



The Effect of Environmental Performance, Eco-Efficiency, and Cash Holding on Firm Value

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ABSTRACT

This study aims to examine the relationship between environmental performance, eco-efficiency, and cash holding on firm value. The present study uses multiple regression analysis and the purposive sampling technique to analyse the data. The data are the annual report and financial report for manufacturing companies in the consumer non-cyclical sub-sector listed on the IDX from 2019 to 2021. The results show the relationship between environmental performance, eco-efficiency, and cash holding has a significant positive effect on firm value. The results of this study can provide valuable insight to managers, investors, policymakers, and stakeholders to make strategic decision-making and promote sustainable practices within the non-cyclical consumer goods manufacturing sub-sector.

Keywords: cash holding; environmental performance; eco-efficiency; firm value

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INTRODUCTION

Maximizing the value of the firm is an important goal to maintain the viability of the company. Increasing the firm value is a goal or target that every owner wants to achieve because if the firm value increases, the level of welfare will also increase. Firm value can also be used to assess the company's long-term performance and to compare it with its competitors. The firm value of companies listed on the Indonesia Stock Exchange (IDX) and active in offering shares to the public is assessed as an investor's perception of the company. Companies do not only rely on their financial performance but must also

pay attention to non-financial performance such as the company's environmental performance (Erlangga et al., 2021). Environmental performance from an economic perspective can be defined as a company's ability to obtain financial benefits by considering or paying attention to its impact on the environment. Research conducted by Kusuma & Dewi (2019) and Rismayanti et al., (2021) states that good environmental performance will improve the company's image in the eyes of the public and increase public buying interest which has an impact on increasing the profits earned by the company. Increased profits give a positive signal to investors, so they invest their funds in the company and make the stock prices go up. The results of research conducted by Hafidz and Deviyanti (2022) and Valdera, et al., (2022) show a significant relationship between environmental performance and firm value. Good environmental performance shows a form of corporate responsibility for environmental sustainability that can attract the interest of stakeholders to trust the company. It will also have an impact on increasing the value of the firm.

Industrial activities coexist directly with the environment which encourages society and stakeholders to force companies to adopt green strategies. Based on data from the National Waste Management Information System (Indonesian: *Sistem Informasi Pengelolaan Sampah Nasional*, abbreviated SIPSN) of the Ministry of Environment and Forestry (Indonesian: *Kementrian Lingkungan Hidup dan Kehutanan*, abbreviated KLHK), most of the national waste in 2022 is coming from food waste with 41.55% and the plastic waste is in the second place with 18.55%. Consumer non-cyclical are a significant contributor to environmental damage since unresolved waste generation can hurt the environment and health. Several global reports state that Indonesia is among the world's largest producers of plastic waste and food waste. The environmental damage has prompted the Indonesian government to oblige companies to care for nature and the surrounding environment.

To deal with the environmental problems, the Government of the Republic of Indonesia has tightened regulations related to the environment, including regulations such as Environmental Law No. 46 of 2017 concerning Environmental Economic Instruments. Furthermore, the Financial Services Authority (Indonesian: *Otoritas Jasa Keuangan*, abbreviated OJK) issued OJK regulation No. 51/POJK.03/2017 concerning the implementation of sustainable finance for Financial Services Institutions to create a financial system that applies sustainable principles. Indonesia has also drawn up several regulations to control the company's negative impact on the environment, such as Government Regulation No. 22 of 2021 concerning Implementation of Environmental Protection and Management and Regulation of the Minister of Environment and Forestry No. 1 of 2021 concerning Programs for Evaluation of Company Performance Ratings in Environmental Management. Corporate Performance Rating Assessment Program in Environmental Management, Corporate value, and environmental performance can be increased by implementing an environmental strategy that can connect the economy and the environment (Damas et al., 2021). Indicators for improving the assessment of environmental performance are assessed through the Company Performance Rating Program (Indonesian: *Program Penilaian Peringkat Kinerja Perusahaan Program*, abbreviated PROPER) by promoting sustainable improvements to disaster response programs that are expected to participate in the Sustainable Development Goals (SDGs) as a sustainable development effort that promotes people's welfare.

The Dictionary of the Environment and the Ministry of Environment of the Republic of Indonesia defines eco-efficiency as a combination of the concepts of economic efficiency which then includes aspects of natural resources and energy or a production process that minimizes the use of raw materials, water, and energy and minimizes the environmental impact due to production. In addition, eco-efficiency is the concept of an environmental management system whose function is to manage control over the resulting environmental impacts (Aviyanti & Isbanah, 2019). Reducing operational expenses and company compliance costs due to the implementation of eco-efficiency will cause the company's

profitability to increase and will be accompanied by an increase in firm value. PT Unilever Indonesia is also one of the major companies in Indonesia that implements the eco-efficiency concept and has also carried out ISO 14001 certification. This company has implemented the zero waste to landfill program since 2014 which aims to reduce waste generated during the production process. The value of the company increases when the company has an ISO 14001 certificate, which means the company has applied the concept of eco-efficiency in its activities. Research conducted by Damas et al., (2021) related to eco-efficiency proves that eco-efficiency has a negative effect on firm value. The results of research from Dewi & Rahmianingsih (2020) regarding increasing corporate value through green innovation and eco-efficiency state that eco-efficiency has a positive influence on firm value because companies are considered to have a better future compared to companies that do not implement eco-efficiency.

Cash holding is the ownership of cash owned by the company which is used for the company's operational activities. Optimal cash can reduce financial distress in the company so that the company's operational activities will run according to plan (Aviyanti & Isbanah, 2019). It is supported by the results of the research conducted by Danang Satrio (2020) and Safitri et al., (2019) that show eco-efficiency has a positive effect on firm value. The firm's value has increased and the company has an ISO-14001 certificate on environmental management. It means the company applies the concept of eco-efficiency in its activities. A high level of cash holding will indicate a lack of profitable investment opportunities, thereby reducing the value of the firm. In the previous research, cash holding is stated to have a negative effect on firm value and is contrary to signalling theory which explains that companies that have a high level of cash holding can attract investors to invest in the company. However, the use of a combination of environmental performance and eco-efficiency in influencing the value of companies participating in PROPER with the cash holding variable has not been investigated. Different from the previous research, this study uses consumer non-cyclical manufacturing companies listed on the Indonesia Stock Exchange as objects to obtain a more objective and representative test.

This study is different from previous research because it alters research that has been conducted by Dewi & Rahmianingsih (2020), entitled *Corporate Value through Green Innovation and Eco-efficiency*, and also research from Aviyanti & Isbanah (2019), entitled *Effects of Eco-efficiency, Corporate Social Responsibility, Ownership Concentration, and Cash Holding on the Firm Value of the consumer goods sector on the IDX from 2011 to 2016*. In the previous research, cash holding is stated to have a negative effect on firm value and is contrary to signalling theory which explains that companies that have a high level of cash holding can attract investors to invest in the company. However, the use of a combination of environmental performance and eco-efficiency in influencing the value of companies participating in PROPER with the cash holding variable has not been investigated. Different from the previous research, this study uses consumer non-cyclical manufacturing companies listed on the Indonesia Stock Exchange as objects to obtain a more objective and representative test. From various studies regarding the relationship between cash holdings and firm value, there are still different and inconsistent interpretations. Different from the previous research, this study uses consumer non-cyclical manufacturing companies listed on the Indonesia Stock Exchange as objects to obtain a more objective and representative test.

The Effect of Environmental Performance on Firm Value

Environmental performance is the ability of a company to gain profits by considering its impact on the environment and fulfilling its responsibilities to the environment. Environmental performance can also be viewed as an act of better corporate responsibility towards environmental sustainability. The relationship between environmental performance and legitimacy theory is closely related to how companies manage their perceptions and image toward the public and stakeholders. By achieving good environmental performance, companies can meet public expectations of corporate social responsibility

to protect the environment and contribute to sustainability. Poor environmental performance can lead to decreased support and investment, while good environmental performance can increase trust and maintain good relations with stakeholders. Research conducted by Abrahams, et al., (2020) shows that there is a positive effect on environmental disclosure with company valuation using an assessment of carbon emission productivity. It happens because the company can fulfil contracts or legitimize the community, so its existence will be responded to positively by the community or investors (Rismayanti, et al., 2021). It is supported by the results of research conducted by Hafidz and Deviyanti (2022) and Valdera, et al., (2022) which show a significant relationship between environmental performance and firm value. Good environmental performance shows a corporate responsibility for environmental sustainability that can attract stakeholders' interest and trust in the company and it will have an impact on increasing firm value.

H1: Environmental Performance Has a Positive Influence on Firm Value

The Effect of Eco-Efficiency on Firm Value

According to the World Business Council for Sustainable Development (WBCSD), eco-efficiency is a management philosophy that stimulates businesses to seek environmental improvements that produce parallel economic benefits. Eco-efficiency can be defined as a company's ability to achieve optimal results by using fewer resources, so it produces less waste and reduces company operational costs. According to Connelly, et al., (2011), the signal theory states how the signal giver (inside party/company) provides information about the company or product which turns into a signal (information) that is sent to the recipient/user (outside party). The signals provided by the company are intended to assist investors in making decisions or taking quick and appropriate steps to invest. This efficiency gives a positive signal to stakeholders and investors that the company can manage resources wisely and generate greater profits from efficient operations. It is supported by research conducted by Danang Satrio (2020) and Safitri, et al., (2019) which obtained results that eco-efficiency has a positive effect on firm value. The firm's value increases if the company has an ISO-14001 certificate regarding environmental management, which means the company applies the eco-efficiency concept in company activities. According to Panggau and Septiani (2019), the involvement of eco-efficiency as a business strategy has a positive relationship with firm value. It can be proven companies that adopt the eco-efficiency concept have a higher firm value than companies that do not adopt this concept. According to Khoiroh and Subardjo (2020) in their research, it is stated that a company that has optimal cash means that the company can meet all of the company's operational needs.

H2: Eco-Efficiency Has a Positive Effect on Firm Value.

The Effect of Cash Holding on Firm Value

According to the Indonesian Accounting Association (Indonesian: *Ikatan Akuntansi Indonesia*, abbreviated PSAK) in PSAK 2 Revised 2016, it is explained that cash consists of cash balances (cash on hand) and checking accounts (demand deposits) while cash equivalents are investments that are liquid, short-term, and can quickly be used as cash in an amount that can be determined and has an insignificant risk of change in value. The availability of cash holding will influence how much the company will invest. If cash Holding is too high, it can reduce the potential profits that can be obtained through more productive investments, while too little cash holding can increase financial risk. In signal theory, financial reports are considered relevant if they can provide something useful for users and have information that can be used as consideration before making decisions. A high level of cash holding (excess cash holding) will indicate a lack of profitable investment opportunities because the cash in the company is only stored and not used to make more profitable investments, thereby reducing the value of the firm. It is supported by research conducted by Aviyanti and Isbanah (2019) which states that cash

holding has a negative effect on firm value due to operational activities which will be hampered if there is no money for transactions, investments, and dividend distribution. It causes investor interest to decrease so that share prices and firm value also decrease.

H3: Cash Holding Has a Negative Effect on Firm Value.

RESEARCH METHOD

This study is causal research that uses secondary and quantitative data. The data were obtained from data available on the Indonesia Stock Exchange (BEI), financial reports, and company annual reports. The samples are manufacturing companies and the consumer non-cyclical manufacturing sub-sector which is also known as primary consumer goods which are often involved in producing goods that directly affect the environment, such as food, drinks, personal care, and the other products that are similar to it. The current study was carried out from 2019 to 2021 because the latest data tends to be more accurate and reflects real economic business conditions. The data were selected using a purposive sampling method. The data that meet the specified conditions and characteristics were collected, including companies that disclose financial reports and annual reports during years of research and consumer non-cyclical sub-sector manufacturing companies registered in PROPER. The hypothesis test and analysis were performed using multiple linear regression analysis supported by SPSS (Statistical Package for The Social Sciences) data processing software.

Firm Value

Firm value is measured using Tobin's Q. The greater the value generated, the more the company has good growth prospects. Tobin's Q explains the companies' ability to develop their share price, the manager's capacity to manage company assets, and the ability to grow investments. Here is the equation of Tobin's Q:

$$Tobin's\ Q = \frac{TNP + TNL}{Total\ Asset\ Value}$$

Description:

TNP = Closing price x number of outstanding stocks

TNL = Total value of liabilities in the financial statements

TNA = Total asset value in the financial statements

Environmental Performance

Environmental performance is measured using the Company Performance Rating Assessment Program in Environmental Management which is managed by the Ministry of Environment and Forestry. PROPER is assessed based on company ranking categories in five colours to assess the company's compliance and awareness in managing the environment, including:

Table 1. Measurement of environmental performance

Colour	Description	Score/Number
Gold	Excellent	5
Green	Very good	4
Blue	Good	3
Red	Poor	2
Black	Very poor	1

Source: Ministry of Environment and Forestry

Eco-Efficiency

Eco-efficiency is an approach in business that aims to reduce negative impacts on the environment by maximizing the efficient use of resources and increasing economic profits. According to Dewi & Rahmianingsih (2020), eco-efficiency will function as a management controller to reduce the company's impact on the environment and simultaneously create more value for shareholders. Eco-efficiency is measured by the company's participation in the ISO 14001 certification program. Information related to the company's participation in ISO can be obtained from annual sustainability reports and other sources. Eco-Efficiency is measured using dummy data which refers to research conducted by Damas et al., (2021) by giving a value of one for eco-efficient companies and zero for non-eco-efficient companies.

Cash Holding

The amount of Cash Holding shows the company's ability to face unexpected economic challenges or market instability. By having good environmental performance and eco-efficiency, companies tend to be more competitive and able to generate sustainable profits. The amount of cash holding can also reflect the company's ability to carry out business expansion, make acquisitions, or invest in more efficient technology and sustainable systems. A high level of cash holding will indicate a lack of profitable investment opportunities, thereby reducing the value of the company. The following is the equation used to calculate cash holding:

$$CH = \frac{\text{Cash and Cash Equivalent}}{\text{Total Asset}}$$

Analysis Method

This study uses multiple linear regression analysis techniques to determine the effect of the independent variable on the dependent variable. The multiple linear regression equation is formulated as follows:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

Information:

- X1 = Environmental Performance
- X2 = Eco-Efficiency
- X3 = Cash Holding
- Y = Firm Value
- a = Constant Coefficient
- e = Standard Error
- $\beta_1, \beta_2, \beta_3$ = Regression Coefficient

RESULT AND DISCUSSION

Descriptive Statistical Test

Table 1. Result of descriptive statistical test

	N	Minimum	Maximum	Mean	Std. Deviation
Environmental Performance	105	2	5	3,01	0,427
Cash Holding	105	-0,0390	0,5920	0,122441	0,2185987

	N	Minimum	Maximum	Mean	Std. Deviation
Firm Value	105	6,0790	1488,6740	152,219495	238,3230658
Valid N (listwise)	105				

Source: Output SPSS 25, processed data 2023

Based on the data shown in Table 1, it shows that the objects studied (N) in 2019-2021 were 105 samples. Table 1 is used to assist in identifying the size of the deviation for each variable that affects one variable to another.

The average (mean) value of the company from 35 companies is 152.22. It means the value of the company is valued at 152.22 times greater than its book value. Tobin's Q shows the relationship between market value and the intrinsic value of a company (Hayes, 2021). When Tobin's Q < 1, it indicates that the stock is undervalued because its book value is higher than its market value. It happens because management has failed in managing company assets or there is low investment growth. Conversely, when Tobin's Q > 1 indicates that the stock is overvalued, management has succeeded in managing the company's assets or has high investment growth potential.

The average (mean) environmental performance of the 35 companies, is equal to 3.01. The value illustrates the company's position in the colour indicator of the Company Performance Assessment Program is in a blue position or it can be said that there are still many companies that are making environmental management efforts that are following the required conditions (have fulfilled all aspects required by KLH).

Table 2. Result of frequency of eco-efficiency dummy variable

Description	Frequency	Percentage (%)
Company that does not have ISO 14001 certification	16	45,71
Company that has ISO 14001 certification	19	54,29
TOTAL	35	100

Eco-efficiency has a minimum value of 0 and a maximum value of 1. It is because eco-efficiency uses dummy measurements where 0 is for companies that do not have ISO 14001 certification and 1 is for companies that have ISO 14001 certification. Table 2 shows 16 companies or 45.71% of companies did not obtain ISO 14001 certification or did not implement eco-efficiency, while 19 companies, or 54.29% received ISO 14001 certification.

From 35 companies, the average (mean) cash holding value was 0.122. Cash holding Percentage refers to the percentage of total firm value represented by the amount of cash in the company. A high cash holding percentage can indicate that the company is more conservative in its use of cash. It is usually used to maintain larger cash reserves to face economic risks and uncertainty or as a safer financial strategy.

Classical Assumption Test

The classical assumption test consists of a normality test, multicollinearity test, autocorrelation test, and heteroscedasticity test. The classical assumption test in this study uses graphs (histograms and normal probability plots) and the Kolmogorov-Smirnov test. Table 3 describes the results of the normality test that shows a significance value of > 0.05 and it can be concluded that the regression model that will be used as a research hypothesis has met the assumptions of normality or normally distributed data. Table 3 also explains the results of the multicollinearity test which can be seen from the tolerance

value above 0.1 and the VIF value <10 for all variables. It can be concluded that there is no multicollinearity. The results of the heteroscedasticity test above show that all variables have a sig value greater than 0.05. Therefore, it can be concluded that the regression model is not constrained by heteroscedasticity. With a total of 105 samples and an independent variable of 3 ($k = 3$), the Durbin-Watson table will give a du value of 1.7411. Because the dw value of 2.117 is greater than the upper limit (du) of 1.7411 and less than 4-du ($4 - 1.7411 = 2.2589$). It can be concluded that there is no autocorrelation.

Table 3. Result of classical assumption test

Description	Result	
Normality Test	Sig. (2-tailed)	.083
Multicollinearity Test	. <i>Tolerance</i>	VIF
Environmental Performance	.976	1.025
Eco-Efficiency	.994	1.006
Cash Holding	.978	1.023
Heteroscedasticity Test		
Environmental Performance		.908
Eco-Efficiency		.695
Cash Holding		.931
Autocorrelation Test	R^2 .933	Dw 2.117

Source: Output SPSS 25, processed data 2023

Hypothesis Testing

Table 4 explains that the independent variable F test has a calculated F of 346.587 with a significance of $0.000 < 0.005$ so that the independent variables (environmental performance, eco-efficiency, and cash holding) have an effect on the dependent variable (firm value). Based on the results of the t-test from the table in the Environmental Performance regression model, a significance value of 0.005 was obtained, which means it is smaller than 0.05 ($0.000 < 0.05$) and the unstandardized beta value is 189.480 in the positive direction and T count $> T$ Table ($2.888 > 1.98373$). Therefore, it can be concluded that H1 is accepted. It means partially the Environmental Performance variable has a positive effect on firm value. Eco-Efficiency obtained a significance value of 0.000 which means it is smaller than 0.05 ($0.000 < 0.05$) and an unstandardized beta value of 149.484 in the positive direction and T count $> T$ table ($11.345 > 1.98373$). Therefore, it can be concluded that H2 is accepted. It means partially the eco-efficiency variable has a positive effect on firm value. Cash holding obtained a significance value of 0.000 which means it is smaller than 0.05 ($0.000 < 0.05$) and an unstandardized beta value of 161.725 in the positive direction and T count $> T$ table ($15.076 > 1.98373$). Therefore, it can be concluded that H3 is accepted. It means partially the cash holding variable has a positive effect on firm value. Adjusted R Square is 0.930. It means that the variation of the independent variable (cash holding, environmental performance, eco-efficiency) can explain the variation of the dependent variable (firm value) by 93% while the remaining 7% of the variance in the dependent variable is explained by other factors.

Table 4. Result of hypothesis testing

	B	t	Sig.	Decision
F test			.000	
T test				
Constant	156.259	.548	.585	
Environmental Performance	189.480	2.888	.005	H1 Accepted
Eco-Efficiency	149.484	11.354	.000	H2 Accepted
Cash Holding	161.725	15.076	.000	H3 Accepted
Adjusted R	.930			

Source: Output SPSS 25, processed data 2023

The Effect of Environmental Performance on Firm Value

A significance value of $0.005 < 0.05$ proves that environmental performance which is assessed by a PROPER rating based on a decree issued by the Ministry of Environment and Forestry, has a positive effect on firm value. Environmental management activities can be used as an act of corporate responsibility for environmental sustainability with the hope of gaining legitimacy from the community and a positive response from stakeholders (Rismayanti et al., 2021). It happens because environmental strategy can bridge the economy and the environment. In line with legitimacy theory, if a company's environmental performance is good, public opinion towards the company will increase, and vice versa (Wirawati, et al., 2020; Sudjana & Sudana, 2017). Companies with good environmental performance need to disclose better environmental quantity and quality information than companies with poor environmental performance. The more the company has a role in environmental management, the more the company needs to disclose the annual report related to environmental performance. Disclosures made by the company imply good and positive environmental performance which will gain higher legitimacy from stakeholders and increase the company's image in society.

The Effect of Eco-Efficiency on Firm Value

The eco-efficiency significance value of $0.000 < 0.05$ successfully proves that an environmental management system with ISO 14001 certification has a positive effect on Firm Value. In this study, Eco-efficiency is defined as increasing productivity which can simultaneously reduce costs by increasing environmental performance (Meutia et al., 2019). Efficient use of resources that can damage the environment can provide a higher assessment for the company compared to its competitors. By implementing eco-efficiency, companies are considered to have a better future compared to companies that do not implement Eco-Efficiency (Dewi & Rahmianingsih, 2020). In line with signal theory, ISO 14001 certification is a signal to stakeholders that the company has met international standards in environmental management. It can strengthen the perception that the company has good quality and adherence to environmental principles. Thus, ISO 14001 certification can increase the perception of firm value by stakeholders, including customers, investors, and governments. ISO 14001 certification can also be a signal to stakeholders that the company has an efficient and structured management system to manage environmental impacts. In the context of eco-efficiency, ISO 14001 can help companies identify opportunities to increase operational efficiency and reduce negative impacts on the environment. These signals can strengthen the perception that the company is a high-performing and efficient entity which can increase firm value. It follows the results of research by Danang Satrio (2020) which found that eco-efficiency has a positive effect on firm value.

The Effect of Cash Holding on Firm Value

The significance value of cash holding of $0.000 < 0.05$ proves that cash holding has a positive effect on firm value. The advantages of cash holding can be used to fulfil short-term obligations and maintain the business activities running smoothly. A high level of cash holding in manufacturing companies in Indonesia shows the company's liquidity, the company's ability to maintain operational levels, and the ability to survive in uncertain economic conditions. It indicates good company performance. The signalling theory explains that companies that have a high level of cash holding can attract investors to invest. In this context, a high level of cash holding can be considered as a resource available for business expansion, acquisition, research and development, or other investments that have the potential to generate growth and added value for the company. It can increase the perception of corporate value by stakeholders. A high level of cash holding can be a signal to stakeholders that the company has strong financial stability and security. By having sufficient cash reserves, companies can deal with unexpected situations or times of uncertainty without being overly dependent on loans or external funding. It can increase the perceived value of the company because stakeholders feel more confident about the company's ability to survive in difficult conditions. It is in line with the results of research by (Teruel, 2009) which concluded that in signal theory, financial reports are considered relevant if they can provide something useful for users and have information that can be used as material for consideration before making decisions.

The results of this study indicate that there is a significant positive influence between environmental performance, eco-efficiency, and cash holding on firm value in manufacturing companies in the consumer non-cyclical sub-sector. The hypothesis proposed in this research is strongly supported by the data analysed. In the context of environmental performance, companies that show better environmental performance tend to have higher corporate values. It shows that environmentally friendly business practices can make a positive contribution to the market assessment of the company. Companies that can reduce the environmental impact of their operations, for instance by reducing carbon emissions or managing waste properly, have the potential to be more highly valued by investors and stakeholders. Furthermore, eco-efficiency is also proven to have a positive influence on company value. Companies that can generate higher economic value using fewer resources and produce lower environmental impacts have a competitive advantage that can increase firm value. It reflects that efficiency in the use of resources, both in operational and environmental aspects, can generate long-term financial benefits. Moreover, cash holding also has an important role in increasing firm value. Companies with sufficient levels of cash reserves tend to be more valued by the market. It can be concluded that having adequate cash reserves guarantees financial stability and flexibility in dealing with economic uncertainty. Better smart investments and strategic decisions can be made when a company has a strong financial position.

CONCLUSION

This study has found that environmental performance, eco-efficiency, and cash holding have a positive and significant effect on firm value in manufacturing companies in the consumer non-cyclical sub-sector from 2019 to 2021. This study implies that the integration of business practices that focus on environmental performance, resource efficiency, and prudent financial management can positively influence the market valuation of companies in the consumer non-cyclical sub-sector. Company stakeholders need to consider the importance of these aspects in making strategic decisions to increase corporate value and create long-term positive impacts. Furthermore, these findings have provided valuable insights for investors who want to identify companies with long-term value growth potential. Meanwhile, for policymakers, these findings can raise awareness of the benefits of sustainable business practices and encourage the implementation of regulations for companies to adopt these practices.

This study is limited by the lack of manufacturing companies in the consumer non-cyclical sub-sector participating in the Corporate Performance Assessment Program as an indicator of environmental performance assessed by the Ministry of Environment and Forestry. Moreover, the observation was carried out until 2021 and cannot use data in 2022 since measuring firm value and cash holding requires the latest financial reports and annual reports. In this case, many companies have not disclosed their latest financial reports or annual reports until the time of this study. Further studies need to be carried out by expanding the scope of the observation industry by adding or changing the industrial sector used, using different measurements, or changing independent variables to broaden the discussion.

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