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The Influence of Green Competitive Advantage to Value Relevance of Earning and Book Value

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Abstract — ***The purpose of this study is to analyze the empirical evidence of the effect of green competitive advantage on the value relevance of earnings and book value in terms of the stock price model and the cumulative abnormal return model (return model). The data used in this study is secondary data derived from annual reports and sustainability reports listed on the IDX-IC (IDX Industrial Classification) and taken from the Indonesia Stock Exchange (IDX) through the website (www.idx-ic.co .id). The research sample was taken by purposive sampling with a total of 110 observations. The results showed a significant positive effect of green competitive advantage on the value relevance of earnings, both the price model and the return model. Thus, information is said to be relevant if information on green competitive advantage can contribute to profits and react positively to the market, so that it can be used as a basis for decision making. The test results show that there is no significant negative effect for green competitive advantage on the value relevance of book value with the price model. However, the green competitive advantage for the return model has a significant negative effect on the value relevance of book value. These results indicate that investors fail to recognize the potential book value in the future. Thus the information is said to be irrelevant because the green competitive advantage information reflected in the book value is not responded to by the market. The results of this study indicate that the value relevance of earning and book value is non-linear.***

Keywords — **Green Competitive Advantage, Value Relevance of Earning, Value Relevance of Book Value, Price Model, Return Model.**

I. INTRODUCTION

Performance is the result of a series of processes at the expense of various resources owned by a company. One of the parameters in measuring company's performance is information about a company's profit. Profit is an increase in economic benefits during an accounting period in the form of income or changes in assets or decreases in liabilities resulting in an increase in equity that does not come from investment contributions. The value relevance of accounting information will be measured when stock prices fluctuate due to information presented by financial statements (Holthausen & Watts, 2001). When accounting information is useful and investors use it as a basis for making decisions, the reaction from investors will be reflected in stock prices.

The effect appears can be a decrease in stock prices which indicates the information content is *bad news* and vice versa (Murwaningsari and Utama, 2015). Accounting information which influences decision making and has value relevance is the company's equity and earning. According to Fischer dan Verrecchia, (2000) the measurement of value relevance of earnings relationship is the slope obtained from the regression of earnings to stock prices. According to Gu, (2007), value relevance gives meaning as the explanatory power of accounting information on stock returns and prices. So, it can be explained that value relevance is a statistical relationship between earnings and book value on stock prices or returns. The assumption of clear surplus accounting, according to Feltham, (1995) shows that book value can be expressed as a linear function of earnings and book value, however, subsequent empirical evidence shows that the effect of earnings and book value is non-linear (Burgstahler and Dichev, 1997). One of the company's efforts to maintain the information presented can influence investment decisions or have value relevance, namely through the invention of a green competitive advantage. According to Sang-Lyul Ryu & Jayoun Won, (2018), Sri Handayani & Yosevin Karnawati, (2021) green competitive advantage has an influence on the value relevance of earning and book value.

The definition of green competitive advantage is the ability to stay ahead of current or potential competition, this can be done by using various strategies in product manufacturing or product marketing (Gathua, 2014). A company is considered to have a green competitive advantage if it has an advantage over its competitors in attracting and retaining customers and defending against competitive forces (West, Ford, 2015). According to Papulova dan Papula, (2015) that a company has a green competitive advantage over its competitors when it offers better value to its customers, either through lower prices or by providing additional benefits and services. This study on green competitive advantage includes two dimensions: (1) taking advantage of market opportunities and (2) neutralizing threats (Sigalas, 2015). This process seems sufficient because it provides a clear and practical measure of green competitive advantage that can increase executive awareness about the conceptual nature and fundamental expression of green competitive advantage (Hadj et al, 2020). Therefore, the purpose of this study is to analyze empirical evidence of the effect of green competitive advantage on the value relevance of earning and book value in terms of the stock price model and the cumulative abnormal return (return model).

II. LITERATURE REVIEW

A. Signaling Theory

Signal theory basically focuses on efforts to reduce information asymmetry between two parties who each have different access to information. Signal theory describes how to behave when both parties have access to different information (Connelly et al, 2011). Companies give certain information signals to investors to show that they are better than other companies in the market for the purpose of attracting investment and increasing good reputation (Verrecchia, 1983). Signal theory is used in this study as a theoretical basis to examine the value relevance of earning and book value presented in the financial statements, in which its value relevance is potentially affected by green competitive advantage, which can be a signal for stakeholders.

B. Clean Surplus Theory

Clean surplus theory is the theory that underlies the value relevance of accounting information. This theory states that company’s value is reflected in accounting data contained in financial statements (Ohlson, 1995). Based on the theory of clean surplus, the stock market price can be shown in the income statement and balance sheet. The market value of the company can be understood as the company's expected aggregation profit in the future and the expected future book value of the company. The expected profit in the future provides sufficient information to calculate the present value in determining the value of the company (Ohlson, 1995). Therefore, the value relevance of earnings and book value are basic variables to determine company’s value.

C. Resource Based View Theory

Resources-based theory is a theory developed to analyze the competitive advantage of a company focuses on the advantages of knowledge or the economic that relies on intangible assets. In today's competition, companies are required to have a competitive advantage which is better than other companies but not all companies have it. In order to have a competitive advantage from its resources, the company needs to conduct research and development (R&D) so that existing products can be developed into higher value product than its competitors in the long term (Barney, 2012).

D. Hypothesis Development

Effect of green competitive advantage on value relevance of earning and book value

The signal theory is basically an effort to reduce information asymmetry between two parties, who has different access to information. Signal theory describes how to behave when both parties have access to different information. Competitive advantage can be a signal to create of value relevance of earning and book value (Connelly, et al 2011).

The results of research by Stanfield, (2005) state that green competitive advantage can increase market value, stock price, profit and income. Companies with high green competitive advantages will show the company's current situation and future growth potential (Wijayanto et al, 2019). This positive signal will affect decision making for investors and increase stock prices to make a positive contribution to company's value. According to Husted dan Salazar, (2006) define green competitive advantage as a condition in which a company occupies several positions among competitors and the company derives sustainability benefits from this environmental strategy.

The definition of competitive advantage according to Trigeorgis, (2018) is a condition that allows an organization to create superior economic value for its customers compared to competitors. Therefore, the concept of competitive advantage is directly related to the company's stock price (Asmussen, 2015). The results of research Chen & Lin, (2016) state that green competitive advantage is an important factor for companies in achieving sustainable financial performance improvements.

As the company has achieved a green competitive advantage, the company's next step is trying to signal certain information to investors to show that they are better than other companies in the market in order to attract investment and enhance a good reputation. According to Sri Handayani & Yosevin Karnawati, (2021), Sang-Lyul Ryu & Jayoun Won, (2018) stated that green competitive advantage has a positive effect on value relevance of company's value. Based on the description above, the following hypothesis is proposed:

H1 : Green competitive advantage has a positive effect on the value relevance of earning and book value using the price model.

H2 : Green competitive advantage has a positive effect on the value relevance of earning and book value using the return model.

III. METHOD

A. Research Design

The population in this study are companies listed on the Indonesia Stock Exchange in 2016-2020. The research sample was taken by purposive sampling, namely sampling using certain considerations and criteria, as follows: (1) Companies listed on the Indonesia Stock Exchange (IDX-IC) through the website (www.idx-ic.co.id) successively issue Sustainability Reports and Annual Reports during the 2016-2020 period, (2) Companies publish Annual Reports and completed Sustainability Reports according to the variables needed in the study, (3) Financial companies (Banks, Insurance, Financing Services, Investment Services) are not included due to product differences.

B. Operational Definition of Variable Measurement

Dependent Variable

Green Competitive Advantage

Green competitive advantage is a condition in which companies occupy several positions regarding environmental management or green innovation where their competitors cannot imitate their successful environmental strategies and they can derive sustainable benefits from these successful environmental strategies (Chen, 2011). According to Widiarsa dan Sulistyawati, (2018) Competitive advantage will provide added value for stakeholders that the company shows high competitiveness from its advantages.

The measurement uses an index that refers to Paul et al, (2022) and Chen, (2011) which contains 8 indicators, namely: 1) the company has a low cost competitive advantage regarding environmental management or green innovation compared to its main competitors; 2) the quality of environmentally friendly products or services offered by the company is better than the environmental friendly products or services of its main competitors; 3) the company is better able to carry out environmental R&D and green innovation than its main competitors; 4) companies are better able to manage the environment than large competing companies; 5) the profitability of the company with respect to environmentally friendly products or services is better; 6) the company's growth with respect to its green products or services exceeds that of its main competitors; 7) the company's main competitors cannot easily imitate its green products or services; and 8) the company's main competitors cannot easily replace its distinctive position on environmental management or green innovation. Content analysis by giving a value of 1 (one) for companies that disclose indicators of green competitive advantage and a value of 0 (zero) if otherwise. The formula of the index is as follow:

$$\text{GCA} = \frac{\text{Total Item yang diungkapkan ditiap elemen}}{\text{Jumlah keseluruhan item pada tiap elemen}} \text{x } 100\%$$

GCA = Green Competitive Advantage

Independent Variable

Value Relevance of Earning and Book Value

Is the ability of accounting information to capture various kinds of informations that affect stock prices. Measurement of value relevance of earnings and book value using Clean Surplus Theory Feltham and Ohlson, (1995). To estimate the value of the company based on the book value (Murwaningsari et al, 2015), as follows:

$$Pit = \alpha 0 + \alpha 1EPSit + \alpha 2EBVit + eit$$

Note :

P = stock price, EBV = Equity Book value, EPS = Earning per share, α_0 = constant, α_1: α_2 = slope/coefficient, i = company, t = year, e = residual error

Control Variable

Size

Size is an indication used in measuring the performance of the company. A large company size can indicate that a company has a high commitment to continue to make improvements in its performance, so the market will be willing to pay more for its shares because they believe that they will get a profitable return from the company (Rachmawati, 2021). Research by Krismiaji, (2015) states firm size has a positive effect on value relevance. Measurement using the natural logarithm (Ln) of the company's total assets. As follows : Size = Ln of Total Asset

Leverage

Leverage ratio is the ratio used by the company to measure how far the company uses its debt in the long term. In this study, the leverage ratio is calculated using the debt-to-equity ratio (Rachmawati, 2021). As follows : Leverage = Total Debt/Total Equity

C. Data Analysis Method

Testing Hypothesis 1, namely the effect of green competitive advantage on the value relevance of earning and book value. With the price model, the regression equation is as follows:

$$Pit = \gamma 0 + \gamma 1\ EPSit + \gamma 2\ EBVit + \gamma 3\ GCAit + \gamma 4\ EPSit{*}GCAit + \gamma 5\ EBVit{*}GCAit + \gamma 6\ SIZEit + \gamma 7\ LEVit + e\ it$$

or

$$Pit = \beta 0 + \beta 1 EPS + \beta 2 EBV + e$$

$$VRE = \beta 0 + \beta 1\ GCA + \beta 2\ SIZE + \beta 3\ LEV + e$$

$$VRB = \beta 0 + \beta 1\ GCA + \beta 2\ SIZE + \beta 3\ LEV + e$$

Note:

Pit = Stock price (closing price); EPSit = Earnings per share; EBVit = Equity book value; GCAit = Green competitive advantage; SIZEit = Size of the firm; LEVit = Leverage; VRE = Value relevance of earnings; VRB = Value relevance of book value.

Testing hypothesis 2, namely the effect of green competitive advantage on the value relevance of earning and book value by using the Cumulative abnormal return /CAR (Return model). This test is carried out because although the estimated slope coefficients of the price model are not so biased compared to that of the return model, the price model may be plagued by econometric problems Easton, (1993) who made a similar observation suggested the use of a return specification. Therefore, it is deemed necessary to include additional specifications in the form of a company's stock return model which is calculated from the difference between the actual stock return and the expected return called cumulative abnormal return (CAR) during the observation period. According to Murwaningsari et al, (2015) the equation can be shown as follows:

$$CARit = \gamma0+\gamma1\ EPSit+\gamma2\ EBVit+\gamma3\ GCAit + \gamma4\ EPSit*GCAit + \gamma5\ EBVit*GCAit + \gamma6\ SIZEit + \gamma7\ LEVit + e\ it$$

or

$$CARit = \beta0 + \beta1EPS + \beta2EBV + e$$

$$VRE = \beta0 + \beta1\ GCA + \beta2\ SIZE + \beta3\ LEV + e$$

$$VRB = \beta0 + \beta1\ GCA + \beta2\ SIZE + \beta3\ LEV + e$$

Note:

CARit = Cumulative abnormal return; EPSit = Earnings per share; EBVit = Equity book value; GCAit = Green competitive advantage; SIZEit = Size of the firm; LEVit = Leverage; VRE = Value relevance of earnings; VRB = Value relevance of book value.

Measurement of the Cumulative abnormal return (CAR) variable, which is a proxy for stock returns to show the magnitude of the market response to published earning. The methodology used is an event study, which is a study that studies the market reaction to an event whose information is published. The estimated abnormal return is calculated using a 12-month window from April in year t to March in year t+1, which is calculated on a monthly basis (Murwaningsari et al, 2015). These variables are calculated:

$$CAR_{it} = \sum_{i=1}^{n} AR_{it}$$

Note:

AR_{it} = Abnormal rate of return of individual companies i month t, calculated by the formula: $AR_{it} = R_{it} – RM_{t.}$ R_{it} = The actual individual return of company i in month t, calculated by the closing price of company i in month t: $(P_{it} – P_{it-1}) / P_{it-1}$. RM_t = Market rate of return in month t, calculated IHSG (Indonesia Composite Index) by the formula: $(IHSG_t – IHSG_{t-1}) / IHSG_{t-1}$. CAR_{it} = Cumulative Abnormal Return of company i in month t.

The measurement of cumulative abnormal return (CAR) is calculated using the market adjusted model, which uses the Indonesia Composite Index (IHSG). This model assumes that the best estimate for estimating the return of a security is the market index return at that time. By using this model, it is not necessary to use the estimation period because the estimated security return is the same as the market index return. The reason for using the market adjusted model is because the capital market in Indonesia is known to have relatively small value and volume of trade transactions. This is one of the characteristics of a developing capital market. Stock prices on the stock exchange tend to move only on certain days or events so that in using the market adjusted model there will be no difficulties because trading around the announcement day tends to be more (Murwaningsari et al, 2015).

IV. RESULT AND DISCUSSION

A. *Result*

Table 1. Distribution of Research Samples

No.	Description	Data Balance
1	Companies listed on the IDX for the period 2016-2020 (IDX-IC)	713
2	Companies that do not issue a Sustainability Report (SR)	(589)
3	Financial Companies (Banks, Insurance, Financing Services, Investment Services) due to different types of products	(14)
4	Number of Observations of Sample Companies that issue Annual Report and Sustainable Report respectively (22 x 5 years)	110

Table 2 Statistical Descriptive

Variable	N	Min	Max	Mean	Dev Std.
GCA	110	0.000	1.000	0.610	0.234
VRE	110	-0.035	0.005	-0.009	0.007
VRB	110	-0.001	0.001	-0.002	0.006
SIZE	110	2,275.04	1,511,804,63	1,511,804,63	322,138.31
LEV	110	0.017	85.480	5.103	8.760

Note : GCA : Green competitive advantage; SIZE : Size of the firm; LEV : Leverage; P : Stock price; VRE = Value relevance of earnings; VRB = Value relevance of book value.

Explanation:

The value relevance of earning variable has a minimum value of -0.035 (a negative number shows the result of the coefficient of the earnings value relevance regression), with a maximum value of 0.005, the average of 110 observations is -0.009 with a standard deviation of 0.007. The book value relevance variable has a minimum value of -0.001, with a maximum value of 0.001, the average of 110 observations is -0.002 with a standard deviation of 0.006. The results of the descriptive analysis show that standard deviation value is greater than mean, this means that data is heterogeneous, because the distribution of the data varies, which means that mean of leverage has a high level of deviation.

Research Hypothesis Testing

t-test of Price Model (P) Hypothesis 1

In this study, there are two dependent variables, namely the value relevance of earnings and book value. The test results are as follows:

Table 3. P = f (EPS, EVB)

Variable	Prediction	VRE Model			VRB Model		
		Beta	Sig	VIF	Beta	Sig	VIF
Constant		0.014	0.000		-0.001	0.005	

GCA	+	0.002	0.005*	1.103	-0.002	0.047**	1.021
SIZE		-0.004	0.000*	1.150	-0.004	0.004*	1.030
LEV		0.001	0.408	1.115	-0.001	0.497	1.051
R-squared			0.084			0.131	
Adjusted R-squared			0.045			0.098	
F-statistics			3.358			3.917	
Prob(F- statistic)			0.024			0.012	
Kolmogorov smirnov			0.334			0.202	
Glacier test			0.164 - 0.423			0.175- 0.468	
durbin watson			1.922			1.908	

Source: data processed SPSS 22.0 * = Significant 5%, ** = Significant 10%
Note : GCA : Green competitive advantage; SIZE : Size of the firm; LEV : Leverage; P : Stock price; VRE = Value relevance of earnings; VRB = Value relevance of book value.

Discussion

The research results of green competitive advantage on the value relevance of earning

Understanding profit is the information in the financial statements that are most often used by investors in company valuation. The achievement of large profits indicates that the company has good performance so that it can increase the value of the company in the eyes of investors. When earnings information can be used as a measure in capturing or summarizing all economic events that have an impact on stock prices or company's value, earnings are considered to have value relevance (Collins et al, 1997). The causes of the decline in the value relevance of earnings are negative earnings reporting and intangible investment (Lev & Zarowin, 1999). This is because intangible investments such as research and development costs, human resource development costs have the potential to provide future benefits, but are recorded as costs in accounting, resulting in a decrease in profit and book value.

The results of research by Qiu et al., (2016), companies that voluntarily disclose environmental information receive more attention from investors. The results show that green competitive advantage has a significant positive effect on the relevance of profit value. This means that the ability of earnings information can explain the value of the company's green competitive advantage on stock prices. In other words, green competitive advantage information is said to be relevant if the information can be used as a basis for making business decisions (Barth, et al 2001).

This study supports the research of Sri Handayani & Yosevin Karnawati, (2021), Wijayanto et al, (2019), Hapsari et al, (2020), Sang-Lyul Ryu & Jayoun Won, (2018) that green competitive advantage has a positive effect on the relevance of company's value. This means that a strong green competitive advantage can be profitable and sustainable against the competition and result in an increase in value relevance of earning. So that the company provides maximum service efforts to stakeholders and encourages all parties to improve product quality at low costs and sell at low prices which have an impact on increasing profits or profits which ultimately have an impact on value relevance of earning. This research is proven to support the signal theory which states that companies that have better information about the company will convey this information to investors so that stock prices increase or there is value relevance of earning and book value.

If it is associated with the percentage of disclosure of 8 indicators of green competitive advantage, there are 2 strong indicators of disclosure by the company as follows (1) The company has an advantage low-cost competitive proposals on environmental management or green innovation compared to its main competitors, (2) the quality of the green products or services offered by the company is better than those of its main competitors. From the disclosure above, the company focuses more on the strategy of low cost and product quality, environmentally friendly services have added value and a positive signal for investors because this strategy is difficult for all industries to implement. Therefore, competitive advantage has a significant positive effect on the relevance of the earnings value.

The results of research on competitive advantage on the value relevance of book value

The concept of business continuity or sustainable business states that in accounting, it is assumed that a business unit will continue or have an indefinite life if there is no definite sign in the future that the business will be liquidated (Suwardjono., 2008).

The standard value shows the company's net assets owned by shareholders by owning one share. Book value means the concept of business continuity that the company was built to continue to grow and not to be liquidated. Book value is one of the factors that determine stock prices. If the book value is high, it can be followed by a positive reaction to the stock price. This indicates that investors believe the company has good prospects in the future. On the other hand, equity can experience a decrease in the presence of a recall by the owner or a loss.

The results show that green competitive advantage has a significant negative effect on the value relevance of book value, not according to predictions. This means that when the book value increases, the stock price decreases. This discrepancy is probably because investors are more interested in short-term income/returns in the form of capital gains, dividends and bonus shares which can be converted into cash immediately rather than book value. Due to external conditions such as inflation, the decline in exchange rates, investors shift their thinking to short-term decision making, no longer thinking about the importance of competitive advantage that have sustainability benefits. This shows that investors fail to recognize the book value.

The results of this study are in line with Aisjah, S dan Djazuli, (2016) who say that book value has a significant negative effect on stock prices. This means that if the book value increases, then the stock price will decrease, and vice versa. Book value is a better proxy for predicting future earnings, especially if the company is experiencing financial difficulties, as indicated by the higher book value incremental coefficient when the company is experiencing financial difficulties, book value has no significant effect on stock prices (Mufidah, 2018). This study does not support signal theory because it cannot provide information about management's efforts to increase green competitive advantage which is reflected in book value on stock prices.

When associated with the percentage of disclosure of eight indicators of green competitive advantage, almost all of the indicators that are weak in disclosure, so that they have a negative effect on book value. From the description of the indicators above, the company has tried to implement the green competitive advantage indicator although it has not been maximized. The causes of the decline in the value relevance of book value. One possibility is that there is an intangible investment factor, such as the cost of research and development of green innovation, which according to investors, is assumed to be charged to current costs, which will cause it to continue in the long term, even continuous losses can occur until liquidation occurs. Although it is an asset that can provide benefits and increase profits and book value in the future. In addition, efforts to service and product diversification are still low to obtain innovations to achieve a green competitive advantage. Therefore, competitive advantage has a significant negative effect on a value relevance of book value.

T-test of Hypothesis 2 Return Model (Cumulative Abnormal Return, CAR)

In table 4, a comparison of the results of the price model (P) test with the return model (CAR) is presented.

Table 4. CAR = f (EPS, EVB)

Variable	VRE Model				VRB Model			
	CAR		P		CAR		P	
	Beta	Sig	Beta	Sig	Beta	Sig	Beta	Sig
Constant	0.014	0.000	0.014	0.000	0.000	0.110	-0.001	0.005
GCA(+)	0.002	0.007*	0.002	0.005*	-0.004	0.474	-0.002	0.074**
SIZE	-0.004	0.000*	-0.004	0.000*	0.001	0.093**	-0.004	0.004*
LEV	-0.001	0.238	0.001	0.408	-0.002	0.039*	-0.001	0.497
R-squared		0,251		0.084		0,291		0.131
Adjusted R-squared		0,227		0.045		0,260		0.098
F-statistics		10,591		3.358		9,424		3.917
Prob(F-statistic)		0,000		0.024		0,000		0.012
kolmogorov smirnov		0,534		0.334		0,283		0.202
Glacier test		0,253		0.164-0.423		0,204		0.175-0.468
Durbin Watson		2.031		1.922		2,018		1.908

* = Significant 5%, ** = Significant 10%

Note: GCA : Green competitive advantage; SIZE : Size of the firm; LEV : Leverage; VRE : Value relevance of earnings; VRB : Value relevance of book value; CAR : Cumulative abnormal return; P: Prices.

Discussion

Based on the results of the adjusted R-Squared test in table 4, it is known that the relevance of the profit value in the price model of the adj R2 value of 0.045 or 4.5% for the Cumulative Abnormal Return is greater than the price model; which has an understanding of the magnitude of the ability of the independent variable in explaining the dependent variable of 22.7% while the rest is explained by other independent variables that are not included in the model. While the relevance of the book value in the price model adj R2 is 0.098 or 9.8% for the Cumulative Abnormal Return adj R2 is 0.260 or 26%, thus adj R2 in the Cumulative Abnormal Return is greater than the price model, which understands the magnitude of the ability of the independent variable in explaining the dependent variable by 26% while the rest is explained by other independent variables that are not included in the model.

Based on the results of the F test, the results of the sig value of the value relevance of earning of the P price model of 3,358 are smaller than the Cumulative Abnormal Return, which is 10,591 while the relevance of the book value on the price model has a sig value of 3.917 which is smaller than the sig value of the Cumulative

Abnormal Return of 9.424. This means that it can be concluded that it is more significant with the Cumulative Abnormal Return.

Further discussion is to compare the price model with the return model, which can be viewed from (1) the results of the regression coefficients and (2) the results of the adjusted R-Squared as follows:

First, based on the value relevance coefficient of earnings using the cumulative abnormal return calculation and stock prices show consistent results, namely green competitive advantage has a significant positive effect on the value relevance of earnings. Likewise for the coefficient of value relevance of book value, which uses the calculation of cumulative abnormal return and stock prices. It also shows consistent results, which have a negative coefficient that is not significant for cumulative abnormal return and significant for stock prices. These results indicate that the concepts of value relevance of earnings and book value are not linear. When referring to the assumption of clean surplus accounting, Ohlson, (1995) show that book value can be expressed as a linear function of profit and book value. However, this study supports empirical evidence showing that the effect of earnings and book value is non-linear (Burgstahler and Dichev, 1997). The statement of Burgstahler and Dichev, (1997) which states that the book value obtained from the balance sheet only provides information about the net value of the company's resources. So that the book value has a low value effect if the company's activities experience profits and accounting profit has more important information as a determinant of book value. The significant negative result of green competitive advantage on the value relevance of book value is due to the pandemic conditions in 2020 where companies are still focused on addressing health and profit and in the previous year may not have actively disseminated environmental disclosures that can create a green competitive advantage and increase market prices. Therefore, investors do not understand the importance of the company's book value in the long term, as a sustainability effort. So that investors prefer to look at company profits or the value relevance of ernings that are not short rather than book value or the relevance of long-term book values.

The second is based on the adjusted R-squared of the value relevance of earning model for cumulative abnormal return, namely adj R2 (0.227) which is greater than the price with adj R2 (0.045). This shows that investors are more interested in cumulative abnormal return than stock prices. This is understandable because cumulative abnormal return is the excess of actual return over normal result. Cumulative abnormal returns will occur in inefficient market types such as in Indonesia, namely the process of setting prices on earnings information can be used by investors to obtain abnormal returns (capital gains and dividends). While the share price is the price that determines the wealth of shareholders. Stock prices on the exchange change all the time in a fast time. This is because there is supply and demand between sellers and buyers, changes in foreign exchange prices, interest rates, and the Indonesia Composite Index (IHSG). The results of the control variable study show that leverage has no effect on company's value, in line with Suryana dan Rahayu, (2018), Tahu & Susilo, (2017).

V. CONCLUSION

Conclusion

Green competitive advantage has a positive effect on the value relevance of earning and a negative effect on book value.

a. The test results show a significant positive effect of green competitive advantage on the value relevance of the earning, both the price model and the cumulative abnormal return model as a sensitivity test. The results of this study confirm that the value of green competitive advantage consisting of eight indicators including a low-cost strategy and product diversification, which is difficult to imitate by other companies has added value and positive signal for investors. Therefore, information is considered to be relevant when information on green competitive advantage is capable to make a contribution to profits and react positively to the market. The information is capable of fulfilling the needs of internal and external users in decision making.

b. The test results show that there is no significant negative effect for green competitive advantage on the value relevance of book value with the price model. However, the green competitive advantage for the return model has a significant negative effect on the value relevance of book value. These results indicate that investors fail to recognize the potential future book value. Consequently, the information is said to be irrelevant because the reflected green competitive advantage, book value is not responded to by the market.

Implication

For Theory Development

The results of this study contribute to the development of financial accounting and capital market science that the value relevance of earning and book value is not linear, it is proven that the results of research on the value relevance of earning and book value are inversely proportional. This is in accordance with the statement of Burgstahler and Dichev, (1997) that the book value obtained from the balance sheet only reflects information about the net value of the company's resources. Therefore, the book value has a low value effect if the company's activities experience profits which revelas accounting profit has more important information as a determinant of book value.

Limitations

1. The small value of adjusted R square intrepretes that the ability of the independent variable in this study is very limited to describe the dependent variable.
2. There is data on companies experiencing outliers, thereby reducing the research sample.

Suggestion

a. Efforts to overcome the subjectivity of data collection using content analysis require re-checking from other people.

b. Future research may be able to further emphasize on a more comprehensive discussion of the three main components of value relevance, namely feedback value, predictive value, and timeliness.

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