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## VALUE RELEVANCE OF SUSTAINABILITY REPORT: EVIDENCE FROM INDONESIA

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## VALUE RELEVANCE OF SUSTAINABILITY REPORT: EVIDENCE FROM INDONESIA

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### *Abstract*

*This present study aimed at providing empirical evidence of whether sustainability report has value relevance for investors in buying or selling shares and affects firm value. This study used two research models. The first research model was used to examine the effect of book value and earnings on firm value. The second research model was used to examine the effect of sustainability report on firm value and define the value relevance of sustainability report. The samples of this study were 306 companies listed on the Indonesia Stock Exchange in 2017-2020. As a result, this study found that sustainability report is very useful information in making investment decisions. Investors do not only use short-term profits as a reference but also take sustainability report and long-term profits as a reference in making investment decisions.*

**Keywords:** *sustainability report, firm value, value relevance*

### **Abstrak**

Penelitian ini bertujuan untuk membuktikan apakah sustainability reporting memiliki relevansi nilai bagi investor dalam mengambil keputusan untuk membeli atau melepas saham dan mempengaruhi nilai perusahaan. Penelitian ini menggunakan dua model penelitian. Model penelitian pertama digunakan untuk menguji pengaruh nilai buku dan pendapatan pada nilai perusahaan. Model penelitian kedua dimaksudkan untuk menguji pengaruh laporan keberlanjutan terhadap nilai perusahaan dan menentukan relevansi nilai laporan keberlanjutan. Sampel yang digunakan yaitu perusahaan yang terdaftar di Bursa Efek Indonesia periode 2017-2020 dengan jumlah sampel sebanyak 306. Hasil penelitian ini menemukan bahwa laporan keberlanjutan merupakan informasi yang sangat bermanfaat dan digunakan dalam mengambil keputusan investasi. Investor tidak hanya menggunakan laba jangka pendek sebagai acuan tetapi juga menggunakan laporan keberlanjutan dan keuntungan jangka panjang sebagai acuan dalam mengambil keputusan investasi.

**Keyword:** *laporan keberlanjutan, nilai perusahaan, nilai relevan*

## INTRODUCTION

Companies worldwide which have published sustainability report (SR) dominantly adopt the Global Reporting Initiative (GRI) which combines triple bottom lines reports and corporate social responsibility. Moreover, the value of the SR process is ensuring and considering organizations' impact on sustainability issues and allowing companies to be transparent about risks and opportunities they cope with. Stakeholders also take an important role in identifying these risks and opportunities for organizations, especially non-financial ones. This increased transparency leads to better decision-making and to help building and maintaining trust in business and government.

In Indonesia, the disclosure of Corporate Social Responsibility (CSR) activities has become an obligation for companies since the issuance of Financial Services Authority (*Otoritas Jasa Keuangan*) regulation No. 51/2017. This regulation discusses the implementation of sustainable finance for financial service institutions, issuers, and public companies. Thus, all issuers including financial institutions are required to issue SR. It is hoped that the issuance of this regulation from the financial services authority can create a balance between economic, social, and environmental aspects.

Based on signalling theory, information disclosed by companies can provide adequate information to investors to make investment decisions (Rokhayati et al. 2019; Brown-Liburd et al. 2018; Chen et al. 2021). One of the financial information disclosed by companies is earnings information. Moreover, investors generally use earnings information in assessing companies. It is considered to be able to evaluate companies' past and current performance. It can also predict a company's future performance (Gitahi et al. 2018). However, earnings information is not enough for investors to make investment decisions. Goettsche et al. (2016) and Khaghaany et al. (2019) explained that

stakeholders required more information to make investment decisions, considering the emergence of the global warming phenomenon that makes environmental and social issues important to think about. Non-financial information often used for value-relevance studies is the disclosure of SR (Halimah et al. 2020; Kaspereit and Lopatta 2016; Sutopo et al. 2018). Furthermore, a SR is a form of the report carried out by a company to disclose or inform the environmental, social, and good governance performance to stakeholders in an accountable manner. In response to the global warming phenomenon, companies try to disclose sustainability activities to stakeholders. Thus, disclosure of SR is used to provide a signal in the form of additional information to investors for assessing companies (Belesis et al. 2019; Gruszczyński et al. 2017; Jianu et al. 2014). In addition, GRI (an international and non-profit organization) promotes SR to companies around the world by creating standards or guidelines for the disclosure of SR. According to stakeholder theory, disclosure of sustainability is also a form of corporate responsibility to stakeholders (Loh et al. 2017; Oncioiu et al. 2020).

Several previous studies have examined the relevance of SR to firm value. In general, the value of a company can be seen from the value of its shares. However, the results of previous studies were still inconsistent. Halimah et al. (2020) and Sutopo et al. (2018) analysed the value relevance of SR. Her study showed that there was a positive relationship between SR and stock value. In line, research by Husnaint et al. (2020) and Nguyen (2020) also found results of CSR reports in Indonesia had a positive effect on firm value. In contrast, Romdhon et al. (2021) and Whetman (2018) found negative associations between the two researches in America. Different from those two previous studies, Bartlett (2012) and Kuzey and Uyar (2017) stated that investors do not consider sustainability disclosure as value-relevance in companies. The fundamental difference

between the contribution of this research and the research of Halimah et al. (2020), Sutopo et al (2018), and Husnaint et al. (2020) is the research of Halimah et al. compared the sustainability situation in Malaysia and Indonesia, while Sutopo et al's research focused more on the relevance of sustainability in Switzerland. Meanwhile, this study focused on examining the relevance of sustainability value in Indonesia. Thus, this study focused on looking at the impact on the firm value of companies on the Indonesia Stock Exchange. This study has similarities but different contexts to the research of Berthelot et al. (2012). In Berthelot et al. (2012), the publication of SR in Canada is voluntary and not widespread, basically limited to large companies. The research focused on material and energy sector companies since they provide higher pollution. Meanwhile, according to the issuance of Financial Services Authority Regulation No. 51/2017 concerning the application of sustainable finance for financial service institutions, issuers, and public companies, all issuers including financial institutions in Indonesia are required to publish SR and research is carried out on all corporate sectors on the Indonesia Stock Exchange (IDX).

Many people are starting to pay attention to the SR in Indonesia. Moreover, the Financial Services Authority which has released POJK 51, requires financial companies and companies that have joined the stock exchange to submit a SR. However, many company's managements are still reluctant and have not considered the importance of SR. According to Aksan and Gantjowati (2020) SR can increase company value. It indicates that investors and young people as job seekers are starting to pay attention to companies' SR as business responsibility. Investors see SR containing teamwork values (working together synergistically to achieve common goals), integrity (showing consistency between thoughts, speech, and action by always upholding honesty, transparency, and independence following companies'

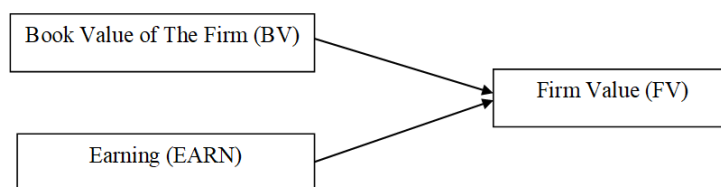
values and applicable norms), professionalism (showing attitude, appearance, and competence with full responsibility to provide the best results), and excellent service (providing the best service for stakeholders).

The purpose of this study was to test the information in SR published by companies that have adopted the 2016 GRI Standards and had value-relevance for investors in making investment decisions and assessing a company. Two models are used to see the relevance of SR to firm value. Moreover, SR has relevance value if the coefficient of determination of the second model has increased compared to the first model. This research is expected to show results that can provide insight for companies to disclose SR and provide input to Financial Services Authority to impose obligations on public companies concerning disclosures related to SR.

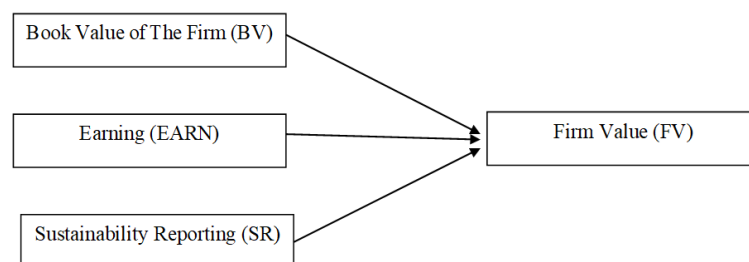
## **LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT**

Stakeholder theory describes which parties the company is responsible for (Schaltegger et al. 2019). Companies must maintain relationships with their stakeholders, especially stakeholders who have power over the availability of resources used for company operational activities, such as labour, markets for company products, and others. One of the companies' strategies to maintain relationships with stakeholders is to disclose SR that informs about economic, social, and environmental performance.

Besides, the signalling theory was first put forward by Spence (Connelly et al. 2011) explains that the sender (the owner of information) gives a signal in the form of information that reflects the condition of a company that is beneficial to the recipient (investor). Signalling theory explains why companies are urged to provide financial statement information for external parties. If the announcement of the information is a good signal for investors, there will be a



**Figure 1**  
**First Model**



**Figure 2**  
**Second Model**

change in the trading volume of the stock. The relationship between signalling theory and firm value is that a good firm value can be a positive signal and vice versa, a bad firm value can be a negative signal.

This study used two research models to figure out the relevance of a SR's value to investor reactions as reflected by firm value. The first research model analysed the effect of book value and companies' earnings on companies' value (stock price time, number of shares outstanding) which is depicted in Figure 1. The second research model is intended to examine the effect of SR on firm value and define the value relevance of SR. The variable SR is added to the research model which can be seen in Figure 2.

Additionally, company value is a certain condition achieved by a company as an illustration of public trust after going through the activation process for several years. Value is very important because a high firm value will be followed by high shareholder prosperity firm (Dang et al. 2020). Moreover, companies must be able to convince investors to invest in their companies. One way to attract investors is by publishing SR. Investors can see first-hand form of corporate responsibility in

three important aspects, namely economic, social, and environmental performance. Disclosure of economic performance reflects how the company generates profits during a period. This disclosure is a form of corporate responsibility to stakeholders. Along with the transparency of economic performance, stakeholders can obtain information about companies' economic performance and provide their perceptions. Stakeholder perceptions of companies can result in companies' own investment decisions. Investors will prefer choosing companies that are profitable on the economic side since they intend to earn profits. Investment decisions can be in the form of a request for the purchase of company shares. High demand for shares will result in the number of shares in the market more than in the previous period. The companies also expect an increase in stock prices due to significant demand from investors. The environmental aspect in SR explains the form of companies' responsibility in overcoming environmental problems in the surrounding area.

Furthermore, stakeholder theory describes who companies are responsible for (Schaltegger et al. 2019); one of which is stakeholders related to the environment

**Table 1**  
**Determination of the sample**

Criteria	Number of companies
Companies that have been listed on the IDX from 2017-2020	545
Companies with incomplete annual reports in the period 2017-2020	(95)
Companies that do not use GRI standards in preparing sustainability reporting	(85)
Companies do not have complete and unavailable information	(59)
Companies selected as research samples	306
Number of observations with unbalanced data panel	1224

(community, environmental activists, consumers, etc.). Disclosed environmental performance companies can improve their reputation in the communities. A good reputation from communities will create a competitive advantage for the companies. The public will not hesitate to become a shareholder in a publicly-traded company. Therefore, the demand for companies' shares will increase as well as the stock prices. Social performance in SR has four performance indicators, namely labour, practices, human rights, society, and product responsibility. Disclosure of social performance describes the companies' operations under applicable regulations and forms of corporate responsibility to stakeholders. Along with the increasing fulfilment of the index in disclosure of social performance, companies have their value in the social field. Moreover, the main focus of the social performance is companies' treatment of human resources. Companies can use social performance information as a competitive advantage. A good social performance company will respond positively to investors. From a positive investor response, there will be an increase in stock prices. According to the explanation above, the following hypothesis is formulated:

**H<sub>1</sub>: Sustainability report has value relevance in increasing company value.**

## RESEARCH METHOD

This study collects information from entities listed on IDX from 2017-2020. SR became mandatory since the Financial Services Authority issued regulation, namely POJK Number 51 of 2017 for financial service companies, issuers, and companies so this research began to conduct observations from 2017-2020. Information related to SR will be taken from the SR in the annual report. In contrast, information related to the value of companies (from market value) will be obtained through the overview of performance in the annual report and Factbook published by the IDX. In addition, the sample selection used a purposive sampling technique by taking several criteria including (i) companies or entities listed on the IDX from 2017-2020, and (ii) companies disclosing SR using the GRI reference. The GRI standards represent best practices globally when it comes to publicly report economic, environmental, and social impacts. SR based on the GRI standards provide information on an organizations' positive or negative contributions to sustainable development, and (iii) information related to these criteria to provide information obtained by research objectives.

The total observations of companies from 2017-2020 that have SR following the GRI Standards are 1224 observations from 306 companies. The process related to the selection of the observed sample can be seen in Table 1.

**Table 2**  
**GRI Standards**

Universal standards	Topic-specific standards		
	Economic	Environmental	Social
Organizational profile, strategy, ethics and integrity, governance, stakeholder engagement, and reporting practice	Economic performance, market presence, indirect economic impacts, procurement practices, anti-corruption, and anti-competitive behaviour	Energy, water, emissions, biodiversity, materials, environmental compliance, etc.	Employment, labour, occupational health, and safety, non-discrimination, etc.

To test the value relevance of SR models, Ohlson's (1995) model is used in this study, as also used by Jadoon et al. (2021). Ohlson (1995) model uses two equations or research models. The first research model analyses the effect of book value and companies' earnings on company value (stock price times number of outstanding shares) which is depicted in Figure 1. The firm value variable uses a market value proxy (MVi, t+4) taken four months after the financial year ends because companies usually publish annual reports along with SR three or four months after the end of the financial year. The share price used is the average share price for the month in question. The variable book value (BV) is proxied by the book value of the company's common stock. The earning value variable (EARN) uses the amount of income before the extraordinary item. Thus, the regression equation for the first model is as follows:

$$MVi,t+4 = \alpha_0 + 1BV_i,t + 2EARN_{i,t} + 3EARN_{i,t} \times NEG_{i,t} + \epsilon_{i,t} \quad (1)$$

Description:

MVi, t + 4	=	market value of the fourth month after the financial year end of the company
BVi, t	=	the book value of common stock
EARN <sub>i, t</sub>	=	earnings before extraordinary item
Negi, t	=	dummy variable (1 if earnings negative and 0 if otherwise)
ε <sub>i, t</sub>	=	term error

Then, the second research model is intended to examine the effect of SR on firm value and define the value relevance of

sustainability reports. The variable SR are added to the research model which can be seen in Figure 2. Thus, the equation of model (2) is:

$$MVi,t+4 = \alpha_0 + 1BV_i,t + 2EARN_{i,t} + 3EARN_{i,t} \times NEG_{i,t} + SR_{i,t} + \epsilon_{i,t} \quad (2)$$

Description:

MVi,t+4	=	market value in the fourth month after the company's financial year ends
BVi,t	=	book value of ordinary shares
EARN <sub>i,t</sub>	=	earnings before extraordinary items
NEG <sub>i,t</sub>	=	dummy variable (1 if company earnings are negative and 0 otherwise)
SR <sub>i,t</sub>	=	number of sustainability disclosure items i
ε <sub>i,t</sub>	=	term error

Additional variable SR is the score of SR disclosure which refers to indicators set by GRI Standards 2016. The SR disclosure score is carried out using content analysis. GRI Standards 2016 developed by GRI (Global Reporting Initiative) has two types of standards, namely Universal Standards and Specific-Topic Standards. Universal Standards apply to all companies that use the GRI Standards as a reference or guidelines for making SR. Universal Standards contain the foundation (containing the basic principles of reporting and how to use the standard), general disclosures (containing information related to the company and its SR practices), and management approach (containing the management approach to convey material topics).

**Table 3**  
**Operational Definitions**

Variables	Definition
MV	Market value (number of shares outstanding x share price) in the 4th month after the end of the financial year
BV	Book value of the company (total value of ordinary shares)
EARN	<i>Net income</i> before <i>extraordinary items</i>
NEG	Dummy variable equal to 1 if EARN is negative and equal to 0 otherwise
SR	the score of the level of disclosure of <i>Sustainability Reporting</i> refers to the indicator from GRI <i>Standards</i>

Specific-Topic Standards consists of economic, environmental, and social topics. Companies can choose the relevant topics to be disclosed in the SR according to the material topics proposed in the management approach (see Table 2). For disclosure, companies can choose to disclose only the Core or Comprehensive options. To assess, the SR score is based on the content analysis, of the company's sustainability reports for the period 2016 – 2020 where the application of GRI G4 Standards is converted to GRI Standards 2016 by using the conversion guidelines issued by GRI. Additionally, the SR score will be obtained through content analysis by counting the number of items disclosed in the subtopics of general disclosure, economic, environmental, and social. Model equations (1) and (2) apply multiple regression analysis. From the model equations in (1) and (2), it is expected that the variables  $BV_{i,t}$ , and  $EARN_{i,t}$  will have a positive correlation with firm value ( $MV_{i,t+4}$ ). Meanwhile,  $NEG_{i,t}$  is expected to lead to an opposite or negative relationship with firm value ( $MV_{i,t+4}$ ). Then, the SR variable should also have a positive effect on the firm value ( $MV_{i,t+4}$ ). Adjusted  $R^2$  is expected to increase from the model (1) to model (2) because it means that the investors consider SR information related to the value-relevance and use in decision-making (Ohlson, 1995). Table 3 presents a recapitulation of operational variables in this study.

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## RESULT AND ANALYSIS

Table 4 below presents some data characteristics. These characteristics include the mean (mean), minimum, and maximum of each tested variable in this research.

Table 4 shows the dependent variable, namely firm value (MV) whose average (mean) reaches 66.327.169 million rupiahs. The highest company value in the sample is 597,854,907 million rupiahs, owned by PT Telkom in 2019 and the lowest value is 430,371 million rupiahs, owned by PT Bank Bumi Arta in 2018. As illustrated in the table, the difference between the highest and lowest values is quite far because the sample in the study comes from different industries. From a sample of 306 companies, 31% of them are from the banking/finance industry



**Table 4**  
**Descriptive Statistics**

Variables	Average	Minimum	Maximum
MV*	66327.169	0.430371	597854.907
BV*	28036.254	644.90281	169712.817
EARN*	3257.689	-5381.084	38999.321
NEG	0.191168	0	1
SR	3.191286	1.8545	3.8142

\*(in billion rupiahs)

26% of them are from the mining and natural gas industry 13% of them are from the manufacturing industry 11% of them are from the construction industry, 8% of them are from telecommunications companies, 5% of them are from plantation industry, and lastly, 5% of them are from transportation and heavy equipment industries. The scale of the company's value is potentially influenced by several factors, one of which is whether it comes from SR which serves as a question in this study. The first independent variable in the study is book value (BV), which reaches 644,902.8 million rupiahs to 169,712,817 million rupiahs and the average value is shown in the table reaches 28,036,254 million rupiahs. Based on the sample from 2017-2020, PT Bank BRI in 2019 had the highest book value and PT Bank Bumi Arta in 2017 had the lowest book value. Book value is influenced by the amount of paid-up capital by shareholders. Based on the sample during 2017-2020, the average company in the sample is large because the average both BV and MV are above the median value (19,945,534 million rupiahs and 13,377,067 million rupiahs).

The second independent variable is the value of earnings (EARN). The average earning value (EARN) which is the value of net income before extraordinary items is 3,257,689 million rupiahs. In the research sample, the smallest EARN value of -5,381,084 million rupiahs was owned by PT Bank Permata in 2018, it shows that PT Bank Permata failed to demonstrate good performance because it suffered losses (negative earnings). PT Bank BRI recorded the highest-earning value in 2019 reaching

38,999,321 million rupiahs. On a more specific note, it indicates that BANK BRI was able to show good performance. Viewed from the NEG variable, about 19.11% of the total research sample shows a negative net income (NEG) value. However, in the majority, the companies in the sample have good profitability as indicated by positive earnings value (EARN).

Furthermore, for the SR variable, the total SR score has the lowest value of 1.8545 and the highest of 3.8142. Back in 2018, PT Indocement Tunggul Prakarsa had the highest total SR score. This is following the achievement of PT Indocement Tunggul Prakarsa to receive The Most Impressive CDM Reporting from the National Center for Sustainability Reports. Out of the three GRI Standard indicator sectors (economic, social, and environmental), the highest score was obtained from the environmental sector. The lowest SR score was owned by PT PP (Rumah Pembangunan) in 2017. Based on its annual report, PT PP only adopted the GRI Standards in making its SR in 2015. PT PP has not disclosed the environmental sector in its report. The value of the SR variable is considered full if the company can disclose all items in the GRI Standards of 4.87 (1.87 score for general disclosure (total disclosure of general disclosure is 56 items divided by the number of items that have a Core label of 33 items), one score for full disclosure in the economic sector, one score for full disclosure in the social sector, and one score for full disclosure in the environmental sector. From the results of descriptive statistics on the SR variable, the average score of SR disclosure in the sample companies is considerably high with a score

**Table 5**  
**Results of Analysis**

Variable	(Model 1)	(Model 2)
BV	0.860***	0.820***
EARN	2.61e-09***	2.71e-09***
NEG*EARN	7.61e-08	9,23e-089
SR		0.077*
Constant	0.979	1.018
R <sup>2</sup>	0.794	0.798
adjustedR <sup>2</sup>	0.789	0.807
F-Value	152.62 ***	117.19 ***
IncrementalR <sup>2</sup>		0.004
Incremental adjustedR <sup>2</sup>		0.018
No. of observation	1224	1224

Notes: 1% significance level\*\*\*, 5% significance level\*\* 10% significance level\*

of 3.19. However, around 71% of the companies from the observation data made full disclosures on the Core General Disclosure topic (33 items). As for the economic topics containing 10 disclosure items, PT Bukit Asam in 2018 had the highest number of disclosures for economic topics by disclosing 9 items. While for the environmental topics containing 30 disclosure items, PT Semen Holcim 2018 successfully reached the highest number of disclosures by disclosing 26 items. Lastly, regarding social topics, out of 40 disclosure items, PT Semen Holcim 2018 successfully disclosed 30 items which shows the highest number of disclosures.

This study used 306 companies as samples that have implemented the GRI Standard in their SR. According to the study, it is recorded that the banking industry holds the highest percentage of the application of the GRI Standard as a reference to compose their SR, namely 43%. This achievement is because banking will be the first industry required to fully disclose SR in 2020. The GRI Standards is one of the adoptable standards to create and compile the SR required by the Financial Services Authority.

The results of the multiple linear regression test described in the model equation (1) are presented in Table 5 Column 1. According to Ohlson's (1995)

model, the model equation (1) does not include the SR variable because the contribution of the influence of SR to the value of the company (MV) is in the equation of the second model. According to the regression prediction in model 1 (Table 5 column 1), it shows that book value (BV) and earnings (EARN) have a positive and significant impact on firm value (MV). These results mean that with the higher book value and earnings of a company, the value of the company as measured by its market value will also increase. The interaction variable between negative earnings and dummy earnings (NEG\*EARN) has shown no significant effect.

Based on the regression results, with Adjusted R<sup>2</sup> model 1 with a value of 0.789, it reflects that the three variables BV, EARN, and NEG\*EARN can explain 78.9% of the independent variable firm value (MV). The high results of adjusted R<sup>2</sup> is also similar to the previous studies examining the value relevance to the topic of sustainability/CSR reporting using a model of Ohlson (1995) are Almujaed and Alfraih (2020) amounted to 67.2%, Kimouche and Rouabhi (2016) by 87.4%, Der *et al.* (2016) by 96%, and Halimah *et al.* (2020) by 75.%. The value of the F test model (1) also indicates that the variables BV, EARN, and NEG\*EARN can jointly

affect the firm value with a significant level at the one percent level. The results of the regression model (1) can also prove that the financial information disclosed by the company such as the value of earnings (EARN) and book value (BV) has value relevance that can move stock prices and increase the market value of the company. These results are in line with the research by Ahmadi and Bouri 2018, Alade *et al.* 2017, and Sixpence and Adeyeye 2019.

To see the effect of SR, model (2) includes the SR variable in the equation. The results of the regression model (2) (Table 5 column 2) reflect that the SR variable has a positive and significant impact on firm value (MV) with a significance level of 10%. In addition, model (2) has an Adjusted  $R^2$  of 0.807, this is an increase of 0.018 from the Adjusted  $R^2$  of the model (1). Even though the value of the increase in Adjusted  $R^2$  is certainly small, the F value of model (2) remains significant ( $p < 0.001$ ). The increase in Adjusted  $R^2$  shows that the information disclosed by the company through SR has value relevance that can help move stock prices and increase the company's market value. If the adjusted  $R^2$  is not increased from model (1) to (2), it is stated that the information in the SR did not provide the value relevance that may affect the value of the company. Thus, the conclusion from the regression results presented in Table 5 column 2, the question in this study; whether SR affect firm value and have value relevance for investors has been answered. Model (2) also shows that book value (BV) and earnings (EARN) have a positive and significant impact on firm value (MV). These results are following the results in the model (1).

Referring to the results of this research, it is concluded that information related to book value and company earnings has a positive influence on company value. Companies whose book value and earnings are high based on the results of this study, also have a high market value.

Additionally, this is in line with the research of Alade *et al.* (2017), and Sixpence and Adeyeye (2019). Information related to book value and earnings, including financial information that the investors use to make investment decisions and ultimately can move the company's stock price (Ahmadi and Bouri 2018, Mulenga and Bhatia 2020).

The research results have also found that SR shows a significant positive impact on the market value of the company. In other words, the higher level of disclosure of SR means the greater the market value of the company. In addition, information in SR is considered to have value-relevance by investors to make investment decisions so that it supports the company's stock price. Non-financial information such as sustainability reporting widely disclosed by many companies is starting to be considered by investors in making decisions. Jianu *et al.* (2014) and Belesis *et al.* (2019) explain that investors demand more information from a company to make investment decisions. This is related to the phenomenon of global warming and biodiversity erosion which are popular lately. Therefore, causing environmental and social issues are also important to consider. This finding is in line with the arguments of Kuzey and Uyar (2017); Swarnapali and Le (2018) which stated that investors are no longer focusing on getting short-term profits (only looking at profits), but investors consider getting long-term profits by accommodating the wishes of the stakeholders. By only looking at profit, it does not guarantee the sustainability of the company in the long term. As a result, investors seek other information such as non-financial information, one of which is SR to be considered in assessing the company (Husnaint *et al.* 2020; Whetman 2018).

This research provides results that are in line with previous studies (Halimah *et al.* 2020; Kaspereit and Lopatta 2016; Oncioiu *et al.* 2020) which have found that SR

contains relevant information regarding the decision making. The results also indicate that the information contained in the SR is useful to make investment decisions for investors. With SR, investors can anticipate that a company will have good performance in future periods (Belesis et al. 2019; Gruszczyński et al. 2017; Jianu et al. 2014). There are two theories used in this study to explain the influence between SR and firm value, namely signalling theory (Halimah et al. 2020) and stakeholder theory (Schaltegger et al. 2019).

According to signalling theory, companies that disclose SR voluntarily intend to signal to the investors that the company is implementing initiatives related to the economy, environment, and social aspects that aim to obtain long-term benefits (Husnaint et al. 2020; Kuzey and Uyar 2017; Swarnapali and Le 2018). The company voluntarily wishes to convey the impact of its operations on the environmental, social, and economic sectors. This signal is considered to make capital market participants or investors react positively to the company. As a result, it encourages the investors to invest in the company (Mulenga and Bhatia 2020; Nguyen 2020). If many investors are interested, for example in buying shares in a company, this can stimulate the company's stock price up. If an increase occurs in the stock price, then the value of the company will also increase. Another reason investors react positively is that investors can easily assess the company's risk profile on the information that has been submitted and expect good performance in the future. Other researchers who also use signalling theory in examining the value relevance of SR are Brozović et al. (2020), Garg (2015), and Sahboun et al. (2017).

In addition to the application of signalling theory to explain the effect of SR on firm value, there is also stakeholder theory. Schaltegger et al. (2019) argue that stakeholders are groups or individuals who have the capacity and authority to influence

or be affected by the achievement of company goals. Stakeholders have the power to encourage companies to operate according to their expectations (Oncioiu et al. 2020; Swarnapali and Le 2018). Thus, the company will try to achieve or get results that benefit all stakeholders regularly (Dang et al. 2020; Husnaint et al. 2020).

Additionally, SR is a form of accountability of the company's operations to stakeholders so that stakeholders know what has been done by the company. Further, Kuzey and Uyar (2017) argue that the existence of a SR can serve as a means of corporate communication to stakeholders to improve the company's positive image, to build competitive advantage, and to establish good relations with the community. Thus, there is an expectation that the company's performance will increase so that it can affect the stock price which will ultimately increase the value of the company. Moreover, studies conducted by Kaspereit and Lopatta (2016); Sutopo et al. (2018) explain that by publishing SR, companies will get several benefits, such as easier and faster access to both internal and external funding, high and good reputation, good relationship with stakeholders, increasing competitive advantage (innovation and efficiency), as well as good financial performance. Other researchers who also use stakeholder theory in researching the value-relevance of sustainability reports are Romdhon et al. (2021); Schaltegger et al. (2019).

Overall, the results of this study add to the literature related to the value relevance of SR. The results of the study confirm the signalling theory and stakeholders which are the reference in the discussion of this research. Based on this research, SR is beneficial to the company because they can stimulate the increased prices of the stock company, wherein in the end, it also serves to increase the value of the company. The sustainability agenda is

an agenda proclaimed by the United Nations as stated in the Sustainable Development Goal (SDG). The agenda requires all countries including Indonesia to prepare work plans supporting the fulfilment of the SDGs. The responsibility for fulfilling the SDGs is not only the responsibility of the government but also the shared responsibility of all levels, including companies. Through POJK 51/2017, the government will require all issuers (banks to apply first in 2020) to report their sustainability-based businesses. The company is also expected to compile SR referring to internationally accepted standards, one of which is the GRI Standards. If all public companies in Indonesia are committed to compiling SR, Indonesia will be able to contribute to the full fulfilment of the SDGs and the impact will not only positively affect the companies but also stakeholders.

## CONCLUSION

The results of this study prove that the financial information disclosed by the company such as the value of earnings and book value has value relevance that can move stock prices and increase the market value of the company. Book value and company earnings have a positive influence on company value. Companies that have a high book value and earnings based on the results of this study also have a high market value. The results of the research also found that sustainability reporting has a significant positive impact on the market value of the company, which means that the higher the level of disclosure of sustainability reporting, the greater the market value of the company because sustainability reporting contains relevant information related to decision making.

Sustainability reports made by companies are considered capable of becoming material or aspects of consideration related to investment and helping to show the long-term prospects of

a company. In addition, these results are also in line with the phenomenon that investors are currently not only focusing on short-term profits or company profits but also looking at the sustainability and long-term profits of a company to satisfy all stakeholders. This is also because the current profits cannot guarantee the sustainability of the company in the future. Furthermore, the research can bring results that also serve to strengthen signaling theory and stakeholder theory in explaining the effect of sustainability reporting on firm value.

Company voluntary information presented in SR is considered to be a good signal. This information can be received by investors in assessing a company and is considered to be a company's strong commitment to stakeholders. The existence of a SR can also be interpreted as the company's efforts to provide a positive image so that a good relationship can be established with the whole community. The novelty of this research is the use of the latest GRI Standards indicator in 2016 as a proxy for sustainability reports.

With that being said, several limitations have been encountered in this study. First of all, the content analysis carried out in the process of calculating the SR disclosure score is inseparable from its subjective nature. Second, the score obtained for SR disclosure is only based on the number of items disclosed, not based on the quality or depth of disclosure. Third, the research sample is not separated by industry which may affect the amount/topic of SR disclosures. Thus, further research should measure the depth or quality of SR disclosure so that it is not only based on the quantity or number of items.

## REFERENCE

- Ahmadi, A., and Bouri, A. 2018. The accounting value relevance of earnings and book value: Tunisian banks and financial institutions.

- International Journal of Law and Management*, 60 (2).
- Aksan, I., and Gantjowati, E. 2020. Disclosure on Sustainability Reports, Foreign Board, Foreign Ownership, Indonesia Sustainability Reporting Awards, and Firm Value. *Journal of Accounting and Strategic Finance*, 3 (1).
- Alade, M. E., Olweny, T., Oluoch, O., and Kenyatta, J. 2017. Impact Of IFRS Adoption On Value Relevance Of Earnings And Book Value Of Nigerian Listed Non-Financial Firms. *European Journal of Business, Economics, and Accountancy*, 5 (4).
- Almujamed, H. I., and Alfraih, M. M. 2020. Corporate governance and value relevance of accounting information: Evidence from Kuwait. *International Journal of Ethics and Systems*, 36 (2).
- Bartlett, B. D. 2012. The Effect of Corporate Sustainability Reporting on Firm Valuation. *CMC Senior Theses*.
- Belesis, N., Sorros, J., and Karagiorgos, A. 2019. Financial Crisis and Value Relevance of Financial Statements. *SSRN Electronic Journal*.
- Berthelot, S., Coulmont, M., and Serret, V. 2012. Do Investors Value Sustainability Reports? A Canadian Study. *Corporate Social Responsibility and Environmental Management* 19 (6).
- Brown-Liburd, H., Cohen, J., and Zamora, V. L. 2018. CSR Disclosure Items Used as Fairness Heuristics in the Investment Decision. *Journal of Business Ethics* 152 (1).
- Brozović, D., D'Auria, A., and Tregua, M. 2020. Value creation and sustainability: Lessons from leading sustainability firms. *Sustainability (Switzerland)* 12 (11).
- Chen, Y., Jermias, J., and Nazari, J. A. 2021. The effects of reporting frameworks and a company's financial position on managers' willingness to invest in corporate social responsibility projects. *Accounting and Finance*, 61 (2).
- Connelly, B. L., Certo, S. T., Ireland, R. D., and Reutzel, C. R. 2011. Signaling theory: A review and assessment. In *Journal of Management* (Vol. 37, Issue 1).
- Dang, H. N., Nguyen, T. T. C., and Tran, D. M. 2020. The impact of earnings quality on firm value: The case of Vietnam. *Journal of Asian Finance, Economics, and Business*, 7(3).
- Der, B. A., Polak, P., and Masri, M. 2016. Investigation on the value relevance of accounting information: Evidence from incorporated companies in the Singapore capital market. *Investment Management and Financial Innovations* 13 (3).
- Garg, P. 2015. Impact of Sustainability Reporting on Firm Performance of Companies in India. *International Journal of Marketing and Business Communication*, 4(3).
- Gitahi, Nasieku, and Memba. 2018. Corporate Social Responsibility Disclosure and the Value Relevance of Annual Reports for Listed Banks in Kenya. *European Scientific Journal, ESJ* 14(4).
- Goettsche, M., Steindl, T., and Gietl, S. 2016. Do Customers Affect the Value Relevance of Sustainability Reporting? Empirical Evidence on Stakeholder Interdependence. *Business Strategy and the Environment* 25 (3).
- Gruszczynski, M., Bilicz, R., Kubik-Kwiatkowska, M., and Pernach, A. 2017. Value Relevance Of Companies' Financial Statements



- In Poland. *Metody Ilościowe w Badaniach Ekonomicznych* 17(4).
- Halimah, N. P., Irsyanti, A., and Aini, L. R. 2020. The Value Relevance of Sustainability Reporting: Comparison between Malaysia and Indonesia Stock Market. *The Indonesian Journal of Accounting Research* 23 (03).
- Husnaint, W., Husnaint, W., and Basuki, B. 2020. ASEAN Corporate Governance Scorecard: Sustainability Reporting and Firm Value. *Journal of Asian Finance, Economics, and Business*, 7 (11).
- Jadoon, I. A., Ali, A., Ayub, U., Tahir, M., and Mumtaz, R. 2021. The impact of sustainability reporting quality on the value relevance of corporate sustainability performance. *Sustainable Development* 29 (1).
- Jianu, I., Jianu, I., Ileanu, B. V., Nedelcu, M. V., and Herteliu, C. 2014. The value relevance of financial reporting in Romania. *Economic Computation and Economic Cybernetics Studies and Research*, 48 (4).
- Kaspereit, T., and Lopatta, K. 2016. The value relevance of SAM's corporate sustainability ranking and GRI sustainability reporting in the European stock markets. *Business Ethics* 25 (1).
- Khaghaany, M., Kbelah, S., and Almagtome, A. 2019. Value relevance of sustainability reporting under an accounting information system: Evidence from the tourism industry. *African Journal of Hospitality, Tourism and Leisure*, 8 (special edition).
- Kimouche, B., and Rouabhi, A. 2016. The impact of intangibles on the value relevance of accounting information: Evidence from French companies. *Intangible Capital* 12 (2).
- Kuzey, C., and Uyar, A. 2017. Determinants of sustainability reporting and its impact on firm value: Evidence from the emerging market of Turkey. *Journal of Cleaner Production* 143.
- Loh, L., Thomas, T., and Wang, Y. 2017. Sustainability reporting and firm value: Evidence from Singapore-listed companies. *Sustainability (Switzerland)*, 9(11).
- Mulenga, M., and Bhatia, M. 2020. Relevance of earnings and book value: Evidence from listed pharmaceutical companies. *Corporate Ownership and Control* 18(1).
- Nguyen, T. T. D. 2020. An empirical study on the impact of sustainability reporting on firm value. *Journal of Competitiveness* 12(3).
- Ohlson, J. A. 1995. Earnings, Book Values, and Dividends in Equity Valuation. *Contemporary Accounting Research* 11(2).
- Oncioiu, I., Petrescu, A. G., Bîlcan, F. R., Petrescu, M., Popescu, D. M., and Anghel, E. 2020. Corporate sustainability reporting and financial performance. *Sustainability (Switzerland)* 12 (10).
- Rokhayati, H., Nahartyo, E., and Haryono. 2019. Effect of financial information and corporate social responsibility disclosure on investment decision: Evidence from an experimental study. *Asian Journal of Business and Accounting* 12 (1).
- Romdhon, M., Fadilah, R. A., Nurlaela, L., and Ningsih, W. 2021. Financial performance, sustainability reporting, and its impact on firm value: Evidence from Asia sustainability reporting rating. In *Synergizing Management, Technology and Innovation in*

- Generating Sustainable and Competitive Business Growth.*
- Sahboun, A. H. A., Ghozali, I., Fuad, Faisal, and Harto, P. 2017. Firms' characteristics, sustainability reporting, and value of the firm (empirical analysis of public companies listed in Indonesia). *International Journal of Mechanical and Production Engineering Research and Development*, 7 (5).
- Schaltegger, S., Hörisch, J., and Freeman, R. E. 2019. Business cases for sustainability: A stakeholder theory perspective. *Organization and Environment*, 32 (3).
- Sixpence, A., and Adeyeye, O. P. 2019. Value relevance of book values and earnings of listed non-financial firms in South Africa: A dynamic panel analysis. *International Journal of Monetary Economics and Finance* 12 (4).
- Sutopo, B., Kot, S., Adiati, A. K., and Ardila, L. N. 2018. Sustainability Reporting and value relevance of financial statements. *Sustainability (Switzerland)* 10(3).
- Swarnapali, R. M. N. C., and Le, L. 2018. Corporate sustainability reporting and firm value: Evidence from a developing country. *International Journal of Organizational Innovation* 10 (4).
- Whetman, L. L. 2018. The Impact of Sustainability Reporting on Firm Profitability The Impact of Sustainability Reporting on Firm Profitability. *Undergraduate Economic Review* 14(1).