Descriptive Study of Sustainability Report, Green Process Innovation, and Firm Value in Indonesia

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ABSTRACT
This paper aims to describe the concern of companies in Indonesia in publishing sustainability reports (SR) as required in POJK No. 51/POJK.03/2017, to reveal quality SR, and to carry out green process innovation (GPI). Employing three samples of companies in the hospitality and tourism industry in Indonesia from 2021-2022, this descriptive study was conducted as the research methodology. This study obtained interesting findings regarding the lack of company compliance in publishing SR and maintaining the quality of disclosures. Furthermore, GPI integration is the next important issue that companies must address. The signaling theory perspective is used to see how investors react to information received from the company.

Keywords: *Firm Value, Hospitality and Tourism Industry, Green Process Innovation, Sustainability Report.*

1. INTRODUCTION

Indonesia's hospitality and tourism industry is directed by the Ministry of Tourism and Creative Economy toward sustainable tourism (Kemenparekraf, 2022), so companies in this industry are automatically expected to position their goals in the same direction. A company is an essential component because it is a productive economic resource and the main driver for a country's achievement of sustainable development (Chang et al., 2017). This research describes how concerned public companies in Indonesia's hospitality and tourism industry fulfill their obligations to prepare sustainability reports, present quality SR disclosures, and take the initiative to carry out green process innovation (GPI). These goals must be underlined because they can provide a strong signaling effect regarding adequate sustainability practices for shareholders. This research contributes by describing the level of concern of public companies in Indonesia in the hospitality and tourism industry to report their sustainability activities, maintain the quality of sustainability reports (SR), and integrate GPI in their business activities to provide a positive signal for investors as the main users of financial statement and SR.

The surge in the COVID-19 pandemic has hit the tourism industry (Mehta et al., 2023) and can potentially reduce company profits (Hariandja & Vincent, 2022; Amar et al., 2021). Based on initial analysis of financial statements in the Consumer Services sub-sector, more than 50% of companies will experience losses in 2022. However, in 2023, companies' financial performance will slowly improve, marked by a reduction in the number of companies experiencing losses below 50%. The hospitality and tourism industry's fragility requires appropriate handling to survive and move towards sustainable tourism development (Sobaih et al., 2021).

Based on the Indonesia Stock Exchange (IDX), the hospitality and tourism industry is included in the consumer services sub-sector with the largest number of companies in the consumer cyclical sector (see Table 3, Panel A). The dominance of the number of companies shows that this industry has a big opportunity to attract investors. Moreover, Indonesia has received many international awards, such as the World Leisure Award 2023 (kemlu.go.id, 2023), Best Tourism Village 2023 (kemenparekraf.go.id, 2023), World's Greatest Places 2022, the World's Most Naturally Beautiful Country 2022, and many more (www.cnnindonesia.com, 2022). The company's concern for the issuance of sustainability reporting and adequate disclosure, as well as implementing green process innovation, follows the signaling theory perspective proposed by Spence (1973).

1.1. Sustainability Reporting

The hospitality and tourism industry in Indonesia is directed by the Ministry of Tourism and Creative Economy towards sustainable tourism, so Indonesia must develop tourism concepts that have long-term impacts on the environment, social, cultural, and economic (Kemenparekraf, 2022). SR acts as a tool or signal to inform investors about the company's sustainability activities and proves the company's concern for the government in implementing sustainable tourism. SR is a non-financial report that reveals a company's economic, environmental, and social aspects (Arayssi et al., 2020; Dilling & Harris, 2018; Birkey et al., 2016).

Financial Services Authority (OJK) in POJK no. 51/POJK.03/2017 emphasizes the importance of SR as a report that must be made by companies that are effective in 2021. Based on the signaling theory perspective, the issuance of SR can influence an increase in the company's share price (Reverte, 2016; Carnevale & Mazzuca, 2014) or positively affect the company. This could be due to investors' concern for obtaining information that provides a broad picture of company activities, apart from financial reporting.

1.2.Green Process Innovation

The COP26 Glasgow conference asked for a commitment from all world leaders to reduce global temperature increases to no more than the threshold of 1.5 0C. GPI is part of green innovation related to the firm's environmental management process (Lin et al., 2014). Chen et al. (2006) stated that GPI is useful for improving environmental management performance to meet environmental protection requirements. This means that companies must integrate all their business activities to have less negative environmental impact. ISO 14001 contains environmental management systems that align with the green innovation process. Following the signaling theory perspective, adopting ISO 14001 is an appropriate proxy for implementing green process innovation within the company (Li et al., 2017; Lin et al., 2014; Chen et al., 2006).

2. RESEARCH METHOD

This research uses a descriptive study (Sekaran & Bougie, 2016:43) to describe how concerned Indonesia's hospitality and tourism industry is in carrying out sustainability reporting practices and integrating GPI. Based on the Indonesia Stock Exchange (IDX) industrial classification, the research sample used is the consumer cyclical sector, especially the consumer services sub-sector from 2021-2022.

Table 1. Sample distribution of the research

Sample	Descriptions	Total Sample	
1	Consumer Cyclicals	244	firm-year observations
2	Consumer Cyclicals (issued SR)	203	firm-year observations
3	Consumer Services	57	firm-year observations

Table 2. Variables and measurements

Variables	Measurements
lnMC	Capital market as a proxy of firm value, which is measured by the natural logarithm.
SR	Sustainability Report: 1 if a firm issued a sustainability report, 0 otherwise.
GPI	Green Process Innovation: 1, if a firm adopted ISO 14001, 0 otherwise (Chen et al., 2006; Lin et al., 2014; Li et al., 2017).
ConSer	Consumer Services is one of the subsectors of Consumer Cyclicals, which is identical to the hospitality and tourism industry categorized by IDX.
SDI	The Sustainability Disclosure Index is the disclosure's unweighted scoring scaled to a value between 0 and 15 points (Hassan et al., 2020).
ROA	Return on asset is another proxy of firm value, which is measured by net profit to total assets.

As important support for the descriptive study, this research uses the univariate analysis test according to the data's normality, namely the Independent Sample t-Test and Mann-Whitney. The research sample is divided into 3 sample distribution groups, as presented in Table 1. Table 2 presents the analyzed variables and their measurements. These variables can provide a picture of sustainability reporting practices and green process innovation in Indonesia.

3. RESULTS AND DISCUSSIONS

Table 3. Composition of companies publishing the Sustainability Report (SR)

PANEL A						
Sector	2021			2022		
	Total Company	SR	%	Total Company	SR	%
Energy	71	58	81.69%	76	60	78.95%
Basic Materials	93	80	86.02%	96	82	85.42%
Industrials	54	43	79.63%	56	47	83.93%
Consumer non-Cyclicals	98	88	89.80%	113	101	89.38%
Consumer Cyclicals	132	99	75.00%	142	111	78.17%
Healthcare	23	23	100.00%	28	27	96.43%
Financials	106	94	88.68%	106	98	92.45%
Properties & Real Estate	80	63	78.75%	85	65	76.47%
Technology	28	21	75.00%	34	26	76.47%
Infrastructures	57	48	84.21%	62	50	80.65%
Transportation & Logistic	28	18	64.29%	30	18	60.00%
TOTAL	770	635	82.47%	828	685	82.73%
PANEL B						
Consumer Cyclicals	2021			2022		
	Total Company	SR	%	Total Company	SR	%
Automobiles & Components	12	11	91.67%	13	12	92.31%
Household Goods	11	9	81.82%	12	12	100.00%
Leisure Goods	2	1	50.00%	3	3	100.00%
Apparel & Luxury Goods	23	15	65.22%	23	15	65.22%
Consumer Services	47	31	65.96%	48	32	66.67%
Media & Entertainment	14	11	78.57%	14	12	85.71%
Retailing	23	21	91.30%	29	25	86.21%
TOTAL	132	99	75.00%	142	111	78.17%

Note: Data was tabulated from the Indonesian Stock Exchange and Companies' Sustainability Reports.

Table 3, Panel A shows that overall, there has been an increase in the number of entities listed in IDX and SR reporting. The consumer cyclical sector has the largest proportion of companies, 132 and 142, respectively, in 2021 and 2022. However, the published SR percentage never exceeds the bottom three, 75% and 78.17%, respectively, in 2021 and 2022. In Panel B, the customer services sub-sector (the hospitality and tourism industry) also dominates the number of companies, 47 and 48, respectively, in 2021 and 2022. The percentage of SR reporting in this sub-sector is also low, 65.96% and 66.67%, respectively, in 2021 and 2022. This condition needs attention because apart from being required by POJK No. 51/POJK.03/2017, investors also have the right to obtain information regarding sustainable activities carried out by the company.

Table 4, Panel A, shows that in the consumer cycle sector (sample 1), the t-value is 3.994 with a significance level of 1%. This means that the average company capital market significantly differs between companies that issue SRs and those that do not. A positive sign indicates that the capital market of companies that issue SR is higher; in other words, SR can provide a signaling effect for investors to respond positively to the company's efforts to provide information about their business activities. However, Table 4, Panel A, Sample 1 shows that companies that integrate GPI in their environmental management do not have capital market company averages that are significantly different from non-GPI companies.

Table 4, Panels A and B, Sample 2 shows that companies that issue SR only have an average SDI significantly different from companies that integrate GPI and non-GPI (t-value = -2.916, $p < 0.01$). This means that companies that adopt ISO 14001 have a lower ability to disclose sustainability activities than companies that do not adopt ISO 14001. What needs to be underlined is that there is an interesting issue regarding the company's ability to disclose quality information to investors regarding the company's activities towards sustainable tourism. This condition certainly shows the company's failure to send a positive signal regarding GPI integration within the company. In the end, the company has the opportunity to increase its company value. This research gives interesting evidence to follow up in future research by expanding the research sample and using regression analysis.

Table 4, Panels A and B, Sample 3 is a test for companies included in the hospitality and tourism industry. There was not a single statistical difference test result that was significant. However, the sign on the t-value indicates that even though companies have a higher average market value, companies that integrate GPI within their companies still have a lower average value of disclosure quality and ROA than non-GPI companies. The average SDI for companies that integrate GPI is only 5.523 out of a total score of 15; ironically, the number of these companies is only eight.

Table 4. Green process innovation, Sustainability Disclosure Index, and firm value

PANEL A – the Parametric Test					
	Mean	SD	Mean	SD	t-value
Sample 1					
	SR (n = 203)		Non-SR (n = 41)		
Capital Market (lnMC)	6.968	1.569	5.921	1.321	3.994 ***
Sample 2					
	ConSer (n = 57)		non-ConSer (n = 146)		
Capital Market (lnMC)	6.729	1.105	7.061	1.710	-1.630
	GPI (n = 53)		non-GPI (n = 150)		
Capital Market (lnMC)	7.122	1.406	6.913	1.623	0.892
Sample 3					
	GPI (n = 8)		non-GPI (n = 49)		
Capital Market (lnMC)	6.744	0.641	6.727	1.168	0.063

Table 4. Green process innovation, Sustainability Disclosure Index, and firm value

PANEL B – the non-Parametric Test							
	Min.	Max.	Mean	Min.	Max.	Mean	Test statictic
Sample 1							
	GPI (n = 58)			Non-GPI (n = 186)			
Capital Market (lnMC)	2.708	10.896	6.791	3.178	10.918	6.756	-1.643
Sample 2							
	ConSer (n = 57)			Non-ConSer (n = 146)			

Sustainability Disclosure Index (SDI)	0	12	5.667	0	12	5.576	-0.231
	GPI (n = 53)			Non-GPI (n = 150)			
Sustainability Disclosure Index (SDI)	1	13	5.574	0	12	5.528	-2.916 ***
Sample 3							
	GPI (n = 8)			Non-GPI (n = 49)			
Sustainability Disclosure Index (SDI)	1	12	5.523	0	12	5.667	-1.202
Return on Asset (ROA)	-0.124	0.054	-0.038	-0.443	0.109	-0.034	-0.046
Notes: Due to normality issues, the parametric independent sample t test and the non-parametric MannWhitney test were conducted for panel A and B, respectively. ***significant at the 1% level.							

4.CONCLUSION

As expected by the Ministry of Tourism and Creative Economy, companies operating in the hospitality and tourism industry have a great opportunity to contribute to achieving sustainable tourism. Previous research shows that SR can provide positive signals to investors (Reverte, 2016; Carnevale & Mazzuca, 2014). The urgency of the quality of disclosure in SR is fundamental evidence regarding the realization of sustainability practices in companies. The integration of green process innovation can support the immediate achievement of sustainability tourism goals.

This research illustrates the low awareness of companies in the hospitality and tourism industry about publishing SRs and achieving high-quality disclosures. These companies also still do not have a high motivation to integrate green process innovation through adopting ISO 14001. Companies should start paying attention to these issues because high company value can be realized when investors capture the positive signaling effect.

AUTHORS' CONTRIBUTIONS

This article is derived from SH's work to conduct preliminary research on sustainability practices, especially sustainability reporting in a specific industry with a significant potential contribution to Indonesia. Therefore, SH conducted a literature review and collected relevant data. DFK contributed to guiding the direction of the article through comments and suggestions and to preparing the work. All authors read and approved the final manuscript.

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