



The Effect of Sustainability Report Disclosure and Innovations on Earnings Informativeness With Environmental Performance as Moderating

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Abstract

As climate change has been worsens, businesses must pay more attention to how their activities affect the environment. The intentions of this current research are to analysed at the influence of environmental performance in moderating the relationship between sustainability reporting disclosure and earnings informativeness. This research paper used Purposive Sampling Method as a sampling technique and identified forty-two (42) companies in manufacture and mining sector listed in the IDX, which follow PROPER consistently and publishes audited annual reports from 2017-2019. Meanwhile, an Absolute Difference Value Method uses to test the effect of the moderating variable, and SPSS V27 use as a statistic analytical tool to analyse the hypothesis. The empirical test result indicate that environmental performance could weaken the effect of sustainability report disclosure on the informativeness of earnings, and on the other hand it also could strengthen the influence of corporate innovation on earnings informativeness. On the other hand, it doesn't have a significant direct effect on the informativeness of earnings.

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*Sustainability reporting
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1. Introduction

Before deciding to invest in the capital market, investors will consider many things before deciding to invest in a company. Generally, investors will be concerned to determine whether the company's financial performance is good or bad through the financial statement. Those are pieces of information used by both internal and external parties for making business and investment decisions. Investors usually respond the most to information on earnings because it reflects the company's performances. Earning Response Coefficient (ERC) can be used to see investor and creditor reactions in the capital market regarding financial statement disclosure.

Stock return which related on reporting quality can be measure by ERC. The higher value of the ERC indicates that the investor was interested in earning information disclosed by the company. However, information on earnings alone is sometimes not sufficient for making investors' decisions because it is possible that the information is biased. Murwaningsari (2008) states that bias in earnings information is due to, among others, the delivery of financial reports that is not timely and the existence of earnings management practices

as well as insufficient information disclosed in the financial statements. Other than financial information, stakeholders also view the disclosure of non-financial information. It's also an important factor in decision making. Stakeholders hope that a company must have a sustainability strategy (Ernst & Young, 2014). In general, more information is better than less. The more information that investors have, the more likely the company will experience excessive returns, as investors get a more complete picture of the company's vision. Sustainability Reporting (SR) can be used to meet stakeholder expectations of the availability of sustainability performance information. Apart from financial information, stakeholders also view the disclosure of non-financial information as an important factor in decision making (Assagaf, Murwaningsari, Gunawan, & Mayangsari, 2019).

Sustainability Report is an open practice for organizations to report on their impact on the economy, the environment and society. It includes their contribution to objectives of sustainable development, either positive or negative. Internal and external stakeholders can form opinions and make decisions on the contribution of the organization to the objectives of sustainable development (Global Reporting Initiative, 2016). The number of Sustainability information disclosed by the company indicates that they were more informative. Stakeholders use additional information that communicates through the Sustainability Report to reduce uncertainty. It can help them better interpret and understand financial information (Bona-Sanchez, Perez-Aleman, & Santana-Martin, 2017; Swarnapali, 2019b). Indonesia has several challenges in the future regarding sustainability reports that need to be solved. Until today, despite the rapid growth of small and medium-sized enterprises in Indonesia, no one has reported on their contribution to economic, social and environmental development. While many of the companies listed on the Indonesian Stock Exchange have not published Sustainability Reports. GRI and IDX latest data shows that out of a total of 629 Listed Companies as of 23 April 2019, only one hundred and ten (110) sustainability reports had been released (Liputan 6.com, 2019).

The changes in the environment and technologies always rapidly happen. A firm must build up its capabilities to innovate. Canh, Liem, Thu, and Khuong (2019) argue that innovations are the main differentiator to make a sustainable competitive advantage by modified products (product innovation) or made alterations in production (process innovation). Any organization, large or small, wishing to improve its innovation capability and maturity levels and become seen by investors. Some studies have proven that economic performance tends to be associated with their innovation activities. Although some researchers still have a different conclusion regarding the positive impact of innovations performed on product and process toward firm performance. Part of them argue that product innovation will be more efficient and will better support the company performance, while other researchers argue otherwise (Klewitz & Hansen, 2014; Mohnen & Hall, 2013). On the other hand, Haapalainen and Kantola (2015); West and Bogers (2014) argue that innovation may also involve and occasionally needs collaboration or joint effort with outsider stakeholders (open innovation). In these studies, we examine whether the combinations of process, product, and opened innovations proceed by the company.

Indonesia's high economic growth in recent years has not matched with environmental quality. Indonesia still has a lot to improve, since compared to ASEAN countries, Indonesia's environmental performance is still far behind. According to the 2020 Environment Performance Index (EPI), Indonesia is still ranked 116 out of 180 countries, while Singapore is 39 and Malaysia is 68 (Morse & Morse, 2019). The Environmental Performance Index (EPI) compiled and summarized data on the sustainability of the state from around the world. They rank 180 participating countries on their environmental health and ecosystem quality, using 32 performance indicators to measure how close they are to their environmental policy objectives at national level.

Indonesian Government has been implementing the Program for the Assessment of Company Performance Ratings in Environmental Management (PROPER) since 2002. These programs intend to increase company role and awareness of environmental conservation. Five different colours (gold, green, blue, red, and black), are award to the company based on their environmental performance. Just by looking at the colours, the public finds out the environment management level of the company. Based on the evaluation of 2,045 companies in 2018-2019, there were still two companies in the black category and 303 companies labelled by red. There were 1,507 blue companies, 174 green companies, and only 26 companies that managed to get the gold category.

The market response varies between each company caused by some phenomenon that already discusses before, including the lack of non-financial disclosure, company environmental performance, and type of innovation to support and maintains a sustained competitive advantage. The research questions are: (a) Does the disclosure of the sustainability report affect earnings informativeness? (b) Does innovation affect earnings informativeness? (c) Does the relationship between the disclosure of sustainability reports and the informativeness of earnings moderate by environmental performance? (d) Does the relationship between innovation and earnings informativeness moderate by environmental performance?

Investors trends nowadays are increasingly considering investing in companies that protect the environment. That's why this research tries to develop further from previous research by analyzing environmental performance as a moderator variable. Furthermore, it also adds some control variables, such as company size, profitability, leverage, and growth opportunities. Various parties expected to receive benefit

from this research include investors, Issuers, and Accounting Professions. This research gave knowledge to an understanding regarding the disclosure of non-financial indicators such as sustainability disclosure and the importance of innovation, which are two pieces of information that can be useful for analysis and investment decision making.

2. Literature Review & Hypothesis Development

2.1. Signalling Theory

Publishing a sustainability report to the public is one way for companies to give positive signals to potential investors to influence their investment decisions in the capital market. In this research, signalling theory has been used to strengthen the analysis of the publication of sustainability reporting on the coefficient of response to earnings (ERC). Signalling theory was also related to information asymmetry because it assumes that each party will receive different information (Assagaf et al., 2019). In this case, Information asymmetry occurs when one party possesses more material information about the organization than the other party (Celani & Singh, 2011). We use Signalling Theory to define the behaviour of each party when they have access to different pieces of information

Over time, investors need information that can describe the company's performance more broadly and is not limited to financial reports. Information conducted from the sustainability report believed could assist investors in making more concrete and rational decisions. A signal is a flow of information. If we see from a business point of view, it can be in the form of stock price information, dividend announcements, CSR programmes, environmental conservation programmes, etc. If we see from a business perspective, it might be in the term of stock price information, dividend announcements, CSR programmes, environmental conservation programmes, etc. In this case, the one who acts as a signal provider is the insider company management (executive, director, or manager), and Outsiders (individuals, investors, employees) who do not have access to the insider information will be the receiver. The interaction between providers and receivers reflect in the feedback (Bae, Masud, & Kim, 2018). The signalling theory indicates that sustainability or CSR reports are used by management to signal to stakeholders, such as investors and potential investors, the company's responsibility and sustainability management policy (Ching & Gerab, 2017).

2.2. The Informativeness of Earnings

The informativeness of earnings are being assessed by Earning Response Coefficient (ERC) as stated by Mashayekhi and Aghel (2016). ERC is a form of measuring the information content in profit. Scott (2015); defined the earnings response coefficient as an indicator of a level of abnormal returns on stocks in response to unexpected earnings components. The Earnings Response Coefficient has been commonly used to evaluate the quality of good earnings. Different market responses to company earnings can be effect by several things such as profit persistence, profit quality, opportunity growth, beta, corporate capital structure, and price informativeness. There is indeed a significant positive influence on the interaction among earnings persistence, and earnings quality on ERC value. That means the more persistent and better the earnings quality is, the higher the ERC value will be. But on the other hand, if the beta reflects a higher systematic risk, the ERC will be lower. We can see the stock price reaction to earnings on the ERC (Kothari & Sloan, 1992). According to Herawaty (2018) the market player's confidence level on earning quality can be measure by the market performance and the Earnings Response Coefficient (ERC). A low (high) level of ERC shows a weak (strong) market reaction to earnings information, and those can indicate a bad (good) quality of earnings. In the context of company reporting disclosures, Bona-Sanchez et al. (2017); ElBannan and Farooq (2019) argue that the power to explain the earnings is higher for companies that disclose sustainability reporting. That means the market player's got additional information to assess earning through reporting communication.

2.3. Sustainability Reporting Disclosure

Sustainability reporting helps organizations to measure performance, setting long-term goals, and make their operations more sustainable. It contains disclosures about the organization's positive and negative impacts on the ESG. The sustainable development impact on organizational strategies and activities can be managed by understanding sustainability reporting (Haque & Ntim, 2018). The underlying goals for sustainability reporting are how the organization contributes to improving economic, environmental, and social conditions at all level such as local, regional, and also global levels. Sustainability Reporting is one of the essential corporate practices that recognize had a contribution to the satisfying demand of diverse stakeholders (Hahn & Kühnen, 2013). Many Standards-setting bodies such as the Global Initiative for Sustainability Ratings (GISR), Carbon Disclosure Project (CDP), and Dow Jones Sustainability Index (DJSI) help in providing ratings to evaluate the impact on the environment. Meanwhile, other institutions provide guidance on the production of a Sustainability Report, such as The Organization for Economic Co-operation and Development (OECD), The United Nations Global Compact, the International Standard for Social Responsibility (ISO 26000), and Global Reporting Initiative (GRI). The increased numbers of companies that used GRI Standards show that Company awareness of the benefit of publishing a sustainability report also increases (Bona-Sanchez et al., 2017). A positive response by market participants is for companies that carried

out sustainability disclosures. Since so much information in Sustainability reports, it useful to complements financial data, helping stakeholders create better interpret financial reporting. Sustainability Disclosure enhances the informativeness of Earning by communicating the value of relevant information to capital market participants (Swarnapali, 2019b). Based on that, we propose the first hypothesis,

H1: Sustainability Reporting disclosure has a significant positive effect toward the Informativeness of Earnings.

2.4. Innovation

Innovation is a concept that is difficult to understand because it includes various activities and results. One of the generally accepted definitions referring to OECD/Eurostat (2018) said that An innovation is a brand-new or enhanced product. and/or process that significantly differ from the previous. New Product made to the potential's customers/user, and brought into the unit utilization (process).

If we see Innovations from an Economic Perspective, can create new jobs. But on the other hand, innovation also has a dark side in the economy. Gârleanu, Kogan, and Panageas (2012) argues that workers from the existing firm had more pressure and reduce firm profit. Gu (2005); Jia (2018) argue that a company with such an exploration-oriented strategic innovation plan appears to be even more sensitive to having fallen risk share prices compared to an exploitation-oriented strategy innovation. Innovations activities such as creating new products and new processes in just a short time can win customer loyalties and boost company performance, but require time to make a positive change in firm profitability. Canh et al. (2019) argue that sometimes innovations need collaborations with people or organizations outside the company (open innovation). These practices can implement in many different ways, such as collaborations with researchers in universities, between other companies, or participation in an innovation ecosystem. Furthermore, based on the literature, we aim to analyse the relation process, product, and open innovation on earnings informativeness. The company's innovation, either product or process innovation, has been reported to have a significant positive impact on the company's performance according to Canh et al. (2019). Specifically, he suggests it can make products or services in terms of features or price will be more attractive to consumers. Innovation can help the company to maintain market share and more competitive. The second hypothesis based on the above explanation is

H2: Innovation has a positive effect on earning informativeness.

2.5. Environmental Performance

We measure the Company's Environmental Performance through environmental management rating (PROPER), held by the Indonesian Government (Ministry of Environment and Forestry). Company's level of compliance measure based on applicable regulations. Regularly PROPER announced to the public, so there will be reputation incentives or disincentive, depending on the level of compliance. Indonesian Ministry of Environment and Forestry began to develop an assessment of company performance ratings in environmental management as an alternative instrument since 1995. The business and or activity performance rating consists of five different colours. (a) Gold is for the company that demonstrated excellence in environmental management consistently. (b) Green is for the business that has carried out beyond compliance in the environmental management system. (c) Blue is for the company that has been complied with the regulation requirements. (d) Red for the business that has not been complied with the regulation requirements. (e) Black, labelled for the company that deliberately commits acts or neglect against the contamination and damage of the environmental, breach of law, or misconduct the administrative penalties. The public will know the company's level of compliance by looking at the existing colour ratings. Herawaty (2018) state that the company with environmentally friendly will make the investor more interested. They tend to disclose more information to market participants. As long as they keep improving their environmental performance, the company value will also be increase. Based on that, the third hypothesis proposed is:

H3: Environmental Performance strengthens the effect of Sustainability Reporting Disclosure on The Informativeness of Earnings.

According to Wahyudianto and Boedisantoso (2017) the application of PROPER had been a successful evaluation tool for environmental management and a trigger for sustainable industrial technology innovation. Success innovations show by the increase in environmental performance. The fourth hypothesis is :

H4. Environmental Performance strengthens the influence of Innovation on the Informativeness of Earnings.

3. Research Methodology

3.1. Sample Selection and Data Collection

The entire population is a company in the manufacturing and mining industries listed in IDX. For the sample collection we use a Purposive Sampling Method which identifies 126 firm years out of 42 companies that consistently follow the PROPER assessment over a three-year period (2017 - 2019). The secondary sources of data collected in the form of an annual report have been downloaded from the website of IDX, and the sustainability report was being downloaded from the company website.

3.2. Variable Measurement

3.2.1. Earning Response Coefficient

Earning Informativeness as a dependent variable in this research is assessed by using Earning Response Coefficient (ERC). The measurement is done in stages as in which is formulated by Assagaf et al. (2019); Murwaningsari (2008). The regression coefficient (α_1) from the equation below is the ERC coefficient.

$$CAR_{i,t(-5,+5)} = \alpha_0 + \alpha_1 UE_{i,t} + \varepsilon_{i,t} \quad (1)$$

Based on Equation 1, $CAR_{i,t(-5,+5)}$ as the cumulative abnormal return of company i in year t , and in period of ± 5 days from the declaration of the financial statement report. α_0 indicate a constant, α_1 as the ERC coefficient, meanwhile $UE_{i,t}$ is firm Unexpected Earning in years t , and $\varepsilon_{i,t}$ are the error components. The first step is the calculation of the CAR. Based on Assagaf et al. (2019); Herawaty (2018); Murwaningsari (2008) we used eleven (11) days as window (time interval) which is, 5 days before (-5), 1 day (0) and 5 days after (+ 5) company submit their financial reporting. The CAR formulated as follows:

$$CAR_{i,t(-5,+5)} = \sum_{t=-5}^{t=+5} AR_{i,t} \quad (2)$$

$$AR_{i,t} = R_{i,t} - RM_t \quad (3)$$

$$R_{i,t} = \frac{P_{i,t} - P_{i,t-1}}{P_{i,t-1}} \quad (4)$$

$$RM_t = \frac{IHSgt - IHSgt-1}{IHSgt-1} \quad (5)$$

In Equation 2 until 5: $AR_{i,t}$ indicates the Abnormal Return of company i in year t ; $R_{i,t}$ as the actual return of shares from company i in year t ; RM_t as the Market Return in year t ; $P_{i,t}$ as the closing price of stock i on day t ; $P_{i,t-1}$ as the closing price of stock i on day $t - 1$; $IHSgt$ as the composite stock price index on day t ; $IHSgt-1$ as the composite stock price index on day $t-1$.

Next step is to compute the unexpected income (EU) as a result of change throughout the company's earnings per share in the current year minus the company's earnings per share in the previous year and divided by price per share in the previous year. The equation for unexpected earnings is as shown in Equation 6:

$$UE_{i,t} = \frac{EPS_{i,t} - EPS_{i,t-1}}{P_{i,t-1}} \quad (6)$$

Where:

$UE_{i,t}$ is the unexpected earnings of firm i in year t , $EPS_{i,t}$ is the earnings per share of firm i in year t , $EPS_{i,t-1}$ is the earnings per share of firm i in year $t-1$, and $P_{i,t-1}$ is the price per share of a year before.

The last step is to regress the cumulative abnormal return (CAR) and the unexpected earnings (EU) to determine the value of the earnings response coefficient (ERC).

3.2.2. Sustainability Disclosure

In this study the Sustainability disclosure will include all dimensions such as economic dimension, also environmental and social dimension. By following prior studies (Mahmood & Orazalin, 2017) We develop an SR dimension measurement based on a content analysis approach and use a value of 1 if the corresponding information is declared and 0 otherwise.

We design the SR dimensions measurement based on content analysis approach using a value of 1 if a corresponding information is declared and 0 otherwise. Specifically, we quantify sub-indices for economic, environmental and social sustainability indicators through application of internationally recognized GRI guidelines and standards.

We therefore follow the GRI-Reporting Standards, which consist of 86 GRI Topic Specific Standards items, including economic (13 items), environmental (33 items) and social items (40 items). Then, the formula for the calculation of the score index for each dimension, based on (Rachmawati, 2017; Tarigan & Semuel, 2015) as follows:

$$Index = n / k \quad (7)$$

As state in Equation 7: **Index** is disclosure score; **n** is the number of items that discloses; and **k** represent the Number of items expected to disclosed (86item).

3.2.3. Innovation

Innovation is investigated under three aspects: product, process and whether the activities are open or closed innovation. In order to measure product innovation activities, we used a dummy variable receiving 1 where significant or minor product improvements have been made or new products have been introduced on the market in the respective year and 0 otherwise (Canh et al., 2019; Slater, Mohr, & Sengupta, 2014). Process innovation measure with dummy variable having received 1 where significant or minor process improvements have been introduced or a new process has been devised for the production and/or products delivery, and if otherwise received 0 (Canh et al., 2019; Slater et al., 2014). Open innovation receives 1 if firms innovate with

the support or coalition of external organizations, and 0 if their innovative activities rely solely on their inner R&D efforts without any of the support of external organizations, this is consistent with Zhang, Yang, Qiu, Bao, and Li (2018).

3.2.4. Environmental Performance

Based on research by Rakhiemah and Agustia (2012) a score given for the company PROPER rating to measure the environmental performance. The PROPER performance assessment system provides company ratings in five different colours such as Gold (excellent) scoring as 5, Green (Very Good) scoring as 4, Blue (Good) scoring as 3, Red (Bad) scoring as 2, and Black (Very Bad) with Score 1.

3.2.5. Control Variable

The control variable is used to increase the adjusted R-square value so that the model becomes more robust or robust. There are some control variables which will be examined to assess their relationship with the dependent variable developed based on the research models, such as the firm leverage level (LEV) that may influence the earning informativeness evaluated by the debt-to-equity ratio, which could be designed by dividing total liabilities of the company by their equity (ElBannan & Farooq, 2019). The effect of Growth Opportunities (GRW) on ERC is then controlled by Price to Book Value (PBV), which is calculated by the ratio of the company's stock market price above its equity book value. This study is also used Profitability (ROA) is determined by the Return on Assets, which is calculated by dividing the net income against its total assets and shown as a percentage (%). To control the effect of the firm size (SIZE) on the informativeness of earnings, this paper then used log of the total asset (Assagaf et al., 2019).

3.3. Data Analysis Methods

This paper includes the analysis of panel data. With the multiple linear regression method formulated as follows:

The equation for Hypotheses 1 and 2 is as follows:

$$ERC_{it} = \alpha + \beta_1 SRD_{it} + \beta_2 INOV_{it} + \beta_3 LEV_{it} + \beta_4 GRW_{it} + \beta_5 ROA_{it} + \beta_6 SIZE_{it} + \varepsilon \quad (1)$$

In analysing the moderating variable (Fruco & Shearon, 1991) proposed a slightly different regression model to test the effect of moderation, namely the absolute difference value model of the independent variables.

The equations for Hypotheses 3 and 4 are as follows

$$ERC_{it} = \alpha + \beta_1 SRD_{it} + \beta_2 PROPER_{it} + \beta_3 |SRD - PROPER|_{it} + \beta_4 LEV_{it} + \beta_5 GRW_{it} + \beta_6 ROA_{it} + \beta_7 SIZE_{it} + \varepsilon \quad (2)$$

$$ERC_{it} = \alpha + \beta_1 INOV_{it} + \beta_2 PROPER_{it} + \beta_3 |INOV - PROPER|_{it} + \beta_4 LEV_{it} + \beta_5 GRW_{it} + \beta_6 ROA_{it} + \beta_7 SIZE_{it} + \varepsilon \quad (3)$$

Where ERC_{it} is Earning Response Coefficient of company i in year t , SRD_{it} as the Sustainability Report Disclosure of company i in year t , $INOV_{it}$ indicate innovation of company i in year t , $PROPER_{it}$ is environmental performance score of company i in year t , LEV_{it} is Leverage of company i in year t , GRW_{it} is growth of company i in year t , ROA_{it} is profitability of company i in year t and $SIZE_{it}$ is Size of the company i in year t .

4. Results and Discussion

Descriptive statistics data are provided through Table 1. ERC average value is 0.000. The average total sustainability disclosure score is 50,33% indicate that manufacture and mining sector still need to improve their disclosure.

Table-1. Descriptive statistic.

	N	Min	Max	Mean	SD
Dependent variable					
ERC	126	-0.44	0.55	0.0000	0.1360
Independent variable					
SRD	126	0.23	0.837	0.5033	0.1644
INOV	126	2	3	2.60	0.4930
Moderating variable					
PROPER	126	2	5	3.07	0.5540
Control variables					
SZ	126	26.93	32.01	29.396	1.3684
ROA	126	-0.10	0.53	0.0809	0.1044
GRW	126	-0.15	11.05	1.3542	1.7553
LEV	126	0.02	12.36	1.0323	1.6085

The average values for the innovation are 2.6. the average score for PROPER is 3.07 this indicate that firm in manufacture and mining sector overall has blue (good) environmental performance. Mean value from Variable Sustainability Disclosure, Innovation, Environmental Performance and Size are greater than the

standard deviation indicates that the data distribution is homogeneous, meanwhile mean value from variable ERC, Profitability, and Leverage are less than the standard deviation which indicates heterogeneous data distribution.

Table 2 displays the variables' correlation coefficients. ERC is positively and significantly correlated with SRD ($\rho < 0.05$), INOV and GRW ($\rho < 0.01$). We also find positive and insignificant correlation between SRD and SIZE ($\rho < 0.01$). In addition, we find a negative and insignificant association between INOV and GRW.

Table-2. Spearman Rho Correlation.

		SRD	INOV	PROPER	ERC	SZ	ROA	GRW	LEV
Spearman's rho	SRD	1.000	0.095	.391**	.181*	.595**	0.111	-0.086	-0.149
			0.288	0.000	0.042	0.000	0.215	0.340	0.095
	INOV		1.000	0.054	.260**	-0.010	.210*	-	-0.086
				0.551	0.003	0.913	0.018	0.003	0.339
	PROPER			1.000	0.049	.457**	.405**	-0.023	-.178*
					0.588	0.000	0.000	0.800	0.046
	ERC				1.000	0.006	0.020	.463**	-0.062
						0.946	0.823	0.000	0.488
	SIZE					1.000	.247**	0.166	-0.034
							0.005	0.063	0.703
ROA						1.000	0.042	-	
							0.639	.392**	
GROWTH							1.000	-0.216*	
								0.015	
LEV								1.000	

Note:

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table 3 presents the regression results for hypothesis 1 and 2. Our Model Explanatory Power is 8.9 percent, which is relatively low but however still acceptable in accounting research. The empirical research shows that Sustainability Report Disclosure have no significant effect on ERC. This outcome is not in line with Bona-Sanchez et al. (2017); Swarnapali (2019b). In this case hypothesis 1 is rejected. On the other hand, researchers found a significant positive association between innovation and the ERC ($\rho < 0.05$), so hypothesis 2 is accepted.

Table-3. Empirical Result of Hypothesis 1 & 2.

Variables	Prediction	Coefficient	P value
SRD	+	0.022	0.801
INOV	+	0.059	0.019**
LEV	-	-0.019	0.014**
GRW	+	0.013	0.062*
ROA	+	-0.127	0.283
SZ	+	0.003	0.779
Adj. R ²	0.089		

Note:

** P value is significant at the 0.05 level (2-tailed).

* P value is significant at the 0.10 level (2-tailed).

This finding is in line with Canh et al. (2019) For control variable we found negative relationship between Leverage ($\rho < 0.05$) and ERC, and a positive significant relationship between Growth ($\rho < 0.10$) on ERC. Other variable control such as Profitability and Size does not have a significant effect on the ERC.

The result for hypothesis 3 and 4 present in Table 4. It shows that PROPER_SRD have significant relationship (sig 0.003 < 0.05). the result indicate environmental performance moderates the relationship between Sustainability Report Disclosure and ERC in a negative direction shown -0.53. We can also say that environmental performance weakens the relation between SRD and ERC. On the other hand, environmental performance moderates the relationship between SRD and ERC (sig 0.03 < 0.5) in a positive direction (0.38). it is shown that environmental performance strengthens the relationship between Innovation and SRD.

Table-4. Empirical Result of Hypothesis 3 & 4.

Variables	Coefficient	P value
SRD	0.003	0.854
INOV	0.034	0.006**
PROPER	-0.011	0.435
PROPER_SRD	-0.053	0.003**
PROPER_INOV	0.038	0.030**
SZ	0.006	0.560
ROA	-0.032	0.793
LEV	-0.012	0.071*
GRW	0.022	0.003**
Adj. R2	0.154	

Note:

**. P value is significant at the 0.05 level (2-tailed).

*. P value is significant at the 0.1 level (2-tailed).

5. Conclusion, Limitation and Future Research

The information level of Sustainability Reporting disclosure relationship with earning informativeness is still diverse. Theoretically, according to Bona-Sanchez et al. (2017) the relationship between disclosure (both mandatory and voluntary sustainability disclosure) and the informativeness of earnings is positive. Sustainability Report is a media to communicate with investors, to reduce information asymmetry when profit information gives less information about firm value (Cantele, Tsalis, & Nikolaou, 2018; Imoniana, Soares, & Domingos, 2018). The research findings indicate that investors do not rely on the information disclosed in the Sustainability Report of the company, since most companies in the manufacturing and mining sector in Indonesia have not yet published a Sustainability Report. Empirical findings reveal that environmental performance can weaken (full-moderate) the relationship between SRD and ERC. Manufacture and mining sectors have crucial roles in their contribution to domestic income and employment rate. Specifically, Product, process, and open innovations can support firm sustainability in these digitalization eras. Innovation strategies help firms to maintain and increase their competitiveness in the global market.

Due to a short period and small data observation (only three years), this research can't discover the long-term effect of firm's innovation activities on earning informativeness. Recommendations for future research are to include a different type of organization and to extend the timeframe.

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