followed by an increase in operating results will further increase external parties' confidence in the company. The amount of assets owned by the company as company collateral to creditors for the funds invested (Luwih & Muliarta RM, 2018). Asset growth is a change (decrease or increase) in the total assets owned by the company. Asset growth is calculated as the percentage change in assets in a certain period compared to the previous year. The greater the company's asset growth, the greater the profit generated, so that the return obtained will be greater (Fauzi & Puspitasari, 2021).

**Table 1. Results of PBV ratio calculations in the agricultural sector during 2018-2022**

Share	Price Share					PVB				
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
AALI	Rp11.825	Rp14.575	Rp12.325	Rp9.500	Rp8.025	1,82	1,48	1,23	0,86	0,69
ANDI	Rp2.000	Rp50	Rp53	Rp53	Rp50	15,2	0,36	0,40	0,40	0,39
BWPT	Rp164	Rp157	Rp144	Rp74	Rp65	0,89	1,07	1,30	1,13	1,00
DSNG	Rp410	Rp460	Rp610	Rp555	Rp496	1,19	1,31	1,04	0,84	0,64
LSIP	Rp1.250	Rp1.485	Rp1.375	Rp1.185	Rp1.015	1,02	1,19	1,01	0,79	0,63
PALM	Rp260	Rp200	Rp344	Rp870	Rp635	1,15	0,69	0,64	1,06	0,78

The results in table 1 from the processed data show that the average PBV ratio of plantation

shares is at 1, meaning that companies with low PBV consistently have higher returns than companies with high PBV. According to Sihombing (2018) this valuation ratio is very good for predicting future levels of return.

From the author's background, where there is a phenomenon that in 2021, oil palm plantation companies experienced a spike in oil prices which influenced the increase in share prices for issuers operating in the palm oil industry, so plantation companies are the object of this research.

## **LITERATURE REVIEW**

### **Signalling Theory**

The main theoretical basis in this research is Signaling theory according to Ross (1977), the importance of information released by the company on the investment decisions of outsiders. Information is an important element for investors and business people because information essentially presents information, notes or images for past, present and future conditions (Sugiyanto & Febrianti, 2021). If the company presents information related to financial performance in financial reports and other disclosures such as intellectual capital that is knowledgeable about the environment so that when investors see the company's financial reports, investors do not feel lied to. Investors can choose which companies are suitable and appropriate to invest in (Toyibah & Ruhiyat, 2023).

### **Stakeholder Theory**

The company not only focuses on investors' business interests, but also ethical interests that affect society and government. To be able to create added value for stakeholders, companies need to maximize company resources and company strategic information must be conveyed, including information related to intellectual capital, which is important to convey to stakeholders. The relationship between stakeholder theory and intellectual capital includes all knowledge of human and organizational resources and their ability to create added value (Landion & Lastanti, 2019).

### **Stock Return**

Stock Return are a form of return on share investment expected by investors Adiwibowo (2022). Stock returns are able to predict company performance in the future with high returns that can generate profits, where profits are able to develop company performance in the future (Sugiyanto & Febrianti, 2021).

According to Christiana et al (2021) Stock returns consist of two types, positive stock returns and negative stock returns. If the stock return is positive, it will make a profit, while if the stock return is negative, it will experience a loss. Share return is the difference between the purchase price of shares and the sale price of shares plus dividends. Return is the result obtained from an investment or the level of profit enjoyed by investors on an investment they make. Return is the reward obtained from investment. Therefore, investors will not invest assets that will not produce results. Of course investors must analyze the share price of the company. For decision makers, information related to financial reports is very important in analyzing whether the company's performance is good or not in good condition (Setyawati & Irwanto, 2020).

### **Green Intellectual Capital**

Green intellectual capital is recognized as a new strategy in developing companies based on environmentally friendly concepts. Green intellectual capital is important in influencing company performance. According to Tonay & Murwaningsari (2022) green intellectual capital is a breakthrough, therefore companies will be able to differentiate themselves from their competitors. The development, understanding and utilization of intellectual capital in a company can help improve the entity's financial performance, thereby increasing stakeholder confidence in its survival, which will influence the company's stock returns.

Companies must be able to manage their resources and capital with more care for the environment, so that they can improve the company's financial performance in the eyes of stakeholders (Chandra & Augustine, 2019). Regarding green intellectual capital, it can be assumed that the higher the green intellectual capital, the higher the company's financial performance.

Based on previous research conducted by researchers Chandra & Augustine (2019), it is stated that the green intellectual capital index has an effect on financial performance. Landion & Lastanti (2019) states that there is a positive influence between intellectual capital on financial performance.

H1 :Green intellectual capital has a effect on stock return.  
H3:Green intellectual capital has a effect on financial performance.

**Asset Growth**

According to research Diansyah & Gunawan (2022) a high asset growth rate shows that the company is able to develop. A growing company is a company that experiences increased growth in its business development from year to year. This will attract investors to buy shares in the company. So that the company's growth can see the opportunity to gain profits from investment in the form of returns. In line with signaling theory, companies that are able to show higher asset growth performance will be chosen by investors as investment alternatives.

The aim of increasing investment is for the company to grow into a larger company and be able to compete on a larger economic scale to gain profits and provide maximum wealth for the company owner, with the achieved company growth being able to improve financial performance. Based on previous research examined by research (Nemati et al., 2021); (Fauzi & Puspitasari, 2021); (Sunardi & Sasmita, 2019) stated that asset growth has a positive and significant relationship with financial performance.

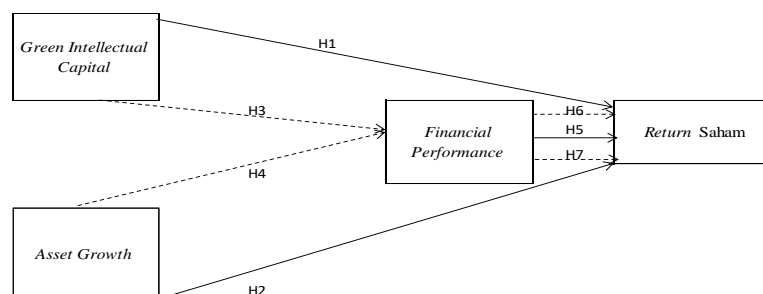
H2 : Asset growth has a effect on stock return.  
H4 : Asset growth has a effect on financial performance.

**Financial Performance**

Information about financial performance is a signal given by the company to investors regarding prospects and assessments in making investment decisions. Price to Book Value Ratio analysis is one of the most recommended for investors. Companies with low PBV consistently have higher returns compared to companies with high PBV (Sihombing, 2018). Company performance is a formal activity carried out by a company to evaluate the efficiency and effectiveness of company activity records in a certain time period (Fauzi & Puspitasari, 2021).

According to Chandra & Augustine (2019)When a company is in a position to have high capabilities in managing company assets and equity, managing its human resources and also the ability to increase its competence and competitive advantage, then this will increase the company's operational activities, so that profits will also increase and the company's financial performance will increase. Asset growth is a key factor for improving financial performance, reducing risk, and achieving stability (Nemati et al., 2021). According to Fauzi & Puspitasari (2021), asset growth is an important consideration for managers in corporate business, especially in investing in after-tax income and improving better financial performance in terms of overall company growth

H5 :Financial performance has a effect on stock return.  
H6: Financial performance mediates green intellectual capital on stock returns.  
H7: Financial performance mediates asset growth on stock returns.



**Figure 2. Conceptual Framework**

## METHOD

The independent variables used are green intellectual capital (X1) and asset growth (X2), the intervening variable is financial performance (Y1), and the dependent variable is stock returns (Y2). This research uses quantitative methods. The data source in this research is secondary data obtained from annual reports and personal websites of related companies. The sampling technique used was purposive sampling consisting of 20 samples of agricultural sector companies. Data analysis uses panel data regression and path analysis (Sobel test). Sample selection criteria are presented in Table 2

**Table 2 Sampe Criteria**

No	Sample Criteria	Violation of Criteria	Amount
1	Agricultural sector companies listed on the IDX during the 2018-2022 observation period		44
2	Agricultural sector companies that have annual reports and financial reports for the 2018-2022 period	23	21
3	Agricultural sector companies that have consecutive share price information during the 2018-2022 observation period	1	20
	Sample		20
	Observasi data of 2018-2022		5
	Total Sample		100

In this study, a brief overview of variable measurements is presented in Table 3

**Table 3. Variable measurements.**

Variable Code	Variable Name	Measurement	Sources
Y <sub>2</sub>	Stock Return	$RS = \frac{P(t) - P(t-1) + D(t)}{P(t-1)}$	(Sugiyanto & Febrianti 2021)
Y <sub>1</sub>	Financial Performance(PB)	PBV= Market Per Share / Book Value per share	(Sihombing : 30 2018)
X <sub>1</sub>	Green Intellectual	$GICI = \frac{n}{k}$	(Chandra & Augustine, 2019)
X <sub>2</sub>	Asset Growth	$AGR(t) = \frac{Total Asset (t) - Total Asset (t-1)}{Total Asset (t-1)} \times 100\%$	(Rahman, 2020)

## RESULT AND DISCUSSION

### Descriptive statistics

Table 4 shows descriptive statistics for the entire sample consisting of 20 agricultural sector companies or 100 observation data. The research results show that the average stock return value is 0.09, GIC is 0.53, Asset Growth is 0.04 and Financial Performance is 1.18

**Table 4. Descriptive Variable**

RS	GIC	ASSET GROWT	FP
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Mean	0.095310	0.536200	0.042276	1.183700
Median	-0.035000	0.590000	0.029600	0.945000
Maximum	3.690000	0.760000	0.735200	5.260000
Minimum	-0.880000	0.060000	-0.450200	0.040000
Std. Dev.	0.569180	0.169180	0.150158	1.099150

Source: Eviews.12 data processing output, 2023

Based on tables 5-8, it can be seen that to determine the most appropriate model from the three types of models, namely the common effect model, fixed effect model, or random effect model, each model was tested using the Chow test, Hausman test, and Lagrange Multiplier test. The test results can be seen in the following table:

**Table 5. Result of Chow-test Model 1**

Redundant Fixed Effect Tests			
Equation: Untitled			
Test cross-section fixed effects			
Effect Test	Statistics	d.f	Prob.
Cross-section F	1.637636	(19,77)	0.0679
Cross-section Chi-square	33.939076	19	0.0187

Source: Eviews.12 data processing output, 2023

**Table 6 Result of Hausman test Model 1**

Correlated Random Effect - Hausman Test			
Equation: Untitled			
Test cross-section random effects			
Test Summary	Chi-Sq.Statistic	Chi-Sq.d.f	Prob.
Cross-section random	8.702519	3	0.0335

Source: Eviews.12 data processing output, 2023

**Table 7. Result of Chow-test Model 2**

Redundant Fixed Effect Tests			
Equation: Untitled			
Test cross-section fixed effects			
Effect Test	Statistics	d.f	Prob.
Cross-section F	13.088379	(19,78)	0.0000
Cross-section Chi-square	143.226981	19	0.0000

Source: Eviews.12 data processing output, 2023

**Table 8 Result of Hausman test Model 2**

Correlated Random Effect - Hausman Test			
Equation: Untitled			
Test cross-section random effects			
Test Summary	Chi-Sq.Statistic	Chi-Sq.d.f	Prob.
Cross-section random	10.855311	2	0.0044

Source: Eviews.12 data processing output, 2023

From the results of panel data regression model testing for model 1 and model 2 in table 9 the best model is the Fixed Effect Model. Because the results of the Chow test and Hausman test in table 5-8 above obtained a chi-square prob value  $< 0.05$ , between common effect, fixed effect and random effect models, the best model is the fixed effect model.

**Table 9 Conclusion Test Results with Panel Data Regression**

No	Method	Testing	Result
1	“Chow-Test”	<i>Common Effect Model vs Fixed Effect Model</i>	<i>Fixed Effect Model</i>
2	“Hausman-Test”	<i>Fixed Effect Model vs Random Effect Model”</i>	<i>Fixed Effect Model</i>

### Hypothesis Test Results

#### F Statistical Test Results

The F test aims to test the influence of independent variables together or simultaneously on dependent variables, as in the following table.

**Table 10 F-test Results Model 1**

R-squared	0.352345	Mean dependent var	0.095310
Adjusted R-squared	0.167300	S.D. dependent var	0.569180
S.E. of regression	0.519390	Akaike info criterion	1.726313
Sum squared resid	20.77201	Schwarz criterion	2.325502
Log likelihood	-63.31566	Hannan-Quinn criter.	1.968816
F-statistic	1.904110	Durbin-Watson stat	3.173514
Prob(F-statistic)	0.020646		

Source: Eviews.12 data processing output, 2023

**Table 11. F-test Results Model 2**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.590223	0.474090	-1.244959	0.2169
GIC	0.496946	0.908335	0.547095	0.5859
ASSET_GROWTH	1.031298	0.428252	2.408158	0.0184
FINANCIAL_PERFORMANCE	0.317201	0.101045	3.139193	0.0024

Source: Eviews.12 data processing output, 2023

Based on the table 10 and 11, it is known that the value of Prob. (F-statistics)  $< 0.05$ , so it can be concluded that the independent variable has an effect on the dependent variable.

#### Coefficient of Determination Test

The statistical values of the coefficient of determination are in the following table.

**Table 12. Coefficient of Determination Model 1**



R-squared	0.352345	Mean dependent var	0.095310
Adjusted R-squared	0.167300	S.D. dependent var	0.569180
S.E. of regression	0.519390	Akaike info criterion	1.726313
Sum squared resid	20.77201	Schwarz criterion	2.325502
Log likelihood	-63.31566	Hannan-Quinn criter.	1.968816
F-statistic	1.904110	Durbin-Watson stat	3.173514
Prob(F-statistic)	0.020646		

Source: Eviews.12 data processing output, 2023

**Table 13 Coefficient of Determination Model 2**

R-squared	0.779095	Mean dependent var	1.183700
Adjusted R-squared	0.719621	S.D. dependent var	1.099150
S.E. of regression	0.582009	Akaike info criterion	1.946877
Sum squared resid	26.42128	Schwarz criterion	2.520014
Log likelihood	-75.34384	Hannan-Quinn criter.	2.178836
F-statistic	13.09969	Durbin-Watson stat	1.169271
Prob(F-statistic)	0.000000		

Source: Eviews.12 data processing output, 2023

**Statistical t-test results**

The t-statistical test basically shows how much influence an independent variable individually has in explaining the dependent variable.

**Table 14 t-test Result Model 1**

Source: Eviews.12 data processing output, 2023

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.590223	0.474090	-1.244959	0.2169
GIC	0.496946	0.908335	0.547095	0.5859
ASSET_GROWTH	1.031298	0.428252	2.408158	0.0184
FINANCIAL_PERFORMANCE	0.317201	0.101045	3.139193	0.0024

**Table 15 t-test Result Model 2**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.096866	0.531134	-0.182376	0.8558
GIC	2.376573	0.981631	2.421045	0.0178
ASSET_GROWTH	0.147788	0.479591	0.308155	0.7588

Source: Eviews.12 data processing output, 2023

**Path Analysis Testing**

Sujarweni (2016) said that path analysis testing is used to show that independent variables can have a direct effect on the dependent variable and can also have an indirect effect on the dependent variable



through intervening variables. Researchers use path analysis tests with the following regression equation:

Model1. Stock Return (Y2)=  $\beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3Y_1 + \epsilon_1$

Model 2. Financial performance (Y1) =  $\beta_0 + \beta_4X_1 + \beta_5X_2 + \epsilon_2$

Based on testing, the model test on model 1 chosen is the Fixed effect model which can be arranged with the following equation:

**Table 16 Election Results Model 1**

Model 1		Fixed Effect Model	
Variable	Coefficient	t-Statistic	Std.Error
C	-0,590223	-1,244959	0,474090
GIC	0,496946	0,547095	0,908335
AG	1,031298	2,408158	0,428252
FP	0,317201	3,139193	0,101045
R-squared	0,352345		
F-statistic	1,904110		

Source:

Secondary

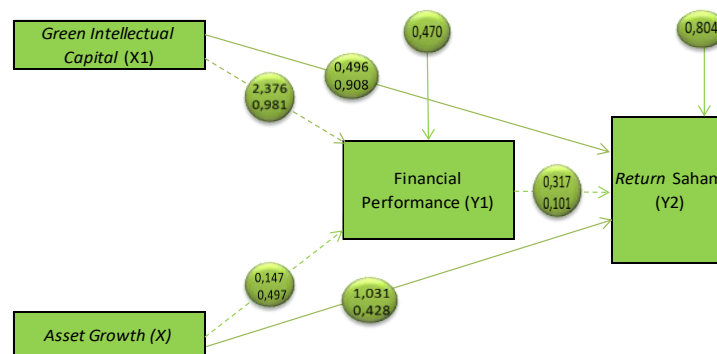
data processed, 2023

Based on the model test in table 17, model 2 chosen is the Fixed effect model which can be arranged with the following equation:

**Table 17 Election Results Model 2**

Model 2		Fixed Effect Model	
Variable	Coefficient	t-Statistic	Std.Error
C	-0,096866	-0,182376	0,531134
GIC	2,376573	2,421045	0,981631
AG	0,147788	0,308155	0,479591
R-squared		0,779095	
F-statistic		13,09969	

Source: Secondary data processed, 2023



**Figure 3 Result of path analysis**

According to Sujarweni (2016) to answer whether there is an indirect influence using Sobel test analysis. The formula is as follows:

$$Sab = b_2 Sa_2 + a_2 Sb_2 + Sa_2 Sb_2$$

$$t = \frac{ab}{sab}$$



Where :

a: Regression coefficient of the independent variable on the mediating variable

b : Regression coefficient of the mediating variable on the dependent variable

Sa2: Standard error of estimation of the influence of the independent variable on the mediating variable

Sb2: Standard error of estimation of the influence of the mediating variable on the dependent variable

Testing the mediation effect in this research is a simple test to determine whether there is an indirect effect. The calculation of coefficients, standard errors and t-calculated values for indirect effects are presented as follows:

1. Green Intellectual capital through financial performance on stock returns

$$a = 2,376 \quad Sa = 0,981$$

$$b = 0,317 \quad Sb = 0,101$$

$$Sab = \sqrt{b^2 Sa^2 + a^2 Sb^2 + Sa^2 Sb^2}$$

$$Sab = \sqrt{((0,317)^2(0,981)^2 + ((2,376)^2 (0,101)^2 + ((0,981)^2 (0,101)^2)}$$

$$= 0,405$$

$$t = ((2,376)(0,317))/0,405 = 1,859$$

To determine the indirect effect of GIC on stock returns through financial performance, use the t-table t test (n; 0.05) (100-1; 0.05) = 1.66039 while the calculated t-value is 1.859. Based on the results of t-count of 1.859 > t-table (1.660) so H0 is accepted, meaning there is an indirect influence between GIC on stock returns through financial performance, a positive influence of 0.157, so it can be concluded that the actual influence is indirect.

2. Asset growth through financial performance on stock returns.

$$a = -0,147 \quad Sa = 0,497$$

$$b = 0,317 \quad Sb = 0,101$$

$$Sab = \sqrt{b^2 Sa^2 + a^2 Sb^2 + Sa^2 Sb^2}$$

$$Sab = \sqrt{((0,317)^2(0,497)^2 + ((0,147)^2 (0,101)^2 + ((0,497)^2 (0,101)^2)}$$

$$= 0,166$$

$$t = ((0,147)(0,317))/0,166 = 0,280$$

To determine the indirect effect of asset growth on stock returns through financial performance, use the t-table t test (n; 0.05) (100-1; 0.05) = 1.660 while the t-count value is 0.280. Based on the t-count results of 0.280 < t-table (1.660), H0 is rejected, meaning there is no indirect influence between asset growth on stock returns through financial performance, so it can be concluded that the actual influence is direct.

## Discussion

### Effect of green intellectual capital on stock returns

The 1st hypothesis in this research is that green intellectual capital influences stock returns. Based on the results of statistical tests, the t-count value is 0.547 < 1.660 (t-table) and has a significant level of 0.58 > 0.05, so it can be concluded that green intellectual capital has no direct significant effect on stock returns. So Hypothesis 1 in this study is rejected. The results of this research are not in line with the results of research conducted by (Adiwibowo, 2022); (Christiana et al., 2021); (Setyawati & Irwanto, 2020) which states that Intellectual capital has a significant effect on stock returns. Green intellectual capital is the latest development of intellectual capital so that investors still do not use this indicator to make investment decisions so it has no influence on stock returns. The conclusion in the results of this research is for companies to develop the company to attract the interest of potential investors so they can invest in the company, they must develop new strategies to implement environmentally friendly concepts and provide environmental knowledge education to the company's human resources to increase added value for the company and improve the company's good image.

### Effect of asset growth on stock returns

The second hypothesis in this research is that asset growth influences stock returns. Based on the test results in statistical tests, the t-count was  $2.408 > 1.660$  (t-table) and the significant value was  $0.01 < 0.05$ , so it can be concluded that asset growth has a significant positive direct effect on stock returns. So the second hypothesis in this study is accepted. The results of this research are in line with the results of research conducted by (Firmansyah et al., 2020) which states that asset growth has a positive effect on stock returns. Diansyah & Gunawan (2022) are of the opinion that company growth has decreased and has not been followed by an increase in stock returns. This is because companies that are growing will require higher costs compared to companies whose growth is stable and steady. Because companies focus their funds more on company growth than on shareholder welfare. The hope from the results of this research is for agricultural sector companies to continue to increase asset growth so that the level of investor confidence in the company does not decrease.

### **Effect of financial performance on stock returns**

The third hypothesis in this research is that financial performance influences stock returns. Based on the results of statistical tests, the t-count value was  $3.139 > 1.660$  (t-table) with a significance level of  $0.002 < 0.05$ . From these results it can be concluded that financial performance has a significant positive effect on stock returns. The 3rd hypothesis in this research is accepted. The results of this research are in line with the results of research conducted by (Ayuningrum et al., 2021) which states that financial performance as measured using ROA, PER has a positive and significant effect on stock returns. Tetteh (2020) financial performance as measured by DER, ROE, EPS has a positive effect on stock returns. However, this research uses a different proxy, namely using PBV, from the results of PBV calculations in the agricultural sector, the average company has a PBV value of 1, which means the company's financial performance is good, thus giving a positive signal to investors in making investment decisions (Sihombing, 2018).

### **Effect of green intellectual capital on financial performance**

The fourth hypothesis in this research is that green intellectual capital has an effect on financial performance. Based on the results of statistical tests, the t-value obtained is  $2.421 > 1.660$  (t table) with a significance level of  $0.01 < 0.05$ , so it can be concluded that green intellectual capital has a significant positive effect on financial performance. The 4th hypothesis in this research is accepted. The results of this research are supported by research conducted by (Chandra & Augustine, 2019); (Renaldo & Augustine, 2022) which states that green intellectual capital has a positive effect on the company's financial performance. Because of the important role of the green management system carried out by the company so that it can improve the company's financial performance. Companies must be able to manage it by paying attention to the environment as well so that this can improve the company's financial performance in the eyes of stakeholders.

### **Effect of asset growth on financial performance**

The fifth hypothesis in this research is that asset growth influences financial performance. Based on the results of statistical tests, the t-value obtained is  $0.308 < 1.660$  (t-table) with a significance level of  $0.75 > 0.05$ , so it can be concluded that asset growth has no significant effect on financial performance. The 5th hypothesis in this study was rejected. The results of this research are not in line with research conducted by (Fauzi & Puspitasari, 2021); (Nemati et al., 2021); (Sunardi & Sasmita, 2019) which states that asset growth has a positive effect on financial performance. This is because asset growth in agricultural sector companies has a small average growth rate.

### **Financial performance mediates green intellectual capital on stock returns**

The sixth hypothesis in this research is that financial performance mediates GIC on stock returns. Based on the results of calculations using the Sobel test, the t-count value was  $1.859 > t\text{-table}$  (1.660), it can be concluded that financial performance is able to mediate the influence of GIC on stock returns. The 6th hypothesis in this research is accepted. Based on the results of direct testing, green intellectual capital has no significant effect on stock returns. These results are not in line with research (Sugiyanto & Febrianti, 2021) which states that GIC has a significant effect on future stock returns. And the results of financial performance testing have a significant positive effect on stock returns. These results are in



line with research (Awalacki & H.N, 2021); (Arrazy & Daryanto, 2021) who found that financial performance has a significant effect on stock returns.

After conducting indirect testing, it was found that GIC had a significant positive influence on financial performance. The results of this research are in line with research (Chandra & Augustine, 2019);(Renaldo & Augustine, 2022) who found that GIC had a significant positive effect on financial performance.

### **Financial performance mediates asset growth on stock returns**

The 7th hypothesis in this research is that financial performance mediates asset growth on stock returns. Based on the results of calculations using the Sobel test, the t-count value was  $0.280 < t\text{-table} (1.660)$ , it can be concluded that financial performance is unable to mediate the effect of asset growth on stock returns. The 7th hypothesis in this study was rejected. Based on the results of the direct influence of asset growth on stock returns, this result is in line with research (Firmansyah et al., 2020), however after going through the mediation route there is no influence of financial performance between asset growth and stock returns. This is because the results of the influence of asset growth on financial performance have no effect. These results are not in line with research (Nemati, Ali et al., 2021) which states that asset growth has a significant positive relationship with financial performance.

According to the opinion of Firmansyah et.al (2020) investors assess asset growth as a positive signal because companies that have increased asset growth have the opportunity to be able to create more certain profits and conditions in the future. This information is a good signal for investors because it is in line with the company's performance indicators. However, fluctuations in decreasing and increasing asset growth can provide a negative signal for investors, concluding that agricultural sector companies cannot manage their assets efficiently.

### **CONCLUSION**

Based on the results of statistical testing in this research, the following conclusions can be made: Green intellectual capital has no direct significant effect on stock returns. Asset growth has a significant positive direct effect on stock returns. Financial performance has a significant positive effect on stock returns. Green intellectual capital has a significant positive effect on financial performance. Asset growth has no significant effect on financial performance. Financial performance is able to mediate the influence of Green intellectual capital on stock returns. Financial performance is unable to mediate the effect of asset growth on stock returns.

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