Article

Sustainability Reporting and Value Relevance of Financial Statements

Bambang Sutopo [1], Sebastian Kot [2,3,*] , Arum Kusumaningdyah Adiati [1] and Lina Nur Ardila [1]

[1] Faculty of Economics and Business, Universitas Sebelas Maret, Jl. Ir. Sutami 36A, Surakarta 57126, Indonesia; bbsutopo@yahoo.com (B.S.); adiati_rk@yahoo.com (A.K.A.); linna.ardila@gmail.com (L.N.A.)

[2] Faculty of Applied Sciences, The University of Dabrowa Górnicza, ul. Cieplaka 1C, 41-300 Dąbrowa Górnicza, Poland

[3] Faculty of Economic Sciences and IT, North-West University, Vaal Triangle Campus, P.O. Box 1174, Vanderbijlpark 1900, South Africa

* Correspondence: sebacat@wsb.edu.pl; Tel.: +48-32-262-28-05

Abstract: This study examines whether information about the winners of the Sustainability Reporting Award (SRA) contributes to the usefulness of the information in financial statements. This study used a sample consisting of 110 winners of SRA (SRA firms) and 110 companies that did not receive SRA (non-SRA firms) from 2008 to 2016. The study found that earnings per share (EPS), earnings per share change (EPSC), and book value per share (BVPS) are value-relevant information. Results of comparison between SRA firms and non-SRA firms show that the positive association between EPS and stock price (P) and the positive association of EPS with stock returns (R) for SRA firms are higher than that for the non-SRA firms. In addition, findings of this study indicate that EPSC is positively associated with R when EPSC and R are measured by Indonesian rupiah (IDR) instead of by percentage, and the positive association between EPSC and R for the SRA firms is higher than that for the non-SRA firms. Thus, the results are sensitive to measures of the variables. However, this study found that value relevance of BVPS for SRA firms is lower than for non-SRA firms. Implication of this study is that information about the winners of SRA contributes to the usefulness of financial statements, especially the information of EPS and EPSC.

Keywords: Sustainability Reporting Award (SRA); financial statements; value relevance; earnings per share (EPS); earnings per share change (CEPS); book value per share (BVPS)

1. Introduction

The importance of the financial markets, institutions, and instruments have grown markedly during the last five decades. Nowadays, with fewer and fewer barriers to international trade and financial flow and with communication technology directly linking each major financial center, the dimensions of international finance and financial markets are becoming unique [1].

In making investment decisions in the capital market, investors need to determine the intrinsic value of securities, such as stocks, which are used as the basis for investment decision making. The market price of the stock, which is the price agreed upon by the seller and the buyer, reflects the valuation of the stock performed by the investors trading the stock [2]. The stock prices may rise or fall due to factors that affect the prices. Performance of a company and its prospects are important factors that affect the stock prices. Information on the performance and the prospects of the company is reflected in the financial statements presented for investment decision-making purposes. Therefore, many studies have been conducted to examine the usefulness of accounting information, including financial statements, by examining the value relevance of accounting information, which, among other things, is done by examining the relationship between accounting information and stock

prices or stock returns. Many previous studies have also examined and found factors affecting the relationship between accounting information and stock prices or stock returns. The factors include, for example, increased working capital efficiency [3], financial crises [4], sustainable cross-border cooperation [5], stakeholders' pressure [6], error occurrence in accounting [7], and presentation of financial statements based on International Financial Reporting Standards (IFRS) [8]. The current study examines whether the Sustainability Reporting Award (SRA) is a factor that affects the value relevance of accounting information. In this study, accounting information is the information contained in financial statements. Therefore, more specifically, this study examines the impact of SRA on the value relevance of financial statements.

Sustainability reporting is an issue that has been the focus of the business world in recent years [9]. In Indonesia, companies are interested in following the Sustainability Reporting Award (SRA) organized by the National Center for Sustainability Reporting (NCSR). Sustainability reporting is the reporting by companies or organizations on the economic, environmental, and social impacts caused by their daily activities. Studies on sustainability reporting have been undertaken and the results of these studies describe companies that implement sustainability reporting, such as having the objective of seeking organizational legitimacy [10], beginning to take into account the oversight of the board, and the arrangement of sustainability responsibilities, as well as attention to compliance, ethics, and external verification [11], and reporting stakeholder issues and achievements in engaging stakeholders [12]. In relation to stock prices, Ansari [13] found that sustainability reporting had a positive effect on stock prices of real estate companies. Findings of other studies such as Loh et al. [14] and Lourenc̨o et al. [15] have shown the usefulness of sustainability reporting. However, previous research findings also show that there are weaknesses in sustainability reporting, such that sustainability reporting is more helpful for internal communication than for external communications [10,16] and that sustainability reporting provides information on the financial value more qualitatively than quantitatively [17]. Other views by Gray [18] and Gray and Milne [19] even disagree or agree less with the usefulness of existing sustainability reporting.

The current study aims to explore whether the Sustainability Reporting Award (SRA) has a positive impact on the value relevance of financial statements; more specifically, whether companies receiving an SRA have a higher value relevance of financial statements than firms that do not receive an SRA. The results of this study are expected to contribute to the accounting research literature particularly by providing empirical evidence as to whether the SRA has a role in investment decision making based on accounting information.

The organization of the paper for the following sections is as follows. Section 2 provides an overview of the literature review of the Sustainability Reporting Award and the value relevance of accounting information. Section 3 presents research methods that include statistical models, research variables, and sample selection. Section 4 reports the results of the study and its discussion. Section 5 presents conclusions, implications, limitations, and suggestions for further research.

2. Literature Review

2.1. Value Relevance of Financial Statements

Based on the conceptual framework, the purpose of financial reporting is to provide useful information for users, especially investors and creditors, in making investment decisions. The scope of financial reporting includes the financial statements and disclosures outside of the financial statements that are the products of accounting. The study on the usefulness of financial information for investment decisions often uses the term 'study on the value relevance of accounting information' since accounting information is relevant in determining the intrinsic value of securities/stocks and subsequently used for investment decisions as reflected in the stock market price. Therefore, the study on the value relevance of accounting information is often carried out by examining the relationship between information in financial statements and/or disclosures outside of the financial statements, called accounting

information, and stock prices or stock returns. An early study that examined the usefulness of accounting information was undertaken by Ball and Brown [20], which was then followed by many subsequent studies. The study on the value relevance of accounting information is a field of financial accounting research whose results are widely published and gives direction to new research in the field [21].

A previous study by Mohan and John [22] on the value relevance of financial information examined the association between earnings per share (EPS) and/or other information such as earnings per share change (CEPS) and book value per share (BVPS). Other studies have examined the impact of various contextual factors on the value relevance of accounting information in various countries such as accounting practices in six Asian countries [23], investor protection in many countries [24], macro factors and bank-level factors in many countries [25], premium/discount firms in the United States [26], intellectual capital or intangible assets in Taiwan [27], improvements in working capital efficiency in Malaysia [3], financial crisis in Turkey [4], and adoption of international financial reporting standards (IFRS) in Norway [28], in Europe [29], in China [30], and in Indonesia [8].

Several previous studies on linking sustainability reporting with firm performance have been conducted. For example, Ching et al. [31] investigated whether there is a relationship between the quality of sustainability reporting and financial performance. Their findings show that there is no association between the quality of sustainability reporting and financial performance. Increasing the quality of sustainability disclosure over time does not indicate an improvement in financial performance. On the other hand, Loh et al. [14] examined and found that firms with sustainability reporting have higher firm values than firms that do not present sustainability reporting. In addition, the quality of sustainability reporting also has an impact on firm value. Lourenço et al. [15] examined the relationship between sustainability reporting and the value relevance of book value and net operating income. More specifically, they examined whether companies included in the Dow Jones Sustainability United States Index (DJSI US) have a higher value relevance of book value and net operating income. Companies that are included in the DJSI are used as indicators of reputation for sustainability leadership. They found that companies that have a reputation for sustainability leadership have a higher value relevance of net operating income. To contribute to the accounting research literature, particularly on the value relevance of accounting information, the present study examines the impact of the Sustainability Reporting Award (SRA) on the value relevance of information contained in financial statements, particularly book value per share, earning per share, and earnings per share change, using data from an emerging market, Indonesia, that recently organized SRA with voluntarily participating companies.

2.2. Sustainability Reporting

Sustainability reporting is based on the Standard of the Global Reporting Initiative (GRI). The sustainability reporting reflects global best practices for reporting publically economic, environmental, and social impacts. The GRI standard provides information about the positive or negative contribution to the sustainable development provided by the organization. The GRI is a non-governmental organization based in the Netherlands. As an initiative of the United Nations Environment Program, it began in 1997 and became independent in 2002. In 2005, Indonesia established a non-profit organization namely the National Center for Sustainability Reporting (NCSR) by five organizations, namely, the Institute of Management Accountants Indonesia (IAMI), the Forum for Corporate Governance in Indonesia (FCGI), the National Committee on Governance (NCG), the Indonesian Association of Issuers (AEI), and the Indonesian–Netherlands Association (INA). NCSR has been appointed as a GRI member since 2006 and is a GRI training partner in Southeast Asia, including Indonesia, Malaysia, Singapore, and the Philippines. NCSR organizes the Sustainability Reporting Award (SRA) every year in order to encourage sustainability reporting by companies in Indonesia.

The GRI standard, as noted above, provides information about the organization's positive or negative contribution to sustainable development, which according to WCED (1987) is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" [32]. According to Gray and Milne [19], sustainability reporting in the public domain, in essence, is absent everywhere in the world because sustainability reporting is extremely difficult or impossible. However, after the GRI Guideline was published, many studies on sustainability reporting have been conducted. Hedberg and Malmborg [10] reviewed the use and experience of GRI in ten companies in Sweden. From interviews with all Swedish companies using GRI guidelines, they found that companies that implement corporate sustainability reporting (CSR) using GRI guidelines did so for a variety of reasons: to seek organizational legitimacy, to meet expectations of increasing CSR credibility, the availability of templates for the preparation of CSR reports became available, it is more helpful in internal communication than in external communications, and it helps companies learn about themselves and see what the company has done. According to Hedberg and Malmborg, GRI guidelines require further development. In contrast to the findings of Hedberg and Malmborg [10], Gray [18] argued that "substantive social and environmental reporting and especially high-quality reporting on (un)sustainability will demonstrate that modern international financial capitalism and the principal organs that support it are essentially designed to maximize environmental destruction and the erosion of any realistic notion of social justice".

Despite the different or even contradictory views of sustainability reporting as described above, the study of sustainability reporting continues. Kolk [11] studied 250 Fortune Global companies and found that many companies have begun to pay attention to board supervision and sustainability accountability structures, although the detailed disclosure has not been widely practiced. Astupan and Schönbohm [33] in a descriptive study on the sustainability reporting performance of the WIG 20 and mWIG 40 companies in Poland provided empirical evidence that the sustainability reporting performance is relatively low. Mulkhan [12] in a content analysis study on corporate social responsibility (CSR) reporting in the Indonesia Sustainability Reporting Award (ISRA) 2010 found that 60 percent of 10 leading companies use the guidelines of the Global Reporting Initiative (GRI). Furthermore, Mulkhan also found that the companies have reported stakeholder issues and their achievements in engaging stakeholders. Findings from the descriptive study conducted by Lins et al. [17] in the top ten mining companies indicate that quantitative information is less communicated than qualitative information and the financial value of environmental, social, and governance (ESG) measures is not fully communicated by the top ten leaders of the mining sector in their reports. A study conducted by Farneti and Guthrie [16] on seven public sector organizations in Australia also found that from the perspective of information providers, the disclosure of sustainability information is more widely used for internal stakeholders and the results of their study are in line with the findings of the Hedberg and Malmborg [10] study. In addition, sustainability reporting is generally conducted using the annual report media. Truant et al. [34] reported that sustainability risk disclosure of a sample of large Italian organizations is positively influenced by the international presence and sustainability experience but it is not affected by the presence of external assurance. Dobre et al. [35] found that environmental and social protection reported by Romanian listed companies could have an effect on the long-run financial performance.

2.3. Sustainability Reporting and Value Relevance of Accounting Information

Previous studies on sustainability reporting have also examined its relationship with accounting information. Ansari et al. [13], using an event study methodology with a global sample (Europe, the United States, and Australia), found that sustainability reporting has a positive effect on stock prices of real estate firms. Based on these findings, Ansari et al. [13] suggested that because sustainability and its communications do have an impact on the valuation of the company, relevant for the decision making for shareholders, efforts to promote the sustainability of the company need to be done.

Findings from the studies on sustainability reporting as described above indicate that there is a positive support trend towards the existence of sustainability reporting [36,37]. Nevertheless, it has also been described above that there are sustainability reporting weaknesses as proposed by Gray and Milne [17] and Gray [18].

The current study explores and examines whether the Sustainability Reporting Award (SRA) can improve the value relevance of the financial statements as part of the accounting information. This study uses two theoretical foundations, namely, decision usefulness theory and signaling theory. The decision usefulness theory is also called the decision usefulness approach to financial reporting [38]. This approach is an approach in the engineering of a financial reporting system that aims to generate financial information that is useful for investors in making investment decisions. The study of value relevance of accounting information is mostly done to test the decision usefulness of the accounting information. The decision usefulness approach to financial reporting is done by providing relevant information and full disclosure. However, not all information about the company revealed through the financial reporting system can be 'captured' by investors. Therefore, managers need to convey signals to investors about 'good information' to assist them in using financial information for investment decision making. 'A signal is an action taken by a high-type manager that would not be rational if that manager was low type' [38]. This signaling theory is based on Spence's [39] work. Several previous studies related to sustainability reporting have used the signaling theory: Dawkins and Ngunjiri [40], Mishra and Suar [41], Robinson et al. [42], Thorne et al. [43], Reimsbach and Hahn [44] and Grabara [45]. The current study explores and examines whether the Sustainability Reporting Award (SRA) can improve the value relevance of the financial statements as part of the accounting information based on the decision usefulness approach to financial reporting and signaling theory. If the SRA is relevant, that is, it is captured as a positive signal by the investor, then the investor will use the information about SRA to support accounting information. Thus, the value relevance of the financial statements of firms receiving an SRA (SRA firms) is higher than that of firms that do not receive an SRA (non-SRA firms). Conversely, if the SRA is irrelevant, that it, it is not captured as a positive signal by investors, then the investor will not use the information about SRA to support accounting information. Thus, the value relevance of accounting information of firms receiving an SRA (SRA firms) is not different from that of firms that do not accept an SRA (non-SRA firms). The present study aims to provide empirical evidence that answers the research questions.

3. Methods

3.1. Regression Models

To examine the impact of the Sustainability Reporting Award (SRA) on the value relevance of financial statements, this study uses the following regression models:

$$P = \alpha 0 + \alpha 1 EPS + \alpha 2 BVPS + \alpha 3 EPS \times SRA + \alpha 4 BVPS \times SRA + \varepsilon \tag{1}$$

$$P = \beta 0 + \beta 1 EPS + \beta 2 BVPS + \beta 3 EPS \times SRA + \beta 4 BVPS \times SRA + \beta 5 EPS \times EPSPOS + \beta 6 BVPS \times EPSPOS + \upsilon \tag{2}$$

$$R = \gamma 0 + \gamma 1 EPS + \gamma 2 EPSC + \gamma 3 EPS \times SRA + \gamma 4 EPSC \times SRA + \omega \tag{3}$$

$$R = \delta 0 + \delta 1 EPS + \delta 2 EPSC + \delta 3 EPS \times SRA + \delta 4 EPSC \times SRA + \delta 5 EPS \times EPSPOS + \delta 6 BVPS \times EPSPOS + \eth \tag{4}$$

$$P = \pi 0 + \pi 1 EPS + \pi 2 BVPS + \pi 3 EPSPOS + \rho \tag{5}$$

$$R = \rho 0 + \rho 1 EPS + \rho 2 EPSC + \rho 3 EPSPOS + \varsigma \tag{6}$$

3.2. Variables

This study uses stock price (P) and stock return (R) as dependent variables. P is the annual closing price of the stock of the firm *j* in year *t*, whereas R is the change in the closing price of the annual stock, which is divided by the firm's average price in year *t* and in year *t* − 1. The independent variables

consist of earnings per share (EPS), earnings per share change (EPSC), and book value per share (BVPS). EPS is the annual earnings per share of company j in year t. BVPS is the book value of equity per share at the end of the year (on financial reporting date) of company j in year t. EPSC is the change in annual earnings per share, which is divided by the firm's average EPS in year t and in year $t - 1$.

The Sustainability Reporting Award (SRA) in this study is a dummy variable that serves as a moderating variable. A winner of an SRA (SRA firm) is given a value of 1, whereas a non-SRA winner (non-SRA firms) is given a value of 0. Thus, SRA is SRA firm j in year t or non-SRA firm j in year t. Furthermore, the SRA variable is multiplied by independent variables to form the following interaction variables: EPS × SRA, BVPS × SRA, and EPSC × SRA. These interaction variables serve to compare the impact of SRA on the value relevance of the financial statements of SRA firms with the impact of SRA on non-SRA firms. Besides, positive EPS (EPSPOS) variable is multiplied by independent variables to form the following interaction variables: EPS × EPSPOS, BVPS × EPSPOS, and EPSC × EPSPOS. These interaction variables are used to test the association between independent variables and the dependent variables for positve EPS only.

3.3. Data and Sample

Data of dependent variables and independent variables that include stock price (P), earnings per share (EPS), and book value per share (BVPS) for 2008–2015 were obtained from Fact Book 2009-Fact Book 2016 (Table of Financial Data and Ratios). Data of stock price, earnings per share, and book value per share for 2016 were derived from the Performance Summary of Listed Companies or from the financial statements available on the Indonesia Stock Exchange (IDX) website due to the Fact Book 2017, which contains 2016 data, not yet being available at the time of this research data collection. The Sustainability Reporting Award (SRA) data for 2008–2016 were accessed from the website of the National Center for Sustainability Reporting (NCSR) organizing the SRA. The lists of SRA winners also served as a sample frame.

The initial sample derived from the list of winners of the SRA included 261 SRAs for the years 2008–2016. The relatively small number of SRA firms is due to participation in the SRA, which is voluntary. This study required stock price data in testing the value relevance of financial statements. Therefore, the winners of SRA that were not listed on the Indonesia Stock Exchange (IDX) of 121 observations were deducted from the initial sample. A company may receive more than one SRA within a year. Thus, the number of SRAs (140) was greater than the number of SRA firms (110) because some SRA firms received more than one SRA. In such cases, the SRA firms were included in the sample only once. Accordingly, the SRA(s) outside the first SRA received by a company of 30 observations was excluded from the sample and resulted in a sample of 110 firm-year observations—the final sample becomes 110 (or 140 minus 30). To test the impact of the SRA winner on the value relevance of the financial statements, this study required, for the purpose of matched pair comparison, 110 firm-year observations that did not receive the SRA. Accordingly, the selection of the non-SRA firms was done with the following criteria. A non-SRA firm: (1) has never obtained an SRA; (2) belongs to the same industry subsector or industry sector; for an example, if an SRA firm is in the industry sector of 'property, real estate and building construction' and in the industry subsector of 'construction', then a company selected as a non-SRA firm is a company in the same industry subsector; (3) the size of the selected non-SRA firm is as close as possible to the corresponding SRA firm's size (as measured by the natural logarithm of total assets); and (4) in the same year as the SRA firm. The selection criteria for the non-SRA firms were intended to minimize the bias in the sample selection. This step resulted in a final sample of 220 firm-year observations consisting of 110 SRA firms and 110 non-SRA firms. The sample selection procedure is presented in Table 1.

Table 1. Sampling procedure.

Sampling Procedure	Observations
	2008–2016
Initial sample: Total SRAs	261
Firms not listed in the IDX	121
Firms listed in the IDX	140
The number of SRA(s) received by a company outside the first SRA received within the same year	30
Final sample:	
SRA firms	110
Non-SRA firms (Control firms)	110
SRA firms and non-SRA firms	220

SRA = Sustainability Reporting Award; SRA firms = Firms as winners of SRA; IDX = Indonesia Stock Exchange.

4. Results and Discussion

4.1. Descriptive Statistics

Descriptive statistics are presented in Table 2 and consist of descriptive statistics for the full sample (Panel A), for the subsample of non-SRA winners or non-SRA firms (Panel B), and for the subsample of the SRA winners or SRA firms (Panel C). The subsample of SRA firms has a higher mean value of stock price (P) and book value per share (BVPS) compared to the non-SRA subsample but it has a lower mean of EPS. These results may be related to a positive relationship of P with BVPS but not with EPS. The mean value of R for SRA firms is lower than the mean of R for non-SRA firms but, conversely, the mean value of EPSC for SRA firms is higher than the mean of EPSC for non-SRA firms. These results may indicate that there is no positive association between R and EPSC. The full sample shows the mean values between the two subsamples.

Table 2. Descriptive statistics.

Variable	Minimum	Maximum	Mean	Std. Deviation
Panel A: Non-SRA Firms and SRA Firms ($N = 220$)				
P	50	74,000	6346	8947
EPS	−516	62,654	696	4249
BVPS	23	18,734	2544	3304
R	−1.85	1.96	0.05	0.65
EPSC	−6.53	2.19	-0.04	0.65
Panel B: Non-SRA Firms ($N = 110$)				
P	50	22,700	3926	4884
EPS	−516	62,654	794	5968
BVPS	23	16,351	2163	3344
R	−1.71	1.75	0.07	0.65
EPSC	−64.67	6.38	−0.98	7.20
Panel A: SRA Firms ($N = 110$)				
P	50	74,000	8766	11,188
EPS	−368	5273	598	799
BVPS	37	18,734	2926	3233
R	−1.85	1.96	0.02	0.66
EPSC	−6.53	2.19	−0.08	0.92

4.2. Correlations

The results of the correlation analysis are presented in Table 3 and consist of Panel A (the correlation for the full sample), Panel B (the correlation for the subsample of non-SRA firms),

and Panel C (the correlation for the subsample of SRA firms). Table 3 shows that P has a positive correlation with BVPS and is significant at the 0.01 level. There is a moderate positive relationship between P and BVPS for Panels A and B and a strong positive relationship between P and BVPS for Panel C. P has a strong positive relationship with EPS but only for Panel C. These results are consistent with the value relevance of BVPS but the value relevance of the EPS is only for SRA firms. Table 3 shows that there is no correlation between R and EPSC for Panel A, Panel B, and Panel C. These results indicate that EPSC has no value relevance. The positive correlation of R with EPS indicates that EPS has value relevance but only for SRA firms.

Table 3. Correlations.

Variable	P	EPS	BVPS	R	EPSC
Panel A: Non-SRA Firms and SRA Firms (*N* = 220)					
P	1				
EPS	0.145 *	1			
BVPS	0.644 **	0.088	1		
R	0.259 **	0.041	0.082	1	
EPSC	0.000	0.051	−0.199 **	0.011	1
Panel B: Non-SRA Firms (*N* = 110)					
P	1				
EPS	0.127	1			
BVPS	0.555 **	0.019	1		
R	0.195 *	0.025	−0.008	1	
EPSC	−0.112	0.05	−0.310 **	0.013	1
Panel C: SRA Firms (*N* = 110)					
P	1				
EPS	0.875 **	1			
BVPS	0.755 **	0.846 **	1		
R	0.344 **	0.247 **	0.183	1	
EPSC	0.166	0.213 *	0.107	0.057	1

** Correlation is significant at the 0.01 level (two-tailed); * Correlation is significant at the 0.05 level (two-tailed).

4.3. Regression Results

Table 4 presents the regression results with the stock price (P) as the dependent variable. The regression results consist of results for model (1), model (2), and model (2a) with a sample of 220 observations. The results of the three models show that the F values are significant at the 0.01 level. The F-test is highly significant; thus, it can be assumed that the model explains a significant amount of the variance in P. The R square and adjusted R square values are greater than 0.7. This means that the linear regression explains more than 70.0% of the variance in the data. The regression results for model (1), model (2), and model (2a) show that the EPS×SRA coefficient is positive and significant at the 0.01 level. These results indicate that the value relevance of the EPS for the SRA firms is higher than that for the non-SRA firms. The regression results for model (1), model (2), and model (2a) show that the BVPS×SRA coefficient is negative and significant at the 0.01 level. These results indicate that the value relevance of the BVPS for the SRA firms is lower than that for the non-SRA firms. Coefficients of EPS × EPSPOS BVPS × EPSPOS as controlling variables representing EPS and BVPS for positive EPS are not significant. Use of year-dummy variables increases the R square.

Regression results with stock return (R) as the dependent variable consisting of model (3), model (4), and model (4a) and with a sample of 220 observations are presented in Table 5. The results show that only model (4a), which includes year-dummy variables, has a significant F value (F = 4.776 significant at the 0.01 level) and the R square and adjusted R square values are 0.246 and 0.194 respectively. The EPS × SRA coefficient for model (4a) is positive and significant at the

0.05 level while the EPSC $\times$ SRA coefficient is also positive but not significant. These results indicate that using the return model, the value relevance of the EPS for the SRA firms is higher than for the non-SRA firms. When R and EPSC are measured by Indonesian rupiah (IDR) instead of by percentage, the results show that EPSC is also positively associated with R. This is consistent with the association between P and EPS (Note: The regression results are not presented).

Table 6 presents the regression results with the stock price (P) as the dependent variable for the subsample of SRA firms and for the non-SRA firm subsample. For the non-SRA firms, the coefficient of BVPS is significant at the 0.01 level indicating the value relevance of BVPS is higher for non-SRA firms than for SRA firms. For the SRA firms, the coefficient of EPS is significant at the 0.01 level indicating the value relevance of EPS is higher for SRA firms than for non-SRA firms. However, using natural logarithm for P and BVPS, the results change (Note: regression results are not presented). The BVPS coefficient is positively significant at the 0.01 level for both model (5) and model (5a) of the SRA firms and non-SRA firms. These results indicate that BVPS has value relevance for both SRA firms and non-SRA firms.

Table 4. Regression results—full sample (dependent variable: price).

Variable	Model 1		Model 2		Model 2	
	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.
(Constant)	1741.728000	0.000	1663.948000	0.000	−617.661100	0.590
EPS	0.100947	0.192	−4.694605	0.468	−6.169837	0.345
BVPS	0.856329	0.000	0.594069	0.048	0.553438	0.069
EPS × SRA	11.530460	0.000	11.571520	0.000	11.257350	0.000
BVPS × SRA	−0.746169	0.007	−0.795819	0.005	−0.752536	0.010
EPS × EPSPOS			4.794499	0.458	6.284446	0.337
BVPS × EPSPOS			0.314919	0.334	0.375542	0.254
Year-dummies	No		No		Yes	
N	220		220		220	
F	135.461	0.000	90.135	0.000	40.301	0.000
R Square	0.716		0.717		0.733	
Adjusted R Square	0.711		0.709		0.715	

EPS = earnings per share; BVPS = book value per share; SRA = 1 if a firm is an SRA winner, 0 if a firm is a non-SRA winner; EPSPOS = 1 if EPS is positive, 0 if EPS is negative. Year-dummies: 'no' if year-dummy variables are not included in the model, 'yes' if year-dummy variables are included in the model; results are not presented.

Table 5. Regression results—full sample (dependent variable: return).

Variable	Model 3		Model 4		Model 4	
	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.
(Constant)	0.004239	0.932	−0.028132	0.583	−0.696957	0.000
EPS	0.000004	0.695	0.000146	0.863	0.000422	0.589
EPSC	−0.000227	0.979	−0.005251	0.558	−0.007127	0.390
EPS × SRA	0.000135	0.056	0.000153	0.030	0.000135	0.038
EPSC × SRA	0.021540	0.756	−0.039165	0.588	0.009177	0.892
EPS × EPSPOS			−0.000146	0.863	−0.000416	0.594
EPSC × EPSPOS			0.135039	0.006	0.129401	0.005
Year-dummies	No		No		Yes	
N	220		220		220	
F	1.116	0.350	2.068	0.058	4.776	0.000
R Square	0.020		0.055		0.246	
Adjusted R Square	0.002		0.028		0.194	

EPS = earnings per share; EPSC = earnings per share change; SRA = 1 if firm is an SRA winner, 0 if firm is a non-SRA winner; EPSPOS = 1 if EPS is positive, 0 if EPS is negative. Year-dummies: 'no' if year-dummy variables are not included in the model, 'yes' if year-dummy variables are included in the model; results are not presented.

Regression results with stock return (R) as the dependent variable for the subsample of SRA firms and for the non-SRA firm subsample are presented in Table 7. The EPS coefficient is positive and

significant at the 0.01 level for the SRA firms but the EPS coefficient is not significant for the non-SRA firms. The EPSC coefficient is positive but not significant for both the SRA firms and the non-SRA firms. These results are consistent with the regression results presented in Table 5, which indicate that the value relevance of the EPS for the SRA firms is higher than for the non-SRA firms but the EPSC has no value relevance for either the subsample of SRA firms or the non-SRA firms.

Table 6. Regression results—Non-Sustainability Reporting Award (non-SRA) Firms and Sustainability Reporting Award (SRA) Firms (dependent variable: price).

Variable	Non-SRA Firms				SRA Firms			
	Model 5		Model 5		Model 5		Model 5	
	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.
(Constant)	1326.790	0.199	737.151	0.612	1594.948	0.521	184.259	0.945
EPS	0.090	0.169	0.118	0.076	11.633	0.000	12.077	0.000
BVPS	0.795	0.000	0.835	0.000	0.184	0.547	0.046	0.894
EPSPOS	1326.790	0.199	658.714	0.542			184.259	0.945
Year-dummies	No		Yes		No		Yes	
N	110		110		110		110	
F	17.575	0.000	6.218	6.218	115.621	0.000	32.059	0.000
R Square	0.332		0.411		0.766		0.783	
Adjusted R Square	0.313		0.345		0.759		0.758	

EPS = earnings per share; BVPS = book value per share; EPSPOS = 1 if EPS is positive, 0 if EPS is negative. Year-dummies: 'no' if year-dummy variables are not included in the model, 'yes' if year-dummy variables are included in the model; results are not presented.

Table 7. Regression results—Non-SRA Firms and SRA Firms (dependent variable: return).

Variable	Non-SRA Firms				SRA Firms			
	Model 6		Model 6		Model 6		Model 6	
	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.
(Constant)	−0.041895	0.805	−0.596898	0.024	−0.520286	0.113	−1.421564	0.000
EPS	0.000002	0.833	0.000008	0.431	0.000191	0.018	0.000190	0.007
EPSC	−0.001994	0.838	−0.001191	0.899	−0.041349	0.589	−0.007610	0.914
EPSPOS	0.131	0.479	0.179298	0.326	0.446026	0.184	0.561832	0.059
Year-dummies	No		Yes		No		Yes	
N	110		110		110		110	
F	0.194399	0.900	2.063	0.030	2.938	0.037	5.868	0.000
R Square	0.005472		0.188		0.077		0.397	
Adjusted R Square	−0.022675		0.097		0.051		0.329	

EPS = earnings per share; EPSC = earnings per share change; EPSPOS = 1 if EPS is positive, 0 if EPS is negative. Year-dummies: 'no' if year-dummy variables are not included in the model, 'yes' if year-dummy variables are included in the model; results are not presented.

Results of the additional tests of the impact of SRA on value relevance of EPS, BVPS, and EPSC that use Equations (5b) and (6b) are presented in Tables 8 and 9. Table 8 shows that the use positive EPS subsample, BVPS is positively associated with P for non-SRA firms, while EPS is positively associated with P for SRA firms. Table 9 shows that the use of positive EPS subsample, EPS is positively associated with R for SRA firms and CEPS is positively associated with R for non-SRA firms. Thus, CEPS has a positive association with R for firms with positive EPS.

Table 8. Regression results—Non-SRA Firms and SRA Firms (dependent variable: price) for positive EPS subsample.

Variable	Non-SRA Firms				SRA Firms			
	Model 5		Model 5		Model 5		Model 5	
	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.
(Constant)	2313.870	0.000	1346.294	0.381	1261.637	0.093	−2521.375	0.188
EPS	0.091	0.197	0.118	0.100	11.710	0.000	12.175	0.000
BVPS	0.817	0.000	0.877	0.000	0.166	0.595	0.024	0.947
Year-dummies	No		Yes		No		Yes	
N (Positive EPS)	91		91		91		91	
F	18.109	0.000	4.924	0.000	161.911	0.000	32.938	0.000
R Square	0.292		0.381		0.760		0.778	
Adjusted R Square	0.275		0.304		0.756		0.754	

EPS = earnings per share; BVPS = book value per share; Year-dummies: 'no' if year-dummy variables are not included in the model, 'yes' if year-dummy variables are included in the model; results are not presented.

Table 9. Regression results—Non-SRA Firms and SRA Firms (dependent variable: Return) for positive EPS subsample.

Variable	Non-SRA Firms				SRA Firms			
	Model 6		Model 6		Model 6		Model 6	
	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.
(Constant)	0.027274	0.709	−0.484218	0.033	−0.072565	0.374	−0.871540	0.000
EPS	−0.000001	0.909	0.000005	0.632	0.000188	0.022	0.000184	0.010
EPSC	0.140692	0.009	0.127888	0.019	−0.016881	0.871	0.040952	0.670
Year-dummies	No		Yes		No		Yes	
N (Positive EPS)	91		91		91		91	
F	3.613969	0.031	2.526	0.011	2.757	0.068	5.908	0.000
R Square	0.075901		0.240		0.051		0.386	
Adjusted R Square	0.054899		0.145		0.033		0.321	

EPS = earnings per share; EPSC = earnings per share change; Year-dummies: 'no' if year-dummy variables are not included in the model, 'yes' if year-dummy variables are included in the model; results are not presented.

4.4. Discussion

This study examines the value relevance of the financial statements that include earnings per share (EPS), changes in earnings per share (EPSC), and book value per share (BVPS) and compares whether the value relevance of the financial statements for firms receiving a Sustainability Reporting Award (SRA firms) is higher than for non-SRA firms. The study found that BVPS and EPS have value relevance whereas the value relevance of EPSC depends on the measures used for the R and EPSC. Further findings indicate that the value relevance of EPS for SRA firms is higher than that for non-SRA firms, whereas the value relevance of BVPS for SRA firms is lower than that for non-SRA firms. The results of this study indicate that investors respond positively to EPS as a relevant accounting information in stock valuation, and the market response to the EPS for the SRA winners is higher than the market response to EPS for non-SRA winners. From the perspective of the signaling theory, the market captures information about the winners of SRA, provided by the National Center for Sustainability Reporting (NCSR) and which is pursued by participating companies of SRA, as a positive signal because the SRA participating companies and SRA winners are considered to be managed by high-type managers, that is, managers who have inside information about future prospects in favor of sustainable development. This information may be viewed in line with the interests of shareholders who expect a sustained return on their investment. This is indicated by the positive relationship between book value per share (BVPS) and stock price, which means that BVPS is the main factor in stock valuation. Nevertheless, the study finds that although EPS has value relevance, there is no difference in the value relevance of

the EPS for the SRA firms from the non-SRA firms. In addition, the results of this study show that EPSC has no value relevance for the two subsamples. The EPSC that is unrelated to return can be caused by other factors that affect returns, other than EPCS. The findings of this study indicate that EPS, instead of EPSC, has value relevance; that is, EPS plays a role in stock return determination and the value relevance of EPS for SRA firms is higher than for non-SRA firms. Thus, BVPS and EPS are important information for investors in determining the stock value and the information about the winners of SRA has a positive impact on the value relevance of BVPS and EPS.

5. Conclusions

This study aims to examine whether the information on the Sustainability Reporting Award (SRA) winners has an impact on the value relevance of the financial statements, which include earnings per share (EPS), earnings per share change (EPSC), and book value per share (BVPS). The results of this study indicate that EPS has value relevance and the value relevance of EPS for the SRA firms is higher than that for non-SRA firms. This means that the higher the EPS the higher the stock price and the relationship between EPS and stock price is higher for SRA firms than for non-SRA firms. The study also found that there is value relevance of EPSC when the EPSC is measured by Indonesian rupiah (IDR) instead of by percentage. The results are consistent with the value relevance of EPS. However, findings of this study show that the value relevance of BVPS for the SRA firms is lower than that for non-SRA firms. Thus, information about the winners of SRA has an impact on the value relevance of the financial statements, especially information about EPS and EPSC. The implication of the findings of this study is that the determination of the SRA winners to the SRA participants can improve the usefulness of information in financial statements, especially the information about EPS and EPSC.

This study has limitations: among others, the number of observations selected for the sample is relatively small. This is due to the limited participants and winners of SRA organized by the National Center for Sustainability Reporting (NCSR). Participating in the SRA is voluntary and only part of the participants receive an SRA. The winners of SRA, not participants of SRA, were selected as factors that impacted the value relevance of financial statements because the winners of the SRA indicated a relatively high quality in implementing the SRA. The number of observations in the sample becomes even less due to the use of criteria that the winners of SRA are companies listed on the Indonesia Stock Exchange (IDX). This criterion was required in this study because of the need for information about stock prices for testing the value relevance of financial statements. The selection of samples with these specific criteria limits the generalization of the results of this study. Further studies using a greater number of observations, when data are available, and/or testing the usefulness of accounting information with other methods, can be done to test the validity of the results of this study. Further studies can also be conducted to examine whether the signals captured from information about the winners of SRA are in line with the future performance of the companies. In addition, future studies can also be undertaken to investigate whether the SRA winners empirically contribute more to sustainable development. These two issues are interesting issues that are beyond the current study.

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