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Research article

Sustainability Performance of State-owned and Private Banks Amid the COVID-19 Pandemic

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Abstract.
The COVID-19 pandemic has compelled companies worldwide to explore their corporate responsibility toward the environment and society and achieve the global sustainability goals. Some are pessimistic, while others predict that companies will increase their sustainability disclosures amid the pandemic. Using panel data regression of nine banks listed on the Indonesia Stock Exchange, the authors found a significant increase in sustainability disclosure during the pandemic. The increase occurred in total and in every dimension of sustainability (economic, environmental, and social). In addition, they found that state-owned banks disclosed more than private banks during the research period.

Keywords: disclosure, sustainability, pandemic, state-owned banks

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1. Introduction

Since the establishment of the SDGs (Sustainable Development Goals) program by the United Nations in 2015, various stakeholders have begun to encourage and pressure companies to contribute and report on their sustainability performance [1]. This definition of sustainable development refers to the condition in which the current development does not harm the process of fulfilling the needs of future generations [2]. Therefore, in the context of corporate relations and sustainability, accounting plays a role in reporting accurately the company's activities in the social, environmental, and economic fields [3]. This sustainability disclosure is also used by companies as their communication channel with stakeholders to convey the company's short-term and long-term vision and strategies; hence it is expected to improve the company's financial performance [4].

The COVID-19 pandemic that still haunts every country in the world has caused a crisis in almost all lines of life, including in economic aspect. Goodell [5] mentions that this outbreak has caused a sizeable economic and financial impact around the world. The International Monetary Fund (IMF) predicts that the global economy will shrink by

3%. Similar to the 2008 global crisis, the pandemic has also had a direct impact on companies. During pandemic, several measures such as restrictions on a large scale and quarantine have been implemented by the government, bringing the direct impact on the real economy, leading to demand and supply shocks simultaneously [6]. Other impacts such as liquidity risk have become a major challenge for small and large companies, because economic activity and business models have almost stopped. There is a concern that companies will reduce their policies and initiatives on CSR activities to support sustainability as the activities also require costs [7].

Nevertheless, there is an interesting fact that investors have shifted their investments massively to sustainable investments. It is proven that in the first quarter of 2020 there were around 45.6 billion USD of funds that went globally to sustainability investment funds [8]. Investors believe that their funds will be safer if they are invested in companies that have not only prioritized the financial aspect. Some empirical evidence states that businesses that demonstrate their responsibility to the environment are more resilient to systemic risks. This phenomenon creates an opportunity for managers to capture market demand for sustainability information, hence they will try to show the sustainability performance of their companies both through websites and annual reports [9].

While research on corporate sustainability continues to grow and emerge, there is still limited literature that provides empirical evidence on whether companies will reduce or improve their sustainability performance during the pandemic [10], [11]. This study aims to fill that void.

This research provides at least three main contributions. First, we try to provide empirical evidence on changes in corporate sustainability performance before and during the pandemic. To achieve this, we provide a more comprehensive understanding by investigating the disclosure of corporate sustainability in three dimensions according to the GRI guidelines, namely economic, environmental, and social. Second, we descriptively divide the sample into state-owned companies and private companies to see which types of companies convey more information about sustainability from year to year of the research period.

We selected banks for our study based on the grounds that Indonesian banks are now required to increase their involvement in sustainability issues through the sustainable finance mechanisms. This requirement is stipulated in the Financial Services Authority Regulation (*Peraturan Otoritas Jasa Keuangan*) No. 51 /POJK.03/2017 regarding the Implementation of Sustainable Finance by Financial Services Institutions, Issuers and

Public Companies. The regulation positioned banking sector as an important contributing actor of the sustainability aspects, including the social and environmental factors.

State-owned banks and private banks have quite different characteristics. As stated by Nicolo et al. [12], state-owned enterprises face more comprehensive stakeholders than private companies. This causes state-owned companies to be more active in disclosing their social responsibility and sustainability performance. Meanwhile, Kao, Erin H., et al. [13] found that in China state-owned companies have quite severe agency problems. So that the company's sustainability activities are weaker and lower than private companies. The findings from various existing research literatures state that the different characteristics possessed by public and private companies cause the results of the two to vary. Therefore, it is necessary to continue investigating the issue that has mixed results on the empirical evidence. This article aims to analyse differences on the sustainability disclosures reflected in sustainability report between private and state-owned banks before and during a pandemic, particularly in the context of Indonesia.

Therefore, this study seeks to answer the following questions:

Table 1

RQ1.	Are there significant differences in sustainability information reported by banks before and during the pandemic?
RQ 2.	What dimensions of sustainability were reduced or increased during the pandemic?
RQ 3.	Do state-owned banks disclose more sustainability information than private ones?

2. Method

The research population of this study is banks in the banking industry listed on the Indonesia Stock Exchange. We focus on banks to avoid bias across industry sectors. Banks' greater involvement in sustainability can go through the direct and indirect channels. The direct involvement can be in the form of various CSR activities conducted by banks for communities and environment. While the indirect involvement can be exercised by providing credits for green companies through the sustainable finance mechanisms. Banking sector has also been shown to affect social welfare and contribute to economic development [3]. Even GRI (2020) put the sector into one group, which is considered to have a largest sustainability impact compared to the other sectors.

The sampling technique in this research is *purposive sampling* where the selected sample has met the criteria we have set, namely banks that published a sustainability report for 2017-2020. The 2017 period was selected based on the year following the last GRI conference which has moved from providing guidance to setting the first global standard for sustainability reporting. We selected 9 banks as the sample which is presented in Table 1 below.

The data was hand collected from the annual report and sustainability report and then was processed using panel data regression techniques. The dependent variable used is SRDS (Sustainability Reporting Disclosure Score) that represent the sustainability performance. The SRDS value is obtained by conducting content analysis on the information published by the sample banks based on the GRI (Global Reporting Initiative) index. A value of 1 was given if the bank discloses the item and 0 otherwise. The GRI index contains at least 148 items suggested to be disclosed by companies. We exclude general items (GRI 100) and *non-applicable* items in the banking industry such as disclosure of biodiversity (GRI 304), waste (306), supplier environmental assessment (GRI 308), and others. The final index consists of 74 items which are the company's total disclosure for the year. To provide a more detailed picture, we then separated the scores based on each dimension consisting of 17 items of economic dimension, 21 items of environmental, and 36 items of social dimension. Meanwhile, the measurement of other variables is described in Table 2.

Table 2: Research Sample

No.	Code	Bank name	Bank Type
1.	BBCA	Bank Central Asia Tbk.	Private
2.	BBKP	Bank Bukopin Tbk.	Private
3.	BBNI	Bank Negara Indonesia Tbk.	State-owned
4.	BBRI	Bank Rakyat Indonesia Tbk.	State-owned
5.	BBTN	State Savings Bank Tbk	State-owned
6.	BMRI	Bank Mandiri Tbk.	State-owned
7.	BNII	Bank Maybank Indonesia Tbk	Private
8.	BNLI	Bank Permata Tbk.	Private
9.	NISP	Bank OCBC NISP Tbk.	Private

There are 4 (four) equation models that we use to find out the differences in the disclosure of sustainability information before and during the pandemic. The first model to test the difference in total disclosure while the other three are used to test disclosures in each dimension, namely the economic, environmental, and social dimensions.

Table 3: Definition and Measurement of Variables.

SRDS_Total	$= \alpha + \beta_1 Pandemic + \beta_2 Size + \beta_3 RoA + \beta_4 Lev + \mu_{it}$	(1)
SRDS_Eco	$= \alpha + \beta_1 Pandemic + \beta_2 Size + \beta_3 RoA + \beta_4 Lev + \mu_{it}$	(2)
SRDS_Env	$= \alpha + \beta_1 Pandemic + \beta_2 Size + \beta_3 RoA + \beta_4 Lev + \mu_{it}$	(3)
SRDS_Soc	$= \alpha + \beta_1 Pandemic + \beta_2 Size + \beta_3 RoA + \beta_4 Lev + \mu_{it}$	(4)

Table 4

Variable	Definition and Measurement
	Dependent Variable
Sustainability Reporting Disclosure Score (SRDS)	Percentage of the bank's disclosure value. Value 1 if the bank discloses and 0 otherwise. The total disclosure was then divided by the total items that should have been disclosed. There are 4 dependent variables, including: SRDS _Tot (total disclosure), SRDS _Eco (disclosure on the economic dimension), SRDS _Env (disclosure on the environmental dimension), and SRDS _Soc (disclosure on the social dimension).
	Independent Variable
Impact of the Pandemic (Pandemic)	A dummy variable representing the pandemic period. The pandemic occurred in 2020; hence a value of 1 is for 2020 and a value of 0 is for others.
	Control Variable
Company Size (Size)	Firm size is measured using Ln of total assets.
Profitability (RoA)	Profitability is measured using ROA (*Return on Assets*) which divided net income by the company's total assets.
Corporate Risk (Lev)	Company risk, measured using the ratio of total debt/total assets which is also known as leverage.

3. Results and discussion

3.1. Descriptive Analysis

Table 3 below provides a summary of descriptive statistics for all variables. In the table it can be concluded that the average sustainability disclosure in the industry is still low because it is only 2 4.2 % of the total 74 disclosure items. From the table it can also be seen that the minimum value for disclosure of all samples is only 9. 5% (7 items) and the highest is around 45.9 percent (35 items).

Another interesting thing that can be noted in table 3 below is that there are samples that do not reveal any information on the environmental dimension. Almost all samples in the study focus more on economic disclosure than the other two dimensions. It is evident from the average economic disclosure of 28.3 %, which is higher than the average disclosure on other dimensions.

3.2. Autocorrelation and Multicollinearity

To avoid possible problems with the data in this study, we performed the *Pearson correlation* and VIF (*Variance inflation factor*). The *Pearson correlation test* was conducted to determine whether the variables were free from the auto-correlation problem. Taking the threshold of 0.9 like related studies, there are no variables affected

Table 5: Descriptive Statistics of All Variables.

Variabel	Min	Max	Mean	Std. Dev.
SRDS_Tot	0.095	0.459	0.242	0.105
SRDS_Eco	0.118	0.588	0.283	0.129
SRDS_Env	0	0.571	0.184	0.133
SRDS_Soc	0.083	0.5	0.257	0.110
Pandemic	0	1	0.25	0.439
Size	32.01	34.95	33.58	.976
ROA	-0.046	0.04	0.018	0.016
Lev	0.778	0.911	0.848	0.036

by this problem. Although in Table 4 there is a strong relationship between the variables SRDS _Soc and SRDS _Tot (0.904), both are dependent variables that will be regressed separately so they do not have relationship with each other. Likewise with the results of the VIF test, there is no multicollinearity problem because the resulting values are all below 10.

Furthermore, as depicted in Table 4, there is a significant relationship between the pandemic and the value of sustainability both in total and in all dimensions. These findings provide preliminary evidence that the pandemic has affected the sustainability practices of key companies in the banking industry.

3.3. Disclosure of Sustainability Information During the Pandemic

In this section we will present the regression results of the impact of the pandemic on corporate sustainability disclosures. Table 5 below contains four *Random Effect* regression models. The four models represent each independent variable, namely total disclosure and three dimensions.

Random Effect regression was selected after the Breusch and Pagan Lagrangian multiplier test and Hausman test were performed. *P value* in brackets (*** P < 0.01, ** P < 0.05, * P < 0.1)

The results in Table 5 above show several important points. First, in model (1) which examines the effect of the pandemic on corporate sustainability disclosures, it shows that during the pandemic there has been a significant change from before the pandemic took place (2017 to 2019). This change looks positive, which means that there has been a drastic increase in the number of sustainability items disclosed by the company.

Second, the test results on changes in the level of disclosure on each dimension of the GRI version (economic, environmental, and social) are presented in models 2 to 4. Of the

Table 6: Correlation Matrix and VIF Value.

	Var	VIF	1	2	3	4	5	6	7	8
1.	SRDS _Tot	-	1							
2.	SRDS _Eco	-	0.824 * ** (0.000)	1						
3.	SRDS _Env	-	0.861 *** (0.000)	0.653 *** (0.000)	1					
4.	SRDS _Soc	-	0.904 *** (0.000)	0.60 7 *** (0.000)	0.627 *** (0.000)	1				
5.	Pandemic	3.01 (0.332)	0.473 *** (0.003)	0.40 9 ** (0.013)	0.37 8 ** (0.023)	0.43 8 *** (0.007)	1			
6.	Size	3.00 (0.333)	0.078 (0.651)	0.20 5 (0.232)	0.048 (0.78)	0.00 7 (0.97)	0.059 (0.731)	1		
7.	ROA	1.90 (0.525)	-0.165 (0.336)	-0.074 (0.664)	-0.15 3 (0.374)	-0.175 (0.306)	-0.358 ** (0.032)	0.70 3 *** (0.000)	1	
8.	Lev	1.47 (0.678)	0.04 2 (0.809)	0.1 2 (0.486)	-0.016 (0.926)	0.027 (0.875)	0.011 (0.949)	-0.67 3 *** (0.000)	- 0.575 *** (0.000)	1

P value in brackets (*** P < 0.01, ** P < 0.05, * P < 0.1)

Table 7: Regression Results of Pandemic Effects on Sustainability Disclosure.

Variable	Model (RE)			
	(1)	(2)	(3)	(4)
Pandemic	0.12245 *** (0.002)	0.10309 * (0.053)	0.10907 * (0.051)	0.13534 * ** (0.001)
Size	0.01549 (0.720)	0.06598 * (0.077)	0.02305 (0.677)	-0.01105 (0.809)
RoA	0.84129 (0.646)	-0.50877 (0.812)	-0.17116 (0.946)	1.7975 (0.337)
Lev	0.31081 (0.640)	1.4292 * (0.067)	0.27866 (0.763)	0.05645 (0.934)
Constanta	-0.58727 (0.736)	-3.161 2 (0.051)	-0.8508 (0.709)	0.51466 (0.778)
R2 (within)	0.4092	0.2316	0.2471	0.4039

three models, all three seem to show a change in the level of disclosure of sustainability information in each dimension, although with different levels of significance. In testing the economic and environmental dimensions, the significance level is 10%. As for the social dimension, the level of significance is very strong (below 1%). Overall, it can be concluded that the pandemic has affected all dimensions of the company's sustainability information disclosure practices.

This result confirms the premise that company managers are aware of the phenomenon of increasing investment fund flows with the label of sustainability, meaning that the investors prefer to invest their funds in companies that have a high level of commitment towards sustainability. This provides empirical evidence in exploratory studies such as those conducted by Folger-Laronde et al. [8] and Adams & Abhayawansa [9]. Furthermore, Adams & Abhayawansa [9] expressed their concern that if managers took advantage of this condition opportunistically, it would lead to a degradation of the quality and original purpose of sustainability disclosure.

3.4. Different Disclosure Pattern in State-Owned Banks and Private Banks

To see the trend of disclosure of sustainability information between state-owned and private banks, we present the data on the level of sustainability disclosure for both in Figure 1 below.

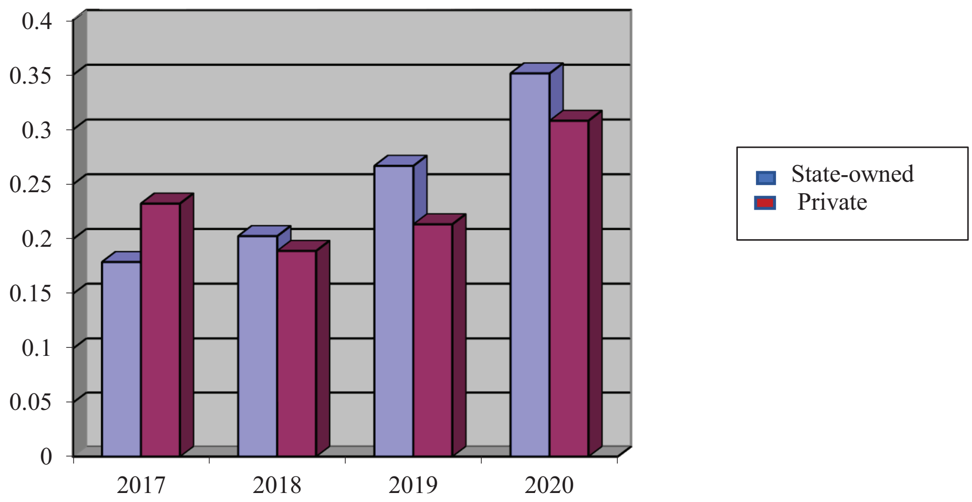

Figure 1: Level of total sustainability disclosure.

In Figure 1 it can be concluded that from year to year, both state-owned and private companies have seen an increasing trend even though there was a decline in private companies between 2017 and 2018. Furthermore, Figure 1 shows that the total sustainability disclosure of state-owned banks is higher than 2018 until now.

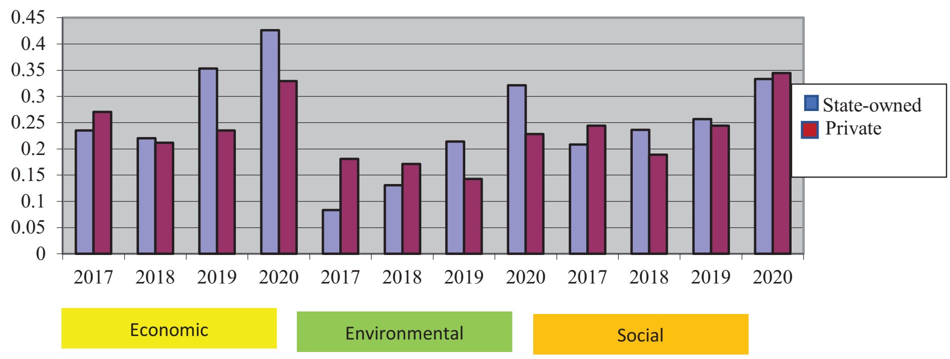

Figure 2: Level of total sustainability disclosure per dimension.

To clarify the findings in the previous paragraph which states that the total sustainability disclosure of state-owned banks is higher than that of the private sector, Figure 2 presents the average disclosure of each dimension. The results show that in almost all dimensions state-owned banks in Indonesia outperform the level of disclosure of private companies. These findings indicate that state-owned banks receive more pressure from stakeholders because of their special position, especially during the Covid-19 Pandemic. State-owned enterprises are owned directly or indirectly by the state, using public funds and generally contribute to the performance of public duties [12], [14]. The sustainability disclosure pattern is somewhat different from the “normal situation” in various contexts, as it was found that private banks’ disclosures surpassed state-owned banks in Bangladesh [15] and Kazakhstan [16].

4. Conclusion

The COVID-19 pandemic which is still engulfing many countries in the world has caused various problems in people’s lives, including for companies because of various policies that have been forced to be implemented by the government. Many assume that this condition can make companies lower their sustainability performance and disclosures. On the other hand, the increase in sustainability investment occurs in the capital market may be captured by managers as an opportunity for them to help companies from economic downturn.

The results of this study confirm that it seems that managers have used sustainability reports to inform potential investors that they are not abandoning their environmental and social responsibilities despite the difficult situation during the Covid-19 pandemic. This study also find that state-owned banks have disclosed more sustainability information than private banks, both in total and in each dimension. Future studies can investigate further whether this is due to the opportunistic motives or because of stakeholder pressures using more in-depth studies such as interviews with related parties. Future studies can also take the post Covid-19 periods to know whether the similar disclosure patterns hold after a crisis condition.

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References

[1] Uyar A, Kuzey C, Kilic M. Testing the spillover effects of sustainability reporting: Evidence from the public sector. International Journal of Public Administration; 2021;44(3):231–240. https://doi.org/10.1080/01900692.2019.1677711

[2] S. Imperatives. Report of the world commission on environment and development: Our common future. United Nations (UN); 1987;10:1-300.

[3] Matuszak L, Różańska E, Macuda M. The impact of corporate governance characteristics on banks' corporate social responsibility disclosure. Journal of Accounting in Emerging Economies. 2019;9(1):75-102.

[4] Bae SM, Masud M, Kaium A, Kim JD. A cross-country investigation of corporate governance and corporate sustainability disclosure: A signaling theory perspective. Sustainability. 2018;10(8):1-16

[5] Goodell JW. COVID-19 and finance: Agendas for future research. Finance Research Letters. 2020;35;1-5

[6] Kirk CP, Rifkin LS. I'll trade you diamonds for toilet paper: Consumer reacting, coping and adapting behaviors in the COVID-19 pandemic. Journal of Business Research. 2020;117:124–131.

[7] Crovini C, Schaper S, Simoni L. Dynamic accountability and the role of risk reporting during a global pandemic. Accounting, Auditing & Accountability Journal. 2021.

[8] Folger-Laronde Z, Pashang S, Feor L, ElAlfy A. ESG ratings and financial performance of exchange-traded funds during the COVID-19 pandemic. Journal of Sustainable Finance & Investment; 2020:12(2);1-7.

[9] Adams CA, Abhayawansa S. Connecting the COVID-19 pandemic, environmental, social and governance (ESG) investing and calls for 'harmonisation' of sustainability reporting. Critical Perspectives on Accounting; 2021:82(1);102309;1-13.

[10] García-Sánchez IM, García-Sánchez A. Corporate social responsibility during COVID-19 pandemic. Journal of Open Innovation: Technology, Market, and Complexity. 2020;6(4):126;1-21

[11] Obrenovic B, Du J, Godinic D, Tsoy D, Khan MAS, Jakhongirov I. Sustaining enterprise operations and productivity during the COVID-19 pandemic: "Enterprise Effectiveness and Sustainability Model". Sustainability. 2020;12(15):5981;1-27;

[12] Nicolo G, Zanellato G, Tiron-Tudor A. Integrated reporting and European state-owned enterprises: A disclosure analysis pre and post 2014/95/EU. Sustainability 2020;12(5):1908;1-17.

[13] Kao EH, Yeh C-C, Wang L-H, Fung HG. The relationship between CSR and performance: Evidence in China. Pacific-Basin Finance Journal; 2019;51:155–170.

[14] Boros A, Fogarassy C. Relationship between corporate sustainability and compliance with state-owned enterprises in Central-Europe: A case study from Hungary. Sustainability. 2019;11(20):5653;1-23.

[15] Hoque N, Mowla M, Uddin MS, Mamun A, Uddin MR. Green banking practices in Bangladesh: A critical investigation. International Journal of Economics and Finance. 2019;11:58-68.

[16] Orazalin N. Corporate governance and corporate social responsibility (CSR) disclosure in an emerging economy: Evidence from commercial banks of Kazakhstan. Corporate Governance. 2019;19(3):490-507.