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Analysis the Impact of Covid-19 on Green Accounting and Its Implications on Profitability

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Abstract

Purposes: This study investigates the impact of the COVID-19 pandemic on the adoption of green accounting and its consequences for profitability in the consumer goods industry listed on the Indonesia Stock Exchange from 2018 to 2022.

Methods: This study utilizes panel data regression analysis conducted with EViews 13 software. The COVID-19 variable is examined both before and during the epidemic. Green accounting measures environmental performance and disclosure, whereas ROA represents profitability. Purposive sampling chose 21 companies that met the given criteria, yielding 86 observations.

Findings: The study shows that COVID-19 impacts environmental performance and transparency but has no meaningful impact on profitability. Furthermore, neither environmental performance nor environmental disclosure affects profitability. These results suggest that companies recognize the importance of integrating environmental performance into their operations, including waste management and the efficient use of natural resources, even though these efforts are not directly linked to profitability. This awareness enables companies to anticipate and mitigate the impacts of the pandemic. Furthermore, public ownership, as a control variable, does not significantly influence environmental performance, environmental disclosure, or profitability.

Novelty: This study uses COVID-19 variables based on variants according to the research period, namely the Delta variant, the Alpha variant, and the Omicron variant. There has never been a similar study that includes COVID-19 data divided into COVID-19 variants. The next difference is that the Performance and Environmental Disclosure variables function as both Y variables and X variables (intervening). In addition, this study also uses a control variable, namely public ownership.

Keywords*:* COVID-19, Environmental Disclosure, Environmental Performance, Green Accounting.

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INTRODUCTION

The COVID-19 pandemic has emerged as one of the most severe global disasters in contemporary history, affecting not only public health but also the economic and business landscape. Since its onset in early 2020, the pandemic has forced companies across various sectors to adapt rapidly to unprecedented challenges, including supply chain disruptions, shifts

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in consumer behavior, and heightened scrutiny of corporate sustainability practices. In particular, the consumer goods industry has been uniquely positioned at the intersection of these changes due to its role in providing essential products during the crisis. The pandemic has not only reshaped operational priorities but also heightened the emphasis on corporate responsibility and sustainability, placing green accounting practices under more significant focus.

Green accounting incorporates environmental costs and benefits into financial reporting, providing a more comprehensive assessment of an organization's economic activities. The concept, also referred to as environmental accounting or green/environmental accounting, began to gain traction in Europe during the 1970s (Riadi, 2022). As businesses navigate the pandemic's disruptions, environmental performance and disclosure practices have become critical tools for demonstrating accountability to stakeholders and aligning with societal expectations. Over the years, the majority of companies have progressively enhanced both the quality and extent of their environmental disclosures (Maama & Appiah, 2019).

Environmental performance reflects a company's efforts to minimize ecological impact, while environmental disclosure enhances transparency regarding these efforts. These practices, guided by principles of legitimacy and stakeholder theories, are instrumental in fostering trust and ensuring business continuity. Implementation of comprehensive, environmentally friendly innovations will enable the business world to reduce production costs and end the impact of the life cycle of products, processes, services, and organizational innovation on the environment (Khan & Johl, 2019). Despite their growing importance, the extent to which these green accounting elements influence profitability, particularly during a crisis like COVID-19, remains insufficiently explored.

Profitability, as measured by essential measures like Return on Assets (ROA), is critical for guaranteeing business sustainability and growth. However, the relationship between green accounting practices and profitability is complex and challenging to establish. Problems that arise between economic practitioners carrying out activities will have an impact on the environment, and individuals will ultimately bear the consequences. It can only be resolved by implementing green accounting (Pratama & Rohmawati, 2018). Susanti et al. (2023) stated that mining companies in Indonesia obtain financial benefits from Green Accounting.

Previous research has had conflicting results, with some studies indicating a beneficial relationship between environmental practices and financial performance (Chasbiandani et al., 2019; Khan & Gupta, 2023; Sumiati et al., 2022; Jain & Sharma, 2023; Yenidoğan et al., 2021; Tjoa & Patricia, 2022; Aydoğmuş et al., 2022; Earnhart, 2018; De Mendonca and Zhou, 2019; Agyemang et al., 2023; Naseer et al., 2023). On the other hand, other researches report no significant effects of environmental practices on financial performance, including research by Ningtyas and Triyanto (2019), Angelina and Nursasi (2023), and Evelyn et al. (2022). Environmental disclosure is also an element of green accounting that can influence a company's profitability. It is proven by the research results of Yin et al. (2019), Ningtyas and Triyanto (2019), and Monteiro et al. (2023). Different results were expressed by Lestari and Zulaikha (2021) and Angelina and Nursasi (2023), who stated that environmental disclosure had no impact on the company's level of profitability.

The rapid global spread of COVID-19 since 2019 has precipitated a widespread crisis, prompting research into its multifaceted impacts, particularly concerning the interplay between environmental responsibility and profitability. Guérin and Suntheim (2021) suggest that the economic downturn resulting from the pandemic may constrain firms' capacity to implement environmental and social programs. Furthermore, declining financial performance, especially within the energy sector, may incentivize companies to abdicate environmental responsibility (Heffron et al., 2021).

Studies examining the relationship between COVID-19 and environmental performance or disclosure have yielded varied results. Verina and Rohman (2024), focusing on the banking sector, found that environmental disclosure had a non-significant positive effect on return on assets (ROA) before the pandemic but a significant positive effect during the pandemic. Similarly,

Indrawati and Devi (2022) observed a substantial difference in environmental disclosure levels between the pre-COVID-19 and COVID-19 periods. Specifically, they noted an increase in the average value of environmental performance disclosure from 2.76785 before the pandemic to 3.21499 during the pandemic, suggesting a positive influence of COVID-19 on green accounting practices.

Wahyuningrum et al. (2024) examined environmental disclosure practices within the mining and manufacturing sectors from 2020 to 2022, a period spanning the pandemic and its immediate aftermath. Their findings suggested that environmental disclosure is growing, from 53.2% in 2020 to 60.8% in 2022. While the energy, industrial, and health sectors boosted their disclosure, the basic materials and cyclical consumer sectors declined. The authors suggest that the COVID-19 pandemic, by potentially necessitating operating cost reductions amidst financial pressures, may have influenced corporate environmental disclosure behaviors.

The relationship between environmental performance, environmental disclosure, and profitability may depend on specific events, like the COVID-19 epidemic. The pandemic's negative influence on bank profits, particularly in its early phases, has been recorded (Augeraud-Véron & Boungou, 2023). Several studies have provided evidence of this negative association, including research by Yuen et al. (2022), Qadri et al. (2023), Haider and Mohammad (2022), and Omaliko et al. (2021). However, contrasting findings have also emerged, with Sutrisno et al. (2020) reporting no significant impact of the COVID-19 pandemic on return on assets (ROA).

The COVID-19 pandemic has had complex and multifaceted effects on the environment. While Talukdar et al. (2024) identified both positive and negative environmental consequences, they suggest that the positive impacts are likely to be transient, whereas the negative impacts may be more enduring. This observation is echoed by Ang et al. (2023), who noted a disproportionate focus on the positive environmental effects of the pandemic. Research on the pandemic's influence on firm performance has also yielded mixed results. Al Amosh and Khatib (2023) concluded that COVID-19 positively and significantly influenced ESG performance. Elmarzouky et al. (2021) discovered a strong positive correlation between COVID-19 disclosure and firm performance disclosure in annual reports. However, Azizah (2022) found no substantial variation in average environmental expenses between the pre-COVID-19 period (2019) and the COVID-19 period (2020), indicating that the pandemic had no visible impact on green accounting methods in their study.

Moreover, the unique dynamics introduced by COVID-19—such as increased demand for certain consumer goods and shifts in public priorities—further complicate these relationships. It raises critical questions about whether the pandemic has influenced the effectiveness of environmental performance and disclosure in driving profitability.

A review of the existing literature reveals several gaps. First, while studies have examined the general impact of green accounting on profitability, few have explored this relationship in the context of a global crisis like COVID-19. Second, there is limited research incorporating the various COVID-19 phases—characterized by different virus variants (Alpha, Delta, and Omicron)—to capture the pandemic's evolving effects. Third, the dual role of environmental performance and disclosure as both dependent and independent variables has rarely been investigated, particularly in their interplay with profitability. This study aims to fill these gaps by examining the impact of the COVID-19 epidemic on green accounting practices and their consequent effects on profitability in consumer goods businesses.

This study specifically focuses on the consumer goods sector, and this research contributes to the expanding literature on sustainability practices within emerging economies. The novelty of the study lies in its integration of COVID-19 phases, its dual-role variable framework, and the inclusion of a control variable (public ownership) to enhance analytical rigor. Additionally, the study applies legitimacy and stakeholder theories to provide a robust theoretical foundation for interpreting the findings. These contributions not only fill existing research gaps but also offer practical insights for policymakers and industry leaders navigating the post-pandemic recovery.

This study draws upon two prominent theoretical frameworks: Legitimacy Theory and Stakeholder Theory. Legitimacy Theory, initially proposed by Dowling and Pfeffer (1975), posits that organizational management systems are oriented towards aligning with the expectations of society, including government and individual stakeholders. This theory emphasizes the dynamic interplay between organizations and their broader social context. Companies have a social contract with society. Thus, the company carries out its activities with the values of justice and legitimizes its actions as a response to interest groups (Hidayat et al., 2018). Legitimacy theory with the variables in this research is shown in one of the company's efforts to adapt to the values and norms of society, which is based on a social contract where the context of using the same economic resources is by disclosing environmental information and environmental performance in its financial reports. With this openness, stakeholders and shareholders can learn about company activities. Information related to environmental performance and disclosure is also one way companies gain legitimacy from society and the government. The Company's primary goal of generating probability can be achieved by gaining legitimacy from the government and society.

The Stanford Research Institute (SRI) first established stakeholder theory in 1963, and it has since been a cornerstone of business ethics and organizational management (Mahajan et al., 2023). This theory's key pillar is the identification of stakeholders with a vested interest in and responsibility for the organization. In the context of this study, the stakeholder theory implies that stakeholders gain from understanding firm operations before making investment decisions. Furthermore, the disclosure of social and environmental reports can be interpreted as a sign of the company's dedication to preserving connections with its stakeholders and respect for fair treatment. Stakeholder appraisal of a company's environmental performance and disclosure policies can have a substantial impact on their purchasing decisions, ultimately affecting the company's profitability.

Indonesia's COVID-19 pandemic began on March 2nd, 2020, with the revelation of the first verified cases. By 2021, the country has seen waves of infection from the Alpha, Delta, and Omicron strains. The Alpha variation wave peaked on January 30th, 2020, with 14,528 daily instances, while the Delta variant wave peaked on July 15th, 2021, with 56,757 extra cases (Nurita, 2022). Siti Nadia Tarmidzi, spokesperson for COVID-19 immunization at the Ministry of Health, said that the number of Omicron variant cases had increased to 92 by Tuesday, January 4th, 2022. Thus, the total number of cases of the Omicron variant in Indonesia reached 254. Of the total cases of the Omicron variant, according to Siti Nadia Tarmidzi, 239 cases came from international travelers or are called imported cases. There were 15 cases of local transmission were 15.

Legitimacy theory posits that an organization's continued existence is contingent upon the public perception that its operations align with prevailing societal values. In any condition, the Company must still be able to side with the community. One of these conditions is the COVID-19 outbreak. Participation in the Community is manifested in the form of environmental performance.

According to the stakeholder theory, a firm is more than just a self-interested entity; it also has a responsibility to offer advantages to a variety of stakeholders. Creditors, suppliers, shareholders, consumers, the community, government, and other relevant parties are examples of stakeholders (Binus University, 2021). One of the advantages offered to stakeholders is improved environmental performance.

Research that supports the influence of COVID-19 on environmental performance is research from Talukdar et al. (2024), Ang et al. (2023), Al Amosh and Khatib (2023), Indrawati and Devi (2022), Wahyuningrum et al. (2024), Guérin and Suntheim (2021), and Heffron et al. (2021). COVID-19 affects corporate behavior. Business activities are hampered by the Alpha, Delta, and Omicron variants, so companies are likely to tend to maintain their sustainability. One of the factors in determining the sustainability of a company is through the company's reputation in its concern for the environment. The company's concern for the environment is at stake in times of crisis. Companies that continue to run Social Responsibility programs during a crisis will provide

added value to the community more than in normal times. Therefore, paying attention to the environment during a crisis will maximize the company's market value and want to increase trust and transparency. This observation leads to the development of the following hypotheses:

H_1: COVID-19 has a positive effect on environmental performance

Legitimacy theory suggests that companies must ensure their activities and performance are perceived as legitimate by the public. Legitimacy, in this context, represents a management system oriented towards aligning with the interests of various stakeholders, including the community, government, individuals, and community groups (Amri, 2024). Therefore, a company's operations must conform to societal expectations. This alignment is often reflected in a company's commitment to environmental concerns, demonstrated through environmental disclosure.

The stakeholder theory emphasizes the crucial role of stakeholders in a company's long-term sustainability. Given that stakeholders control resources vital for a company's survival, maintaining positive relationships with them by addressing their needs and desires is essential. Environmental disclosure serves as a key mechanism for fostering these relationships and protecting stakeholder interests (Binus University, 2021). It provides valuable information that can contribute to the company's and stakeholder's progress toward sustainable development goals.

Several studies support the influence of COVID-19 on environmental disclosure, including research by Talukdar et al. (2024), Ang et al. (2023), Al Amosh and Khatib (2023), Indrawati and Devi (2022), Wahyuningrum et al. (2024), Guérin and Suntheim (2021), and Heffron et al. (2021). The ongoing efforts to maintain stakeholder relationships and protect their interests, including through environmental disclosure, are likely to persist even during challenging periods, such as the COVID-19 pandemic. Based on the foregoing discussion, the following hypothesis is proposed:

H_2: COVID-19 has a positive on effect environmental disclosure

Environmental performance can assist in increasing corporate profitability. According to legitimacy theory, which emphasizes management's orientation towards stakeholder interests (including the community, government, and individuals), excellent environmental performance indicates a company's commitment to these stakeholders. The main concept of legitimacy theory is that an organization's prolonged existence is dependent on public opinion that it complies with current societal standards. By minimizing environmental damage, companies can cultivate a positive image, potentially leading to increased sales and attracting investor interest due to enhanced profitability.

According to the stakeholder theory, stakeholders are divided into two categories: internal stakeholders (workers, managers, and shareholders) and external stakeholders (community, government, suppliers, etc.). These stakeholders will support the success of a company. One of the aspects of this success is reflected in environmental performance. Stakeholder support is crucial for ensuring a company's long-term sustainability, which is often reflected in its profitability. Several researchers, such as Tjoa and Patricia (2022), Aydoğmuş et al. (2022), Earnhart (2018), De Mendonca and Zhou (2019), Agyemang et al. (2023), and Naseer et al. (2023) have shown that environmental performance has an impact on profitability. Based on these results, the following hypothesis is proposed:

H_3: There is positive effect of environmental performance on profitability

Environmental disclosure represents a company's commitment to its stakeholders. Legitimacy theory suggests that companies are motivated to engage in environmental responsibility due to the need to maintain legitimacy with these stakeholders. By having the company make environmental disclosures, the company will gain legitimacy. By gaining legitimacy from interest

stakeholders, the Company can maintain the sustainability of its business. This sustainability is reflected in the level of profitability.

The stakeholder theory posits that organizations strive to generate a range of benefits for their diverse stakeholder groups (Mahajan et al., 2023). Disclosure in the company's financial statements can help stakeholders study and understand the company's activities before deciding to invest in the company. The absence of specific accounting standards that regulate environmental accounting has caused many companies to disclose information related to the environment differently. It also makes environmental disclosures only voluntary disclosures. Apart from that, it will also improve the Company's image while increasing stakeholder perceptions, thereby further increasing shareholder value. As a result, these factors will contribute to increased profitability. Yin et al. (2019), Ningtyas and Triyanto (2019), and Monteiro et al. (2023) demonstrate that environmental disclosure influences profitability. Based on this, we can draw the following hypothesis:

H_4: There is positive effect of environmental disclosure on profitability

The impact of COVID-19 on companies varies. Most companies experience a decline in sales. On the other hand, companies must continue to pay their operational costs. It will affect the company's profits. Company assets, especially production facilities, are idle, which will have an impact on the level of ROA. Profit performance measured in terms of return on investment is one of the ratios used to calculate profitability. With decreasing profits, followed by unproductive assets, the company's profitability will also decrease. Several studies have found that COVID-19 has an impact on profitability, including those conducted by Augeraud-Véron & Boungou (2023), Yuen et al. (2022), Qadri et al. (2023), Haider and Mohammad (2022), and Omaliko et al. (2021). Based on these findings, the following hypotheses are proposed:

H_5: COVID-19 has negative effects on profitability

Based on the preceding discussion, the conceptual framework can be ilustrated in the figure 1 below:

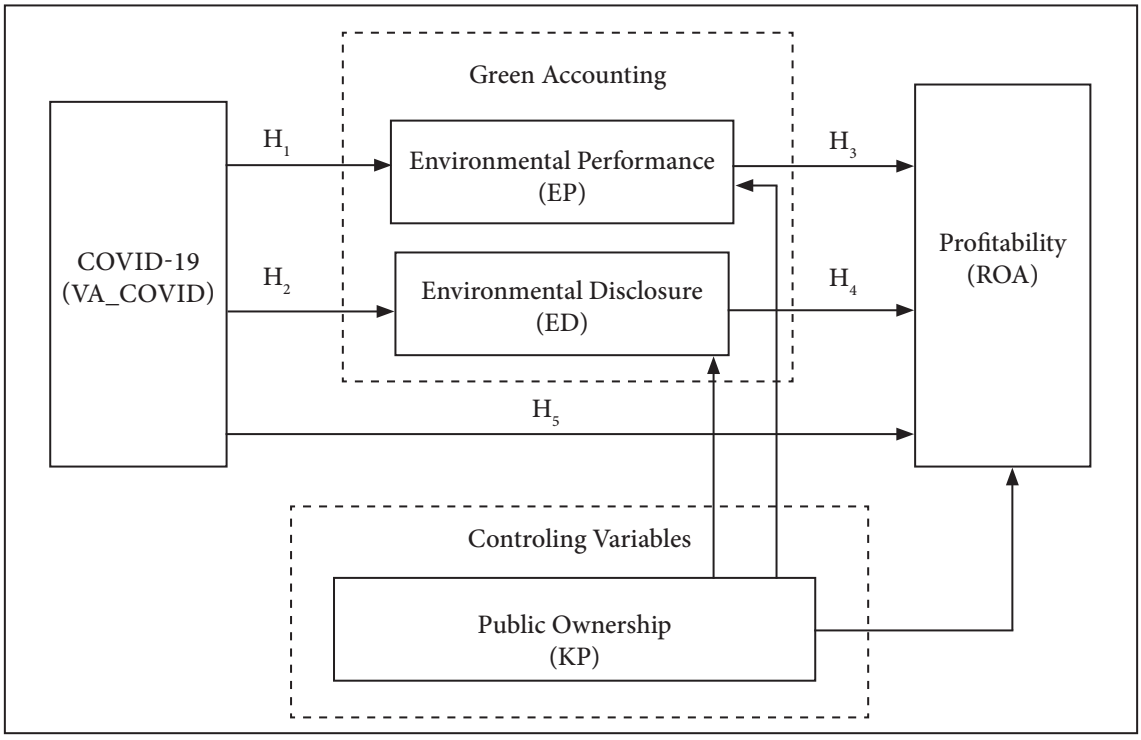

Figure 1. Research Model

METHODS

This study used a quantitative research approach, including panel data regression analysis, to analyze the influence of COVID-19 on green accounting and its implications for profitability in consumer products companies listed on the Indonesia Stock Exchange (IDX) from 2018 to 2022. The selection of the consumer goods sub-sector was based on the fact that companies in this industry manufacture products directly intended for end consumers, including food, beverages, clothing, and personal care items. Given the circumstances of the COVID-19 pandemic, these products were expected to experience significant disruptions in production, marketing, and distribution. Panel data regression analysis was carried out with EViews 13 software, which allowed for the integration of cross-sectional and time-series data.

The variables in this study included environmental performance (EP) and environmental disclosure (ED) as proxies for green accounting, with profitability measured by Return on Assets (ROA). COVID-19 was treated as an independent variable, measured through a dummy variable reflecting the pre-pandemic period (2017–2019) and the various pandemic phases characterized by the Alpha (2020), Delta (2021), and Omicron (2022) variants.

The sample consisted of 21 companies selected through purposive sampling based on criteria such as the availability of financial and sustainability reports and participation in the PROPER environmental rating system. This selection process yielded 105 observations, which were reduced to 86 after addressing data outliers. Several preliminary tests were run to improve the robustness of the regression analysis, including the Chow test, Lagrange multiplier test, and Hausman test, which demonstrated that the Random Effects Model (REM) was the best estimation method. Furthermore, traditional assumption tests such as normality, multicollinearity, and heteroscedasticity were used to confirm the regression models' validity and reliability.

Environmental performance was quantified using the PROPER rating system issued by Indonesia's Ministry of Environment, assigning scores based on compliance with environmental management standards. Environmental disclosure was measured through the Corporate Social Disclosure Index (CSDI), which captures the extent of nature-related information presented in annual reports. Indicators of environmental performance are divided into five groups, as listed in Table 1. Profitability (ROA) was calculated by dividing net profit by total assets. The selection of ROA as a measure of profitability is because, in the COVID-19 conditions, the Company is utilizing its asset resources as much as possible to maintain its profit. Public ownership is the proportion of share ownership at the end of the year held by the general public (not significant institutions), measured by dividing public ownership by Total Share Ownership. The COVID-19 variable is based on the COVID-19 variant, namely before the pandemic (there were no COVID-19 variants), namely 2017, 2018, and 2019; the Alpha variant, namely 2020—the Delta variant in 2021; the Omicron variant in 2022. COVID-19 was measured using dummy variables; namely, before COVID-19, the score was 0; during the Alpha variant, the score was 1, while the Delta variant scored 2, and the Omicron variant scored 3.

Table 1. Proper Rating Criteria

Color	Definition	Score
Gold	Consistently proven environmental excellence in production operations.	5
Green	More environmental management has been done than is needed by regulations.	4
Blue	Has completed the required environmental management activities under the regulations.	3
Red	The necessary provisions do not cover environmental management efforts.	2
Black	Given to individuals in control of businesses and/or activities who intentionally conduct acts or omissions that create pollution and/or damage to the environment.	1

(Source: Ministry of the Environment)

Data for this study were gathered from the Indonesia Stock Exchange's official website (www.idx.co.id) in the form of annual reports, sustainability reports, and financial statements. Furthermore, pertinent information was gathered from the official websites of the sampled companies. The data for the Environmental Performance variable were collected from the Ministry of Environment's PROPER reports, which are available at www.menlhk.go.id.

The data analysis process began with model selection, which included: (a) the Chow test to determine whether the Common Effect Model (CEM) or Fixed Effect Model (FEM) was more appropriate; (b) the Lagrange Multiplier test to compare the Common Effect Model (CEM) and the Random Effect Model (REM); and (c) the Hausman test to determine whether the Fixed Effect Model (FEM) or the Random Effect Model (REM) was the best fit.

The selected model determined the classical assumption tests that were used. If the study determined that CEM or FEM was the best model, the conventional assumption tests were the heteroscedasticity and multicollinearity tests. If REM was chosen, the normality and multicollinearity tests were conducted. Multiple linear regression was used to test hypotheses using panel data. The data was processed using EViews 13, SPSS version 26 (for outlier detection), and Microsoft Excel.

RESULTS AND DISCUSSIONS

Feasibility Test of Panel Data Regression Model Model Selection

Two tests were used in the model selection process: the Chow test and the Lagrange Multiplier test, which both consistently indicated the same model, the Random Effects Model. The outcomes of this model selection are shown in Table 2.

Table 2. Recapitulation of Model Selection Results

Test	Prob.	Selected models
Chow Test	0.360	REM
Lagrange Test	0.000	REM

Source: The Processed Primary Data (2024)

Normality test

The normality test on 105 observations produced a probability value larger than 0.05, suggesting that the data were not normally distributed. As a result, an outlier test was run, which identified 19 outliers. These outliers were then deleted, lowering the final sample to 86 observations. Figure 2 shows the results of the normality test on the modified dataset. As illustrated in Figure 2, the probability value of 0.096002 is above the 0.05 barrier, indicating that the data is now regularly distributed.

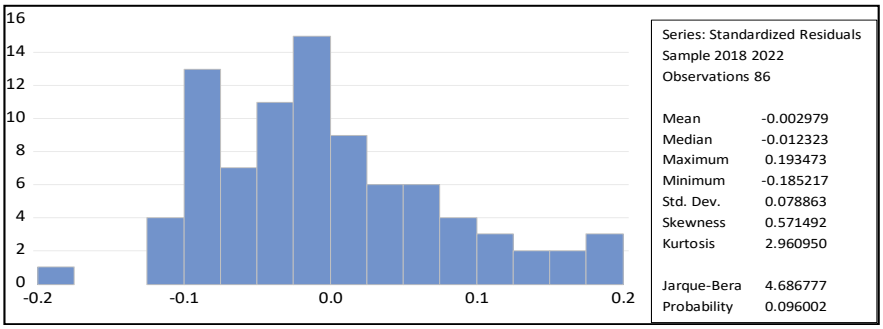

Figure 2. Normality Test Results
Source: The Processed Primary Data (2024)

Multicollinearity Test

The multicollinearity test was conducted to evaluate whether a high correlation exists among the independent variables in the regression model, as excessive correlation could distort the estimation of regression coefficients and compromise result interpretation. Multicollinearity is typically identified by examining correlation coefficients among independent variables, with a threshold of 0.8 considered indicative of multicollinearity.

The test results, as presented in Table 3, indicate that the correlation coefficients among the independent variables—environmental disclosure (ED), environmental performance (EP), public ownership (KP), and the COVID-19 variable (VAR_COVID)—all fall below the 0.8 thresholds. The highest correlation observed was 0.505 between ED and VAR_COVID, while other correlations were notably lower, such as 0.236 between EP and VAR_COVID and −0.315 between EP and KP. These findings suggest that the independent variables exhibit low to moderate correlations, confirming that multicollinearity is not a concern in this study.

The absence of multicollinearity ensures the stability of the regression coefficients, thereby enhancing the reliability of hypothesis testing results. It allows for a more precise interpretation of the relationships among variables, including the impact of COVID-19 on environmental performance, environmental disclosure, and profitability. Furthermore, the low correlation between variables supports the robustness of the selected model, as it indicates that each independent variable contributes to explaining the dependent variable.

Finally, the multicollinearity test demonstrates that the regression model used in this study is well-specified, with independent variables that do not show significant levels of correlation. It supports the study's conclusions, particularly the role of green accounting and the impact of COVID-19 on profitability.

Table 3 . Multicollinearity Test Results

	ED	EP	KP	VAR_COVID
ED	1	0.083	0.122	0.505
EP	0.083	1	-0.315	0.236
KP	0.122	-0.315	1	-0.082
VAR_COVID	0.505	0.236	-0.082	1

Source: The Processed Primary Data (2024)

Hypothesis testing

Based on the results of hypothesis testing, the following interpretations can be drawn. First, COVID-19 has a positive effect on environmental performance (EP). The coefficient of COVID-19 (VAR_COVID) on EP is 0.12674, with a t-statistic of 2.120707 and a p-value of 0.0369, which is below the 0.05 significance level. It indicates a statistically significant positive relationship, therefore supporting hypothesis H1. Second, COVID-19 has a positive effect on environmental disclosure (ED). The result hypothesis testing in Table 4 shows the coefficient of COVID-19 (VAR_COVID) on ED is 0.044586, with a t-statistic of 7.494011 and a p-value of 0.0000, which is below the 0.05 significance level. Hence, hypothesis 2 is supported. The

Table 4. Panel Data Regression Results

H	Variables	Coefficient	Std. Error	t-Statistic	Prob.	Results
H1	VAR_COVID → EP	0.126	0.059	2.120	0.036	Supported
H2	VAR_COVID → ED	0.044	0.005	7.494	0.000	Supported
H3	EP → ROA	-0.002	0.008	-0.330	0.741	Not supported
H4	ED → ROA	0.0767	0.064	1.189	0.237	Not supported
H5	VAR_COVID → ROA	0.005	0.004	1.179	0.241	Not supported

Source: The Processed Primary Data (2024)

findings suggest that the COVID-19 pandemic may have prompted companies to improve their environmental performance, possibly as a response to increased stakeholder scrutiny or changes in operational practices during the pandemic.

The third result shows that environmental performance does not affect profitability. The coefficient of environmental performance (EP) on return on assets (ROA) is -0.00268 with a t-statistic of -0.33062 and a probability value (p-value) of 0.7418, which is greater than the 0.05 significance level. It indicates that the relationship between environmental performance and profitability is not statistically significant. Therefore, hypothesis H3 is not supported. This finding suggests that improved environmental performance, as measured in this study, does not directly enhance financial profitability in consumer goods sector companies during the period analyzed.

Fourth, the results of environmental disclosure show that they do not affect profitability. The coefficient of environmental disclosure (ED) on ROA is 0.076764 with a t-statistic of 1.189357 and a p-value of 0.2377, which exceeds the 0.05 threshold. Thus, hypothesis H4 is not supported. These results imply that the extent of environmental information disclosure does not have a statistically significant effect on the profitability of companies, indicating a potential gap between disclosure practices and financial performance in this sector.

Finally, profitability is unaffected by COVID-19. The coefficient of COVID-19 (VAR_COVID) on ROA is 0.005089, with a t-statistic of 1.179651 and a p-value of 0.2415, which is greater than the 0.05 significance level. Thus, hypothesis H5 is not supported. It implies that the pandemic, despite its broad economic consequences, had no statistically significant direct influence on the profitability of consumer products companies throughout the study period.

These findings emphasize the difficulties of the linkages between environmental performance, disclosure, and profitability, especially in the context of the COVID-19 epidemic. While the epidemic appears to have prompted improvements in environmental policies and transparency, these changes did not result in rapid profit increases for businesses. Future studies should look into the long-term ramifications of these findings, as well as the potential moderating effects of industry-specific variables or external economic conditions.

Table 5. Panel Data Regression Results by Including Control Variables

H	Variables	Coefficient	Std. Error	t-Statistic	Prob.	Results
H1	VAR_COVID → EP	0.123	0.059	2.065	0.042	Supported
H2	VAR_COVID → ED	0.044	0.005	7.521	0.000	Supported
H3	EP → ROA	-0.003	0.008	-0.396	0.693	Not supported
H4	ED → ROA	0.039	0.084	0.463	0.644	Not supported
H5	VAR_COVID → ROA	0.003	0.005	0.652	0.515	Not supported
	KP → ROA	0.000	0.001	0.306	0.760	Not supported
	KP → EP	-0.018	0.010	-1.749	0.083	Not supported
	KP → ED	0.001	0.001	0.892	0.374	Not supported

Source: The Processed Primary Data (2024)

Table 5 shows that by entering the public ownership control variable, the results of the regression do not change. None of the variables affect ROA, and COVID-19 affects EP and ED. For the public ownership variable, it does not affect EP, ED, or ROA.

Impact of COVID-19 on Environmental Performance

COVID-19 has had a significant impact on environmental performance, as the pandemic is closely linked to environmental and public health concerns. COVID-19, caused by the SARS-CoV-2 virus, belongs to the Coronavirus family, which primarily affects the respiratory system. Infection with this virus can lead to mild to moderate respiratory illnesses, such as influenza, or more severe conditions, including pneumonia. Initially believed to be transmitted from

animals to humans, it was later confirmed that human-to-human transmission also occurs, with environmental factors, particularly hygiene and cleanliness, playing a crucial role. The findings of this study suggest that environmental performance improved during and after the COVID-19 pandemic.

These results align with previous research conducted by Indrawati and Devi (2022), Wahyuningrum et al. (2024), Guérin and Suntheim (2021), and Heffron et al. (2021), which highlight the positive influence of COVID-19 on environmental performance. However, the findings contradict those of Azizah (2022), who concluded that COVID-19 had no significant impact on green accounting.

From a theoretical perspective, this study provides empirical support for legitimacy theory in explaining the relationship between COVID-19 and environmental performance and disclosure. The results demonstrate that even in times of crisis, such as the COVID-19 pandemic, environmental concerns remain a critical aspect of corporate responsibility. Companies continue to focus on environmental performance to maintain public recognition and legitimacy. As noted by Amri (2024), corporate legitimacy is a strategic factor essential for long-term business sustainability.

Furthermore, this study is consistent with stakeholder theory, a fundamental framework in business ethics and organizational management. Companies uphold ethical responsibilities by addressing environmental issues even in challenging conditions. Through sustainability and annual reports, organizations communicate their commitment to environmental responsibility, fostering public acceptance. It, in turn, enhances corporate value, potentially leading to increased profitability, which ultimately benefits shareholders and investors.

The practical implications of the results of this study are that in any condition (including COVID-19), the company must continue to pay attention to environmental issues, which are reflected in environmental performance. The community will give a good assessment to a company that has good performance, even in abnormal conditions. The government should reward companies that perform well in the environment.

Impact of COVID-19 on Environmental Disclosure

The outbreak of COVID-19 heightened public awareness regarding environmental cleanliness and personal hygiene, prompting companies to place greater emphasis on environmental concerns. This increased attention was reflected in enhanced environmental information disclosure, as firms sought to maintain public recognition and legitimacy, consistent with legitimacy theory. The findings of this study indicate a significant positive relationship between COVID-19 and environmental disclosure, demonstrating that during the pandemic and in the post-pandemic period, environmental disclosure has increased.

These findings align with prior research by Indrawati and Devi (2022), Wahyuningrum et al. (2024), Guérin and Suntheim (2021), and Heffron et al. (2021), which also observed a positive link between COVID-19 and corporate environmental disclosure. However, these results contradict the findings of Azizah (2022), who concluded that COVID-19 had no impact on green accounting.

From a theoretical perspective, this study reinforces the applicability of legitimacy theory in explaining corporate environmental disclosure. Public legitimacy is a crucial factor in a company's long-term development, as it contributes to: first, Enhanced trust and reputation – Legitimacy fosters public trust and a positive corporate reputation, attracting customers, business partners, and investors. Second, Reduced regulatory barriers – Companies perceived as legitimate are less likely to face regulatory obstacles, as stakeholders view them as ethical and responsible entities. Third, Improved resource accessibility – Legitimacy facilitates access to critical resources such as capital, skilled talent, and technology, as public support tends to be stronger for companies perceived as responsible. Fourth, Competitive advantage – Companies with strong legitimacy hold a competitive edge, as customers are more inclined to support organizations with a responsible

environmental track record. Last, Financial stability—Legitimacy can enhance a company's financial resilience by attracting investors and fostering trust among lenders.

Furthermore, this study is consistent with Stakeholder Theory, which emphasizes that a company's primary objective is to generate profits for capital owners. To achieve this, firms must consider, balance, and fulfill the expectations of all stakeholders, including those related to environmental concerns.

The findings highlight the necessity for companies to demonstrate their commitment to environmental responsibility, even during crises such as COVID-19. Public perception plays a crucial role in shaping corporate value, and firms that actively engage in environmental sustainability are likely to gain a more favorable reputation. However, government intervention is also essential in supporting corporate environmental awareness. Policies that provide incentives or awards to environmentally responsible companies would further encourage sustainable business practices.

The Effect of Environmental Performance on Profitability

The effect of environmental performance on profitability is negative but not significant. In legitimacy theory, companies with high environmental performance mean that they are on the side of the community and comply with government regulations, so they will be more enthusiastic in utilizing existing resources and trying to improve other performance, namely financial performance, one of which is profitability. In addition, the Company also tries to adapt to the values and norms of society based on a social contract where the context of utilizing the same economic resources is to inform its environmental performance. Based on stakeholder theory, when a company performs well in its environmental performance, it will be trusted by stakeholders. The company will get attention from the media and will improve the company's image. One way to improve this image is through high profitability.

However, in a disaster situation like COVID-19, the above does not apply. When COVID-19 occurred, consumer sector companies, especially those producing food that can be stored for a long time, experienced an increase in sales. It is because people tend to hoard food to prepare for the possibility of food shortages. People no longer pay attention to whether they buy from companies that have good environmental performance or not, as long as they have reserves of food to consume. It is what causes environmental performance not to affect profitability.

The findings of this study are consistent with the research conducted by Ningtyas and Triyanto (2019), Angelina & Nursasi (2021), and Angelina and Nursasi (2022), which concluded that environmental performance does not have a significant impact on profitability. However, these results contradict the studies of Tjoa and Patricia (2022), Aydoğmuş et al. (2022), Earnhart (2018), De Mendonca and Zhou (2019), Agyemang et al. (2023), and Naseer et al. (2023) which conclude that environmental performance has an impact on profitability.

The results of this study did not produce the same findings as several previous studies; this could be due to differences in research samples or differences in profitability measurement indicators. The industry of companies listed on the Stock Exchange varies significantly in terms of industry type, Assets, and environmental management policies so that they can produce varying results between industries. Therefore, the practical implication for further research is to use different indicators of profitability or environmental performance.

The theoretical implications of the results are not in line with the Legitimate theory. This study shows that there is no relationship between environmental performance and profitability. In the Legitimate theory, the main goal of the company to achieve profitability can be realized by securing legitimacy from both the government and the community from the Legitimate theory. The results of the study examining the effect of environmental performance on profitability showed a negative relationship, which also contradicts stakeholder theory. Companies are faced with a choice between the obligation to maintain their environmental performance and high profits. In the COVID-19 situation, to maintain good environmental performance, more asset resources

are needed, which will reduce profits. It is what causes the relationship between environmental performance and ROA to be negative. Based on stakeholder theory, when a company performs well in its environmental performance, the company will be trusted by stakeholders. Therefore, theoretical modifications are needed as implications for further research.

The practical implication of the results of the study examining the effect of environmental performance on profitability is that the Company is still obliged to fulfill environmental performance, even though it does not have a direct impact on profit. It is hoped that further research can use intervening variables, which bridge the effect of performance on profit, for example, social responsibility (CSR).

The Effect of Environmental Disclosure on Profitability

The effect of environmental disclosure on profitability is positive but not significant. The application of legitimacy theory is shown by the company's efforts to adapt to community values and norms based on social contracts in the context of equal utilization. These resources disclose environmental information in their financial statements. With environmental disclosure, the company sides with the community and complies with government regulations so that it will gain legitimacy. Gaining legitimacy means that the community and government's trust in the Company increases, which will encourage the Company to maintain the sustainability of its business. One form of business sustainability is profitability, which is always maintained. According to stakeholder theory, the benefits that a company can provide to stakeholders can be applied to disclosures in the company's financial statements. Stakeholder theory underscores the importance of organizational accountability extending beyond mere financial performance. According to this approach, firms voluntarily reveal information about their environmental, social, and intellectual performance that goes beyond legislative requirements to meet the expectations of both current and potential stakeholders. With stakeholder recognition, the Company will run efficiently to improve profits while maintaining environmental disclosure to gain stakeholder trust.

Just like environmental performance, environmental disclosure as described above does not apply during COVID-19, where public attention is focused on meeting the needs of consumer goods, especially durable ones, to anticipate food shortages. Environmental issues are neglected in the COVID-19 situation. People choose the products they will consume without looking at whether the company discloses environmental issues or not. This results in the profitability of consumer goods companies being ignored. Influenced by whether the environment is disclosed in the company's financial statements.

These findings are consistent with previous studies by Lestari and Zulaikha (2021) and Angelina & Nursasi (2021), which indicated that environmental disclosure has no substantial impact on profitability. These findings suggest that corporations' environmental concerns do not always convert into financial rewards, as evidenced by the lack of a clear association between environmental disclosure and profitability. As a result, this study does not give empirical support to legitimacy theory or stakeholder theory because the public does not appear to react positively to corporate environmental measures in a way that affects profitability. Conversely, the findings contradict those of Yin et al. (2019), Ningtyas and Triyanto (2019), and Monteiro et al. (2023), who found that environmental disclosure has a positive effect on return on assets (ROA), indicating that public responsiveness to environmental disclosure can enhance profitability. The divergence in results may be attributed to differences in industry sectors used as samples, variations in profitability indicators, and differences in the periods analyzed.

The theoretical implication of the study's findings is that in the COVID-19 disaster situation, when examining the influence of environmental disclosure on profitability, the legitimacy theory does not entirely apply, particularly in the consumer goods subsector. It is because the things produced are genuine products that the community requires; regardless of whether the corporation gains legitimacy or not, its products will continue to be purchased to deal with the possibility of shortage. This study's findings are also inconsistent with stakeholder theory. The

effect of environmental disclosure is a favorable relationship. It is possible because environmental disclosure does not necessitate the expenditure of significant asset resources.

The practical implications of the research findings on the influence of disclosure on profitability are that the Company is still required to meet environmental performance and disclosure standards, even if they have no direct impact on profit. It is intended that future studies will include intervening variables, such as social responsibility, to bridge the influence of environmental disclosure on profit.

The Effect of COVID 19 on ROA

The COVID-19 pandemic had no substantial effect on return on assets. The consumer goods sector, which supplies essential products to the public, remained operational during the crisis. However, the pandemic led to widespread restrictions on movement, with individuals being required to stay at home and limit outdoor activities. Additionally, the enforcement of strict Work-From-Home (WFH) policies further altered consumer behavior and market dynamics. Even though they did not leave the house, people still consumed food as before the pandemic, and many people even stocked up on food in their respective homes due to the issue that there would be a long-term food shortage. This situation allows consumer sector companies to continue to sell their goods to the public, even in larger quantities; as a result, profitability tends to increase. It prevents the pandemic from affecting the company's profitability. With the COVID-19 epidemic, the company's profitability has remained consistent, even growing.

According to Stakeholder Theory, a company's objective extends beyond merely generating profit; it must also consider, balance, and fulfill the expectations of all its stakeholders. It aligns with the findings of this study, which indicate that while COVID-19 had no significant effect on profitability in the consumer goods sub-sector, companies demonstrated a strong commitment to environmental concerns. From the perspective of Legitimacy Theory, these results suggest that even during the COVID-19 crisis, companies continued their efforts to gain public legitimacy. Although consumer behavior shifted towards online transactions during the pandemic, the continued demand for consumer goods ensured relatively stable sales levels, potentially even leading to an increase, thereby mitigating any negative impact on profitability.

This study's findings are congruent with those of Sutrisno et al. (2020), who found that COVID-19 did not affect ROA. However, they contradict the conclusions of Augeraud-Véron & Boungou (2023), Yuen et al. (2022), Qadri et al. (2023), Haider and Mohammad (2022), and Omaliko et al. (2021). These disparities may be due to variances in the characteristics of the companies studied across multiple research.

Furthermore, the findings align with the characteristics of the dataset, as both ROA, environmental performance (EP), and environmental disclosure (ED) exhibited an upward trend. It suggests that COVID-19, EP, and ED did not significantly influence profitability. Despite the challenges posed by the pandemic, the company's profitability, EP, and ED continued to improve, as illustrated in Figure 3, 4, and 5.

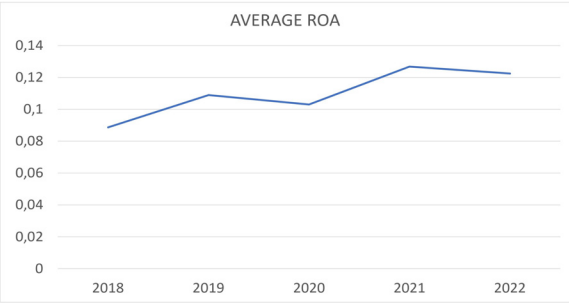

Figure 3. Average ROA
Source: The Processed Primary Data (2024)

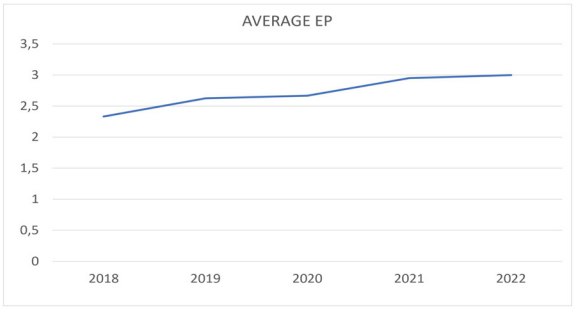

Figure 4. Average EP
Source: The Processed Primary Data (2024)

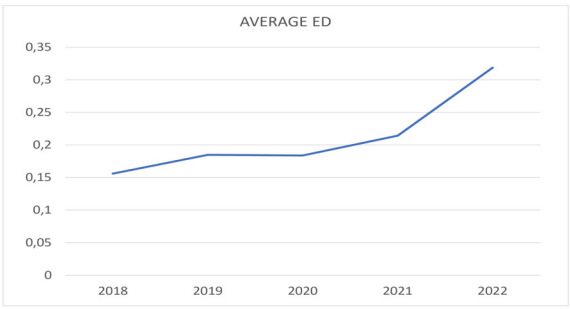

Figure 5. Average ED
Source: The Processed Primary Data (2024)

CONCLUSIONS

The results show that Green Accounting proxied by environmental performance and environmental disclosure does not affect profitability. COVID-19 affects Green Accounting but not profitability. This indicates that, despite the COVID-19 situation, consumer sector companies continue to exhibit high performance, both financially and environmentally. Consumer sector companies can survive and even be relatively stable during COVID-19. Although the pandemic has had a significant impact on environmental performance and disclosure, these aspects of green accounting do not have a direct impact on profitability, as evaluated by return on assets. In particular, environmental performance and environmental disclosure are positively affected by the pandemic, indicating that companies are increasing their sustainability and transparency efforts during this challenging period. However, these initiatives do not generate direct financial benefits, which likely reflects the lag between sustainability investments and their economic returns. The results imply that green accounting is something that companies must do. In any condition, companies continue to report their environmental performance to continue to gain legitimacy from society and meet ethical standards as environmentally responsible companies. These results underline the need for a long-term perspective when evaluating the financial implications of green accounting, especially in the context of external shocks such as COVID-19. The study's contributions are rooted in the integration of the pandemic phase, the dual-role variable framework for environmental performance and disclosure, and the application of legitimacy and stakeholder theories. Together, these elements enrich the literature on green accounting and offer valuable implications for industry practitioners and policymakers navigating the transition to sustainable business practices.

While this study provides valuable insights, several limitations should be noted. First, the analysis is limited to the consumer products industry sector, thus limiting its applicability to other industries with different characteristics and levels of environmental impact. Second, this study uses only two proxies for green accounting—environmental performance and environmental

disclosure—which may not accurately reflect the breadth of green accounting practices. Third, the use of secondary data from financial and sustainability reports may result in reporting bias, as companies may selectively release information to meet stakeholder expectations.

Future research should include a broader range of industries, particularly those with high environmental impacts, such as energy, mining, and manufacturing, to assess whether the observed patterns hold across sectors. Additionally, researchers could include additional proxies for green accounting, such as environmental costs, carbon emissions, or resource efficiency metrics, to provide a more comprehensive assessment of sustainability practices. On the other hand, including more control variables, such as firm size, governance structure, or market conditions, would increase the robustness of future analyses and help isolate the impact of green accounting practices.

REFERENCES

Agyemang, A., Yusheng, K., Twum, A., Edziah, B., & Ayamba, E. (2023). Environmental accounting and performance: empirical evidence from China. *Environment, Development and Sustainability*, *26*(2), 3687-3712. https://doi.org/10.1007/s10668-022-02853-y.

Al Amosh, H., & Khatib, S. (2023). ESG performance in the time of COVID-19 pandemic: cross-country evidence. *Environmental Science and Pollution Research*, *30*(14), 39978-39993. https://doi.org/10.1007/s11356-022-25050-w.

Amri, N. F. (2024). *Sekilas mengenai teori legitimasi (legitimacy theory).* https://e-akuntansi.com/teori-legitimasi/.

Ang, L., Hernández-Rodríguez, E., Cyriaque, V., & Yin, X. (2023). COVID-19's environmental impacts: Challenges and implications for the future. *Science of The Total Environment*, *899*, 165581. https://doi.org/https://doi.org/10.1016/j.scitotenv.2023.165581.

Angelina, M., & Nursasi, E. (2021). Pengaruh penerapan green accounting dan kinerja lingkungan terhadap kinerja keuangan perusahaan. *Jurnal Manajemen Dirgantara, 14*(2), 211–244. https://jurnal.sttkd.ac.id/index.php/jmd/article/view/286/237.

Augeraud-Véron, E., & Boungou, W. (2023). The impact of COVID-19 on bank profitability: Cross-country evidence. *German Economic Review, 24*(1), 69-95. https://doi.org/10.2139/ssrn.4318881.

Aydoğmuş, M., Gülay, G., & Ergun, K. (2022). Impact of ESG performance on firm value and profitability. *Borsa Istanbul Review*, *22*(2), 119–127. https://doi.org/10.1016/j.bir.2022.11.006.

Azizah, W. (2022). Pandemi COVID-19: Apakah mempengaruhi green accounting di Indonesia?. *Review of Applied Accounting Research (RAAR)*, *2*(2), 153-164. https://doi.org/10.30595/raar.v2i2.13679.

Binus University. (2021). Stakeholder theory dan hubungannya dengan sustainability report. Accounting Program School Of Accounting Binus University. https://accounting.binus.ac.id/2021/07/13/stakeholder-theory-dan-hubungannya-dengan-sustainability-report/.

Verina, D. C., & Rohman, A. (2024). Pengaruh pengungkapan Environmental, Social, and Governance (ESG) terhadap kinerja bank pada masa sebelum dan selama pandemi Covid-19. *Diponegoro Journal of Accounting*, *13*(3), 1–14. http://ejournal-s1.undip.ac.id/index.php/accounting.

Chasbiandani, T., Rizal, N., & Indra Satria, I. (2019). Penerapan green accounting terhadap profitabitas perusahaan di Indonesia. *AFRE (Accounting and Financial Review)*, *2*(2), 126–132. https://doi.org/10.26905/afr.v2i2.3722.

De Mendonca, T. R., & Zhou, Y. (2019). Environmental performance, customer satisfaction, and profitability: A study among large U.S. companies. *Sustainability (Switzerland)*, *11*(19), 5418. https://doi.org/10.3390/su11195418.

Earnhart, D. (2018). The effect of corporate environmental performance on corporate financial performance. *Annual Review of Resource Economics*, *10*(1), 425–444. https://www.jstor.org/stable/26773497.

Elmarzouky, M., Albitar, K., & Hussainey, K. (2021). Covid-19 and performance disclosure: Does governance matter? *International Journal of Accounting & Information Management*, *29*(5), 776–792. https://doi. org/10.1108/IJAIM-04-2021-0086.

Evelyn, Sudrajat, & Azhar, R. (2022). The effect of environmental performance, environmental costs, and company size on financial performance through corporate social responsibility. *Asian Journal of Economics and Business Management*, *1*(2), 131–140. https://doi.org/10.53402/ajebm.v1i2.175.

Guérin, P., & Suntheim, F. (2021). Firms' environmental performance and the COVID-19 crisis. *Economics Letters*, *205*, 109956. https://doi.org/10.1016/j.econlet.2021.109956.

Haider, J., & Mohammad, K. U. (2022). The effect of Covid-19 on bank profitability determinants of developed and developing economies. *IRASD Journal of Economics*, *4*(2), 187–203. https://doi.org/10.52131/joe.2022.0402.0072.

Heffron, R. J., Connor, R., Crossley, P., Mayor, V., Talus, K., & Tomain, J. P. (2021). The identification and impact of justice risks to commercial risks in the energy sector: post COVID-19 and for the energy transition. *Journal of Energy \& Natural Resources Law, 39*(4), 439–468. https://doi.org/https://doi.org/10.1080/02646811.2021.1874148.

Hidayat, K., Ompusunggu, A. P., & H. Suratno, H. S. (2018). Pengaruh corporate social responsibility terhadap agresivitas pajak dengan insentif pajak sebagai pemoderasi (Studi pada perusahaan pertambangan yang terdaftar di BEI). *JIAFE (Jurnal Ilmiah Akuntansi Fakultas Ekonomi)*, *2*(2), 39–58. https://doi.org/10.34204/jiafe.v2i2.543.

Indrawati, N. L,. & Devi, S. (2022). Transformasi penerapan aspek green accounting sebelum dan saat pandemi Covid-19 (Pada perusahaan manufaktur dan pertambangan yang terdaftar di BEI). *Vokasi : Jurnal Riset Akuntansi*, *11*(02), 191–202. https://doi.org/10.23887/vjra.v11i02.48387.

Jain, P., & Sharma, B. K. (2023). Impact of green banking practices on sustainable environmental performance and profitability of private sector banks. *International Journal of Social Ecology and Sustainable Development*, *14*(1), 1–19. https://doi.org/10.4018/IJSESD.330135.

Khan, P. A., & Johl, S. K. (2019). Nexus of comprehensive green innovation, environmental management System-14001-2015 and Firm Performance. *Cogent Business \& Management, 6*(1), 1691833. https://doi.org/https://doi.org/10.1080/23311975.2019.1691833.

Khan, S., & Gupta, S. (2023). The interplay of sustainability, corporate green accounting and firm financial performance: a meta-analytical investigation. *Sustainability Accounting, Management and Policy Journal, 15*(5), 1038–1066. https://doi.org/https://doi.org/10.1108/SAMPJ-01-2022-0016.

Lestari, A. D., & Zulaikha. (2021). Pengaruh good corporate governance dan corporate social responsibility terhadap nilai perusahaan (Kajian empiris pada perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia pada tahun 2015-2019). *Jurnal Akuntansi Manajemen, 10*(4). https:// ejournal3.undip.ac.id/index.php/accounting/article/view/33003.

Maama, H., & Appiah, K. O. (2019). Green accounting practices: lesson from an emerging economy. *Qualitative Research in Financial Markets*, *11*(4), 456–478. https://doi.org/10.1108/QRFM-02-2017-0013.

Mahajan, R., Lim, W. M., Sareen, M., Kumar, S., & Panwar, R. (2023). Stakeholder theory. *Journal of Business Research*, *166*, 114104. https://doi.org/https://doi.org/10.1016/j.jbusres.2023.114104.

Monteiro, A. P., Cepêda, C., & Barbosa, F. (2023). Environmental information disclosure and profitability: The environmental certification influence. *Corporate Social Responsibility in a Dynamic Global Environment: Sustainable Management in Challenging Times,* 381–396. https://doi.org/10.1007/978-3-031-24647-0_20.

Naseer, M. M., Hunjra, A. I., Mattoussi, F., & Amin, M. N. (2023). Unlocking the effect of corporate environmental practices in driving firms' financial performance. *Environmental Economics and Policy Studies*, 1–24. https://link.springer.com/article/10.1007/s10018-023-00385-x.

Ningtyas, A. A., & Triyanto, D. N. (2019). Pengaruh kinerja lingkungan dan pengungkapan lingkungan terhadap profitabilitas perusahaan. *Jurnal Akuntansi, Audit Dan Sistem Informasi Akuntansi, 3*(1), 14–26. https://doi.org/https://doi.org/10.36555/jasa.v3i1.532.

Nurita, D. (2022). 2 Tahun pandemi Covid-19, ringkasan perjalanan wabah corona di Indonesia. *TEMPO*. https://www.tempo.co/politik/2-tahun-pandemi-covid-19-ringkasan-perjalanan-wabah-corona-di-indonesia-420602.

Omaliko, E. L., Amnim, A., Okeke, P. C., & Obiora, F. C. (2021). Impact of Covid-19 pandemic on liquidity and profitability of firms in Nigeria. *International Journal of Academic Research in Business and Social Sciences*, *11*(3), 1331–1344. https://doi.org/10.6007/ijarbss/v11-i3/9229.

Pratama, W. P., & Rohmawati, N. (2018). Peran green accounting dalam upaya mencegah pencemaran lingkungan untuk menunjang keberlangsungan usaha. Semantic Scholar. https://api.semanticscholar.org/CorpusID:169942512.

Qadri, S. U., Ma, Z., Raza, M., Li, M., Qadri, S., Ye, C., & Xie, H. (2023). COVID-19 and financial performance: Pre and post effect of COVID-19 on organization performance; A study based on South Asian economy. *Frontiers in Public Health, 10*, 1055406. https://doi.org/https://doi. org/10.3389/fpubh.2022.1055406.

Riadi, M. (2022). Green accounting (Tujuan, karakteristik, prinsip, komponen dan pengukuran). Kajian Pustaka.Com. https://www.kajianpustaka.com/2022/07/green-accounting.html.

Sumiati, A., Susanti, S., Maulana, A., Indrawati, L., Puspitasari, D., & Indriani, R. (2022). Influence of green accounting and environmental performance on profitability. *Proceedings of the International Conference on Social, Economics, Business, and Education (ICSEBE 2021), 205*, 145–151. https://doi.org/10.2991/aebmr.k.220107.027.

Susanti, I. D., Hertati, L., & Putri, A. U. (2023). The effect of green accounting and environmental performance on company profitability. *Cashflow : Current Advanced Research on Sharia Finance and Economic Worldwide*, *2*(2), 320–331. https://doi.org/10.55047/cashflow.v2i2.552.

Sutrisno, S., Panuntun, B., & Adristi, F. I. (2020). The effect of Covid-19 pandemic on the performance of islamic bank in Indonesia. *Equity*, *23*(2), 125–136. https://doi.org/10.34209/equ.v23i2.2245.

Talukdar, A., Bhattacharya, S., Pal, S., Pal, P., & Chowdhury, S. (2024). Positive and negative impacts of COVID-19 on the environment: A critical review with sustainability approaches. *Hygiene and Environmental Health Advances, 12*, 100107. https://doi.org/https://doi.org/10.1016/j.heha.2024.100107.

Tjoa, E. V., & Patricia, L. (2022). Green accounting, environmental performance, and profitability: Empirical evidence on high profile industry in Indonesia. *Research In Management and Accounting, 5*(7), 93–105. https://doi.org/https://doi.org/10.33508/rima.v5i2.4158.

Wahyuningrum, I. F. S., Agustina, L., Jati, K. W., Amal, M. I., & Sriningsih, S. (2024). A slight look environmental disclosure score trends during Covid-19 outbreak: What's driver the environmental disclosure in Indonesian mining and manufacturing companies. *International Journal of Energy Economics and Policy, 14*(2), 160-171. https://api.semanticscholar.org/CorpusID:268473753.

Yenidoğan, A., Gurcaylilar-Yenidogan, T., & Tetik, N. (2021). Environmental management and hotel profitability: Operating performance matters. *Tourism & Management Studies, 17*(3), 7–19. https://doi.org/10.18089/tms.2021.170301.

Yin, H., Li, M., Ma, Y., & Zhang, Q. (2019). The relationship between environmental information disclosure and profitability: A comparison between different disclosure styles. *International Journal of Environmental Research and Public Health, 16*(9), 1556. https://doi.org/10.3390/ijerph16091556.

Yuen, M. K., Ngo, T., Le, T. D. Q., & Ho, T. H. (2022). The Environment, Social and Governance (ESG) activities and profitability under COVID-19: Evidence from the global banking sector. *Journal of Economics and Development, 24*(4), 345–364. https://doi.org/https://doi.org/10.1108/JED-08-2022-0136.