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THE IMPACT OF ECONOMIC PERFORMANCE AND ENVIRONMENTAL PERFORMANCE ON FIRM VALUE

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ABSTRACT

This study explores the relationship between economic and environmental performance and firm value in the consumer non-cyclical sector listed on the Indonesia Stock Exchange during 2020–2023. The sample consists of companies that consistently published sustainability report*s. Economic performance is measured using Economic Value Added (EVA) is a comprehensive and to reflect long-term value creation, Meanwhile, environmental performance is evaluated based on ESG ratings published by the BGK Foundation. To determine firm value, Tobin's Q is used as the main indicator, with leverage introduced as a control factor to account for capital structure influence. A quantitative method is employed, utilizing secondary data. A total of 18 companies were purposively selected, resulting in 72 observations over four years. The analysis uses panel data regression, beginning with descriptive statistics, followed by model selection, classical assumption tests, and hypothesis testing. The findings indicate that EVA has a significant positive effect on firm value, suggesting that strong economic performance enhances market valuation. In contrast, ESG scores are found to negatively influence firm value, implying that higher environmental disclosures may not align with investor expectations in this context. Simultaneous testing confirms the overall significance of the independent variables, while leverage does not show a notable impact.*

Keywords: *sustainability report; Economic Value Added (EVA); ESG index; firm value; leverage*

ABSTRAK

Penelitian ini bertujuan untuk mengkaji pengaruh kinerja ekonomi dan kinerja lingkungan terhadap nilai perusahaan pada sektor barang konsumsi primer yang tercatat di Bursa Efek Indonesia selama periode 2020–2023. Penelitian difokuskan pada perusahaan-perusahaan yang secara konsisten menerbitkan laporan keberlanjutan setiap tahunnya. Kinerja ekonomi diukur menggunakan indikator *Economic Value Added* (EVA) karena komprehensif dan mencerminkan penciptaan nilai jangka panjang. Kinerja lingkungan dievaluasi berdasarkan indeks *Environmental, Social, and Governance* (ESG) yang diterbitkan oleh BGK Foundation. Nilai perusahaan diukur melalui rasio *Tobin's Q*, sementara leverage digunakan sebagai variabel kontrol. Metode yang digunakan adalah pendekatan kuantitatif dengan data sekunder. Teknik purposive sampling digunakan untuk menentukan sampel, menghasilkan 18 perusahaan dengan total 72 observasi dalam empat tahun. Analisis dilakukan dengan regresi data panel yang mencakup analisis deskriptif, uji pemilihan model, uji asumsi klasik, serta pengujian hipotesis. Hasil analisis menunjukkan bahwa EVA berpengaruh positif dan signifikan terhadap nilai perusahaan. Sebaliknya, kinerja lingkungan berdasarkan ESG justru berpengaruh negatif signifikan. Secara simultan, variabel independen terbukti memengaruhi nilai perusahaan, sedangkan leverage sebagai variabel kontrol tidak menunjukkan pengaruh yang berarti.

Kata Kunci: laporan keberlanjutan*; Economic Value Added* (EVA); indeks ESG; nilai perusahaan; *leverage*

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1. INTRODUCTION

The current phenomenon of global warming encourages all industries to conduct business activities by paying attention to the concept of sustainability that is balanced between the economy (profit), social welfare (people), and environmental sustainability (planet), as introduced in the Triple Bottom Line concept by John Elkington in 1994. Therefore, companies need to evaluate performance not only from an economic point of view, but also in terms of the social and environmental impacts arising from the company's business operations. Law No. 23 of 1997 Article 6 Paragraph 2 states that business actors are required to manage and submit information regarding the environmental impact of their business activities[1]. Furthermore, the Financial Services Authority (OJK) in Financial Services Authority Regulation No.51/POJK.03/2017 requires public companies to include sustainability information in the annual report[2]. This is related to the concept of environmental performance which is closely related to the ESG principles, namely the environmental, community welfare (social), and governance. Based on a report written by McKinsey & Company, around 85% of investors surveyed stated that ESG is an important factor in investment decisions[3].

While there is increasing attention to sustainability and ESG issues, there is still uncertainty about how much ESG affects firm value in the market, especially in different sectors. According to Abdi, Li, & Càmara-Turull (2020), research conducted on the airline industry yielded a significant relationship between ESG disclosures and firm value, suggesting that ESG practices may influence investors' perceptions of the company. Some investors have begun to consider ESG in their investment decisions, but for some sectors the effect of ESG on firm value is still inconsistent. There are also different results, namely ESG has a significant but negative effect on firm value, because ESG initiation incurs more costs and its impact reduces firm value (Qurniasih, Pramurindra, Fakhruddin, & Inayati, 2025). ESG only shows significant influence on firms in sectors where sustainability issues are economically material (Feliyanti, 2022). Thus, further analysis is needed to identify how much ESG affects firm value empirically, especially in the consumer non-cyclical sector.

In addition to ESG, economic performance reflects a company's ability to generate profit and maintain sustainable financial growth. One approach to measuring economic performance in relation to firm value is the Economic Value Added (EVA) method, introduced by Stern Stewart & Co. in 1989, which offers a more accurate and comprehensive evaluation framework. EVA serves as an indicator of whether a company has successfully created economic value for both the firm and its investors (Firmanda & Wahyuni, 2024). Furthermore, according to Nurangraini et al. (2022) suggest strong economic performance can have a positive impact on shareholders and other investors, ultimately leding to an increase in firm value. However, there are also findings that contradict this view, such as the study by Susanto & Salim (2021), which reports that economic performance measured using EVA does not significantly influence firm value.

Leverage serves as an essential control variable in this study to ensure that the influence of economic performance and environmental performance on firm value is not significantly biased by the effect of leverage. This is consistent with the findings of Giannopoulos, Fagernes, Elmarzouky, & Hossain (2022) who indicated that leverage as a control variable does not exhibit a significant effect on firm value. This research focuses on companies operating in the consumer non-cyclical sector that are listed on the Indonesia Stock Exchange during the observation period from 2020 to 2023. The

[1] Law No. 23 of 1997 Article 6 Paragraph 2, accessible at: https://peraturan.bpk.go.id/Details/46018

[2] Financial Services Authority Regulations, accessible at: https://ojk.go.id/id/regulasi/Pages/Penerapan-Keuangan-Berkelanjutan-bagi-Lembaga-Jasa-Keuangan,-Emiten,-dan-Perusahaan-Publik.aspx

[3] McKinsey & Company Report, accessible at: https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/investors-want-to-hear-from-companies-about-the-value-of-sustainability

aim is to assess the consistency of economic and environmental performance disclosures and examine their effects on firm value. Investors tend to favor companies in the consumer non-cyclical sector due to their relatively stable stock performance and lower risk profile. In Indonesia, manufacturing companies are consistently influenced by economic developments and significantly contribute to environmental impacts through their business operations. Therefore, analyzing how economic and environmental performance affect firm value is particularly relevant in this context.

This study takes into account the potential presence of a lagged effect, where the influence of independent variables does not manifest immediately but rather over time (Wu & Satjawathee, 2024). It is assumed that the firm's economic performance and environmental performance disclosed in the current year (t) will have an impact on firm value in the following year (t+1). This delayed effect is incorporated into the analysis to enhance accuracy by minimizing potential distortions caused by short-term or temporary fluctuations occurring within the same year.

2. LITERATURE REVIEW

Signal Theory

Signal theory was developed by Spence (1973) and explains that the sending party, in this case the company, can provide signals regarding information that describes the condition of the company to the receiving party, namely stakeholders (Subroto & Endaryanti, 2024). In this study, companies in the primary consumer goods sector provide signals to investors through sustainability reports, which include information on economic performance and the company's efforts to protect the environment. The information disclosed will help investors in determining investment decisions in the company (Yastami & Dewi, 2022).

Economic Value Added (EVA) is used as an indicator in providing additional economic value to shareholders by first considering the capital costs incurred (Dobrowolski, Drozdowski, Panait, & Babczuk, 2022). Based on signal theory, positive EVA provides a strong signal to stakeholders that the company can manage capital well, then increasing market trust and the company's legitimacy. Wibowo et al., (2022) states that positive economic performance also has a positive impact on shareholders, because they will receive large profits from the profits obtained by the company.

Stakeholder Theory

The initial concept of stakeholder theory introduced by R. Edward Freeman in 1984 emphasized that companies have responsibilities to the interests of various parties involved in their business activities. Covering economic performance, social conditions, and the environment as a form of business obligations and ethics. Identifying all relationships will ensure long-term success (Freeman & McVea, 2002). Balancing various aspects will form a good bond between the company and all stakeholders in a sustainable manner (Subroto & Endaryanti, 2024). Currently, the disclosure of sustainability reports is a special concern for stakeholders in determining the sustainability of a company's business activities, both investors and the community as consumers. This is because the information in the sustainability report can reflect economic conditions and environmental conditions

Legitimacy Theory

The legitimacy theory, initially formulated by Dowling and Pfeffer in 1975, posits that legitimacy serves as a fundamental component in enabling firms to sustain and expand their operations over the long term. Organizations are expected to align their conduct with prevailing social norms, as adherence to these societal expectations enhances their perceived legitimacy. The sustainability and growth of a business is related to the company's ability to achieve the desired goals, by providing economic, social, or environmental benefits to the community that is the source of its strength (Perdana, Salim, Ratna, & Rofiq, 2023). According to Afifah, Astuti, & Irawan (2021), achieving legitimacy requires the establishment of a favorable public image. Firms that disclose sustainability reports within their annual publications and engage in practices that comply with regulatory and normative

frameworks are more likely to be regarded as legitimate by society. Therefore, the theory of legitimacy is the basis for disclosing sustainability reports in environmental information transparency.

Previous Research

Every company needs to consider environmental disclosure in every business activity, which will affect financial performance and the firm value in the long term. This statement is in accordance with previous research conducted by Giannopoulos et al., (2022) on the effect of ESG disclosure on financial performance and firm value in Norwegian companies. The results explain that ESG increases Tobin's Q. Meanwhile, Tobin's Q is negatively and insignificantly affected by the leverage control variable. However, the results are contrary to the study conducted by Bahadir & Akarsu (2024), the study indicates that Tobin's Q is not significantly affected by environmental performance as defined by ESG.

Manufacturing companies feel the impact of economic development amidst tight competition, so that economic performance assessment is needed in order to maximize the firm value. Another study that discusses the influence of Economic Value Added (EVA) on firm value is Bukit & Adisetiawan (2023); Tobing, Prasetyo, & Azhar (2022) with the same sample, namely food and beverage sub-sector manufacturing companies listed on the IDX. The analysis findings show that EVA significantly affects Tobin's Q. Additional studies conductedSusanto & Salim (2021)in the manufacturing sector found that corporate value was significantly enhanced by environmental performance. However, EVA showed a negative and insignificant effect on corporate value.

Reviewing further studies, there is researchAbdi et al. (2020) which examines how ESG disclosure affects firm value in the airline industry from 2010-2019. The results explain that ESG contributes to increasing firm value. Another study byToro, Teba, Márquez, & Fernández (2021) analyzed the relationship between ESG indicators on the value of global pharmaceutical companies. The findings show a strong positive relationship between ESG disclosure and Tobin's Q. A similar study was also conducted byYu & Xiao (2022), who found that overall ESG performance has a strong positive relationship with firm value.

Economic Performance and Firm Value

A firm's economic performance serves as a fundamental indicator of its profitability and reflects the potential for long-term, sustainable growth. Under the lens of signaling theory, an upward trend in earnings is often interpreted as a positive signal by investors, suggesting robust financial health and favorable future prospects. This perspective aligns with the findings of Adyaksana, Umam, Adhivinna, & Dinakesuma (2024), who argue that strong economic performance tends to enhance shareholder value. Conversely, a decline in earnings may be perceived as a negative signal, potentially diminishing investor confidence and, in turn, lowering the firm value.

In addition, solid economic performance contributes to maintaining a company's legitimacy in the eyes of stakeholders and fosters trust that the firm is capable of operating in a sustainable manner. When measured using Economic Value Added (EVA), economic performance captures the net economic contribution delivered to shareholders, particularly when the firm's return exceeds its cost of capital. Supporting evidence from Tobing et al., (2022) further suggests that firms generating positive EVA are more likely to experience stock price appreciation, thereby increasing overall firm value. Based on this rationale, the following hypothesis is proposed:

H1: Economic performance has a significant positive effect on firm value.

Environmental Performance and Firm Value

The company's environmental performance describes the company's efforts and policies in managing the environmental impacts of the company's operations. The increasing demands of the public and regulators on environmental issues make non-cyclical consumer sector companies need to consider environmental performance as an important factor of business strategy in maintaining and increasing firm value. According to Yasah, Ajuj, Fardani,

Hidayat, & Ikaningtyas (2024) Companies that integrate sustainability initiatives and report them transparently will gain more support from the public and other stakeholders. Positive environmental performance shows that a company is committed to long-term sustainability.

Good environmental information disclosure in sustainability reports is also a positive signal for investors. Investors who are increasingly aware of sustainability issues tend to give more value to companies that have good and transparent environmental policies in their reporting. This statement is in line with previous studies that state that good environmental performance can reduce the risk of uncertainty and become a competitive advantage and provide long-term economic benefits for companies (Afifah et al., 2021). Thus, environmental performance disclosure will improve the company's reputation and attract investors who care about sustainability issues, which has an impact on increasing the firm value. Referring to this, the hypothesis is formulated as follows:

H2: Environmental performance has a significant positive effect on firm value.

The hypothesis is stated in a research model with independent variables of company economic performance and environmental performance, leverage control variables, and dependent variables of firm value. Therefore, the research model is formulated in Figure 1 below.

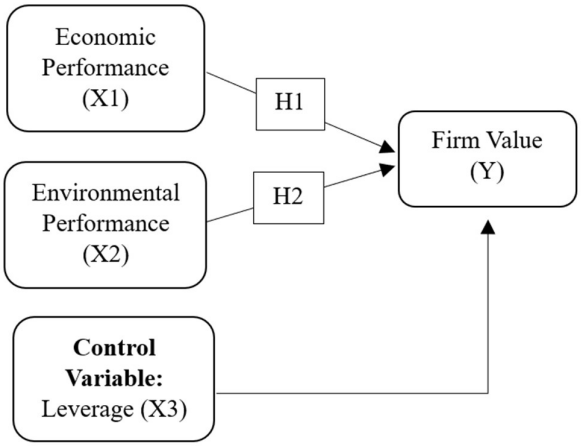

Figure 1. Research Model
Source: Data processed by the author (2025)

3. RESEARCH METHODS

This study uses quantitative methods to test hypotheses that have been formulated based on previous theories and literature using empirical data analyzed using statistical methods (Sugiyono, 2023). The independent variables used are economic performance by measuring Economic Value Added (EVA) and environmental performance is measured by the ESG Index. While the dependent variable is measured by Tobin's Q. Finally, the control variable is measured by the company's debt level (leverage). The operationalization of the variables can be seen in Table 1.

The data used is in the form of financial data in accordance with the variable measurement formula obtained from the Osiris database on the site https://osiris-r1.bvdinfo.com/, sustainability report companies for the 2020-2023 period were obtained fromrespective sitesforeign companies,and share prices obtained fromYahoo Finance site onhttps://finance.yahoo.com/. The ESG Index list was obtained from the Bumi Global Karbon (BGK) Foundation website which can be accessed at the link https://bgkfoundation.org/id. Details of ESG disclosure items can be seen in Table 2.

All data were processed using Microsoft Excel and analyzed using Stata version 14. The analysis of this study was done using panel data regression, which began with descriptive statistical analysis. Based on Napitupulu et al. (2021), the model selection process is carried out in three stages, namely the chow test, the hausman test, and the lagrange multiplier test. After the regression model is obtained, the classical assumption test is carried out to ensure that the regression model used is a good model. The last stage is partial and simultaneous hypothesis and significance testing, as well as interpretation of the determination coefficient. The panel data regression model used in the study is arranged as follows.

$$TQ_{it} = \alpha + \beta 1.EVA_{it} + \beta 2.ESG_{it} + \beta 3.DER_{it} + e$$

Information:
TQ_{it} = Firm value (Tobin's Q)

α	=	Constants	ESG_{it}	=	Environmental performance
$\beta 1, \beta 2, \beta 3$	=	Regression coefficient	DER_{it}	=	Leverage
EVA_{it}	=	Economic performance	e	=	Error Term

Table 1. Operationalization of Variables

Dependent Variable	Definition	Measurement
Firm values	Firm value is an indicator that explains how much the market values the total wealth and growth of a company, by comparing it with the value of its assets (Komarudin, 2020).	*Tobin's Q = (Total Assets + Market Capitalization – Net Worth) / Total Assets* *Description:Market Capitalization = Share price × Number of shares outstanding,*and Net Worth = Total Assets – Total Liabilities (Komarudin, 2020)
Independent Variables	**Definition**	**Measurement**
Economic Performance	Economic performance is one of the main indicators that reflects a company's ability to generate profits and sustainable financial growth (Komarudin, 2020).	*EVA = NOPAT – (WACC × Capital Invested)* *Note: NOPAT = Net Operating Profit After Tax, WACC = Weighted Average Cost Capital, Capital Invested = Total Assets – Current Liabilities* (Komarudin, 2020)
Environmental Performance	A company's environmental performance describes the company's efforts and policies in managing the environmental impact of business operations (Tarumingkeng, 2024).	*Environmental, Social, and Governance*(ESG) Index from the BGK Foundation websitehttps://bgkfoundation.org/id. (Davies, 2024)
Control Variables	**Definition**	**Measurement**
Leverage	*Leverage*shows how much a company uses debt financing for its operations and increases returns to shareholders (Kurniasari & Wibowo, 2017)	*Debt to Equity Ratio (DER) = Total Debt / Total Equity* (Kurniasari & Wibowo, 2017)

Source: Processed data (2025)

Table 2. ESG Index Measurement Items

Environmental (E)	Social (S)	Governance (G)
E1: GHG Emissions	S1: CEO Pay Ratio	G1: Board Diversity
E2: GHG Intensity	S2: Gender Pay Ratio	G2: Board Independence
E3: Energy Usage	S3: Employee Turnover	G3: Incentivized pay
E4: Energy Intensity	S4: Temporary Worker Ratio	G4: Collective Bargaining
E5: Energy Mix	S5: Non-Discrimination	G5: Supplier Code of Conduct
E6: Water Usage	S6: Injury Rate	G6: Ethics & Anti-Corruption Compliance
E7: Environmental Operations	S7: Global Health and Safety	G7: Data Privacy
E8: Climate Oversight / Management	S8: Child and Forced Labor	G8: ESG Reporting
E9: Climate Oversight/Board	S9: Human Rights	G9: Disclosure Practices
E10: Climate Risk Mitigation	S10: Social Corporate	G10: External Assurance
E11: Forestry Corporate Social Responsibility (CSR)	S11: Social Responsibility (CSR)	G11: Tax Transparency

Source: BGK Foundation, processed data (2025)

4. RESULTS AND DISCUSSION

Sample Determination Results

This study targets firms within operating in the consumer non-cyclical sector that were officially listed as issuer on the Indonesia Stock Exchange (IDX), based on data retrieved from the official IDX portal at www.idx.co.id during the period of 2020 to 2023. The sampling process was conducted using a purposive sampling approach, with consideration of previously formulated specific criteria. Detailed information regarding the sample and its characteristics are summarized in Table 3 below.

Table 3. Sample Determination Results

Criteria	Amount
Consumer non-cyclical sector companies listed on the Indonesia Stock Exchange (IDX) in 2020-2023.	86
Consumer non-cyclical sector companies that inconsistently published sustainability reports in their annual reports during 2020-2023	(7)
Consumer non-cyclical sector companies not listed in the BGK Foundation ESG Index during 2020-2023	(61)
Number of companies included in the research sample	18
Number of observation data in the study (over 4 years)	72

Source: Processed data (2025)

Descriptive Analysis

The descriptive analysis is used as an initial step to evaluate the basic characteristics of the data collected in this study, through statistical measures such as mean, standard deviation, lowest value, and highest value (Sugiyono, 2023). This analysis helps to understand the data in depth before proceeding to a more complex analysis. Table 4 provides a detailed summary of the descriptive statistics related to all variables included in the analysis.

Table 4. Results of Descriptive Statistical Tests

Variables	Mean	Std. Dev.	Min	Max
Tobin's Q(Y)	2.042	1.984	0.521	9.654
EVA (X1)	27.365	1.445	24.272	30.261
ESG (X2)	27.736	19.335	7	79
DER (X3)	0.744	0.978	0.001	4.857

Source: Stata 14 output, processed data (2025)

The Tobin's Q (Y) variable as a measurement of the firm value variable produces an average of 2.042, which means that non-cyclical consumer sector companies have good growth prospects and the market values the company higher than its asset value. The standard deviation is 1.984, which shows that the Tobin's Q (Y) variable varies greatly between companies, with scores ranging from a minimum of 0.521 to a maximum of 9.654.

The value of the EVA variable (X1) is the result of a natural logarithm (Ln) transformation from the original value to overcome the large unit scale, namely billions to trillions. The average EVA (X1) reached 27.365 and all companies in the sample had positive EVA, indicating that the companies were able to generate optimal economic added value. Then, EVA showed a minimum of 24.272 to a maximum of 30.261, with a standard deviation of 1.445 indicating a fairly low variation.

The value of ESG variable (X2) as a proxy for environmental performance has an average value of 27.736, which shows that overall, non-cyclical consumer sector companies are still lacking in managing environmental issues as reflected in the low ESG index. The high standard deviation of 19.335 means that ESG variation is very high, with a minimum score of the ESG variable (X2) of 7 and a maximum score of 79.

Furthermore DER variable (X3) as a measure of leverage has an average of 0.744 indicating that non-cyclical consumer sector companies tend to use debt in their capital structure. A very high standard deviation of 0.978 indicates that the

DER variable (X3) varies greatly and the range of values is wide between companies, with a minimum value of 0.001 and a maximum value of 4.857.

Panel Data Regression Analysis

This analysis includes cross-section and time-series analysis, so that the analysis can be done more deeply because it observes changes in time as well as differences between companies. The analytical procedure is initiated by estimating three alternative panel regression models: the Fixed Effects Model (FEM), Common Effects Model (CEM), and Random Effects Model (REM). A series of model selection tests is then conducted to identify which specification aligns most appropriately with the underlying structure and behavior of the dataset used in this research (Napitupulu et al., 2021). Details of the results of the regression model selection test are shown in Table 5.

Table 5. Results of Regression Model Selection Test

Model Test	Prob>Chi^2	Sig.	Conclusion
Chow Test	0.000	0.05	FEM
Hausman test	0.954	0.05	REM
LM Test	0.000	0.05	REM

Source: Stata 14 Output, processed data (2025)

The initial step in selecting a regression model is done by applying Chow test, which aims to identify whether the CEM or FEM approach is more appropriate. If the Chi-square probability value exceeds the 5% significance level (α = 0.05), then CEM is considered more appropriate to use. In contrast, when the p-value falls below the 0.05 threshold, the FEM is considered more suitable (Napitupulu et al., 2021). Referring to the results presented in Table 5, the Prob > Chi^2 is 0.000 below the 0.05 significance level, thereby indicating that FEM is the preferred estimation method for this analysis stage.

After that, the testing process is continued with the Hausman test to evaluate whether the more appropriate model to use isFEM and REM. The testing criteria are, if the Chi-square probability value is greater than 0.05, then REM is considered more appropriate, conversely, if the value is below 0.05, then FEM is maintained as the best model (Napitupulu et al., 2021). The test results show that the Prob > Chi^2 value is 0.954 > 0.05, so it is concluded that the REM model is more suitable for use.

The final determination is Lagrange Multiplier (LM) test to compare the feasibility between CEM and REM models. According to the decision rule, when the Prob > Chi^2 test exceeds 0.05, the CEM is considered appropriate. Conversely, if the value falls below 0.05, the REM is preferred (Napitupulu et al., 2021). In this study, the result of the Lagrange Multiplier (LM) test produced a Prob > Chi^2 value of 0.000, indicating strong statistical grounds for selecting the REM. Therefore, REM is adopted as the most suitable method for conducting the panel regression in this research.

Classical Assumption Test

Testing is done to ensure that the established regression model has met the criteria of a good model. In the context of panel data, normality testing is not a primary requirement for a model to be considered BLUE (Best Linear Unbiased Estimator). Moreover, the regression model of this study is a REM estimated using Generalized Least Squares (GLS), which does not require the data to be normally distributed because the GLS estimation method remains consistent even if it is not normally distributed (Baltagi, 2005); (Gujarati, 2004). Meanwhile, autocorrelation testing is not applied, because it is generally only relevant to time series data, not to panel data (Basuki, 2021). Therefore, research on panel data is sufficient to test for multicollinearity and heteroscedasticity.

To identify potential multicollinearity, a diagnostic test is applied to assess whether any strong linear relationships exist among the explanatory variables. The absence of such interdependence suggests that the model is not affected by multicollinearity. In this study, the approach used refers to the Variance Inflation Factor (VIF) value which ideally should be below 10, as well as the Tolerance (1/ VIF) which is required to be greater than 0.10 (Basuki, 2021). The results of the

multicollinearity test are presented in Table 6 below.

Table 6. Multicollinearity Test Results

Variables	VIF	1/VIF (Tolerance)
EVA (X1)	3.60	0.298
ESG (X2)	3.18	0.315
DER (X3)	1.57	0.639
Mean VIF	2.78	

Source: Stata 14 Output, processed data (2025)

Referring to the outcome of the multicollinearity diagnostics, all independent variables were recorded to have VIF values below 10 and Tolerance values (1/VIF) exceeding 0.1, with an average VIF value of 2.78. This finding indicates that multicollinearity is not present within the regression, it can be inferred that the independent variables do not exhibit a strong linear relationship with one another.

Furthermore, heteroscedasticity testing serves to identify a variance inhomogeneity of the error (residual) in the regression model. A p-value above 0.05 suggests that heteroscedasticity is not present, and the model meets the assumption of equal variance. In contrast, a p-value below that threshold may indicate the presence of heteroscedastisity (Basuki, 2021). Table 7 below shows the results of heteroscedasticity testing.

Table 7. Results of Heteroscedasticity Test

Cross-sectional time-series GLS regression		
Panels	=	Homoscedastic
Correlation	=	no autocorrelation
Number of obs	=	72
Number of groups	=	18
Time periods	=	4
Prob>Chi2	=	0.1183

Source: Stata 14 Output, processed data (2025)

Basically, the GLS method has also been designed to overcome violations of classical assumptions such as heteroscedasticity and autocorrelation (Baltagi, 2005). Referring to the heteroscedasticity test results presented in Table 7, the probability value (Prob > Chi^2) is 0.1183, which exceeds the 0.05 significance threshold. This outcome indicates that the panel regression model, as estimated using the GLS approach, does not exhibit heteroscedasticity, suggesting that the residuals are homoscedastic.

Panel Data Regression Equation

Following a series of model specification tests, the Random Effect Model was identified as the most suitable approach for capturing the underlying patterns of the dataset utilized in this research. The regression outcomes derived from the REM estimation are detailed in Table 8 below.

Table 8. Panel Data Regression Model

Random Effects GLS Regression				
Tobin's Q (Y)	**Coeff.**	**Std. Error**	**z**	**P > |z|**
Cons.	-8,351	4.5064	-1.85	0.064
EVA (X1)	0.410	0.1655	2.48	0.013
ESG (X2)	-0.030	0.0079	-3.91	0.000
DER (X3)	0.022	0.1121	0.19	0.847
R-square overall	0.067			
Wald Chi2 (3)	17.84			
Prob>Chi2	0.0005			

Source: Stata 14 Output, processed data (2025)

The structure of the panel regression model applied in this analysis is presented as follows:

TQ_{it}= -8.351 + 0.410.EVA_{it} – 0.030.ESG_{it} + 0.022.DER_{it}+ e

The constant value of -8.351 explains that if it is not influenced by the EVA, ESG, and DER variables, the Tobin's Q (Y) value variable is estimated to be negative at -8.351. Then the coefficient value of the EVA (X1) is 0.410, meaning that every 1% increase in the EVA variable and other variables are constant, the Tobin's Q (Y) variable will increase by 0.410 points. Simply put, an increase in the company's economic performance tends to drive a more significant appreciation of the firm value by the market.

The coefficient value of the ESG (X2) is -0.030, which can be interpreted as if there is an increase in the ESG variable by 1 point and other variables are constant, it will decrease the

value of the Tobin's Q variable (Y) by 0.030 points. This indicates that the increase in ESG implementation as environmental performance is not necessarily responded positively by the market, thus reducing the firm value. Finally, the coefficient value of the DER variable (X3) is 0.022. This means that if there is an increase in the DER variable (leverage) by 1 point and the value of other variables does not change, it will be positively correlated with the increase in the Tobin's Q value (Y) by 0.022 points.

Partial Z Test

In the REM regression model, it is estimated using the GLS method using the z test as a partial hypothesis test because GLS produces coefficients that are normally distributed (Wooldridge, 2010). The testing criteria is if the p-value < α (0.05) then the hypothesis is considered proven. Based on Table 8, the test results on the economic performance variable proxied by EVA (X1) show a positive coefficient value of 0.410 with a p-value of 0.013 < 0.05. This indicates that **H1 is accepted**, which explains that economic performance is proven to provide a significant positive contribution to increasing firm value. When the company's economic performance reflected by EVA provides increased added value, the firm value will also increase.

Then for the environmental performance variable proxied by ESG (X2) it produces a negative coefficient, which is -0.030 with a p-value of 0.000 < 0.05 as a significance level. This finding indicates that **H2 is rejected**, because although environmental performance shows a a statistically significant effect on firm value, the relationship formed is actually opposite to the previously formulated hypothesis. In other word, an increase in ESG scores in companies in this research sample will be followed by a decrease in firm value.

In the leverage variable with DER measurement (X3) as a control variable, it has a positive coefficient of 0.022 and a p-value of 0.847> 0.05. This means that, despite having a positive relationship, leverage is proven to exhibits an insignificant relationship with firm value. This finding may reflect that testing the relationship between economic performance and environmental performance with firm value runs independently, without being significantly influenced by leverage.

Wald-Chi Square Test

Simultaneous hypothesis testing using the Wald-Chi Square test, because the model estimation was carried out using GLS. The testing criteria are if Prob > Chi^2 is smaller than α (0.05) it indicates that the independent variables collectively exert a statistically significant effect on the dependent variable. (Wooldridge, 2010). Based on Table 8, it displays the value Wald Chi^2 of 17.84 with Prob > Chi^2 of 0.0005 < 0.05. The findings suggest that, when evaluated collectively, the variables incorporated in the model economic performance (EVA), environmental performance (ESG), and leverage (DER) exert a statistically significant impact on firm value as reflected by Tobin's Q.

Coefficient of Determination (R^2)

The coefficient of determination reflects the proportion of variance in the dependent variable that can be accounted for by the joint contribution of the independent variables within the regression model. This metric has a value between 0 and 1, reflecting the extent to which the model is able to capture the observed variation (Napitupulu et al., 2021). The regression model produces an overall R-square (R^2) of 0.067. That means that the independent variables of economic performance (EVA), environmental performance (ESG), and leverage control variables (DER) in this model can explain the limited firm value variable (Tobin's Q) of only around 6.7%. The explanatory power of the regression model in this study appears limited in capturing the variation in firm value. Approximately 93.3% of the changes in firm value are likely driven by external variables beyond those incorporated in the current model.

After all stages of hypothesis testing have been carried out along with their interpretative analysis, a summary of the main findings of this study is presented briefly in Table 9. A more detailed explanation of the meaning,

implications, and relevance of these results will be described systematically in the discussion section, in accordance with the theoretical framework and empirical context used.

Table 9. Hypothesis Testing Results

	Hypothesis	*P-value*	Results
H1	Economic performance has a significant positive effect on firm value	0.013	Accepted (Significant Positive)
H2	Environmental performance has a significant positive effect on firm value	0.000	Rejected (Significant Negative)

Source: Processed data (2025)

Economic performance has a significant positive effect on firm value

The improvement of economic performance as measured by the Economic Value Added (EVA) indicator clearly contributes to the increase in the firm value, which is proxied by the Tobin's Q ratio. EVA determines how well a company is able to generate economic profit after all capital costs are taken into account. When a company reports a positive EVA value, it indicates that the entity in question has succeeded in increasing value for investors after determining the cost of all capital used. According to signaling theory, this condition is a positive signal that investors see as a sign of efficient and promising company management work, which builds confidence in the company's long-term performance (Wibowo et al., 2022).

In this regard, the study findings support that EVA as a comprehensive and long-term indicator of economic performance is more responsive to investor preferences. Investors see companies with positive economic performance making a good market response. This condition encourages investor interest in investing their capital, which ultimately has an impact on increasing stock prices. This increase in stock prices also contributes to increasing the overall value of the company. Supported by a study conducted by Tobing et al. (2022); Hill & Adisetiawan (2023) which states that EVA consistently has a positive relationship to firm value (Tobin's Q). In addition, in the context of the primary consumer goods sector, economic performance is an important factor indicating that this sector is based on market-needed products with high competition and relatively thin profit margins. As a result, companies that are able to achieve superior economic performance through positive EVA will receive greater appreciation, because they are considered to have a stable, efficient business and are able to develop sustainably in various economic conditions.

From the perspective of stakeholder theory, successful economic performance is not only important for investors but also has implications for other stakeholders, such as employees, consumers, regulators, and the general public. Stakeholders' trust will increase consistently by viewing companies with high EVA as entities that are able to adapt to changing economic conditions (Adyaksana et al., 2024). It also legitimizes business practices in the economic system, as it is in line with market expectations, such as profitability and long-term value creation. Thus, it can be said that EVA reflects internal indicators of economic performance as well as external indicators that influence stakeholder and market perceptions, thus driving business growth and corporate value, especially in strategic manufacturing companies such as the consumer non-cyclical sector.

Environmental performance has a significant negative effect on firm value

This study found that environmental performance as measured by the ESG index actually significantly reduces the value of companies in the consumer non-cyclical sector. This study is in line with Qurniasih et al. (2025), with the same results, ESG significantly has a negative effect on firm value. The reason is that ESG implementation creates additional costs, such as investment in environmentally friendly technology, waste processing, environmental certification, social programs, and the implementation of a more transparent reporting system. All of this adds to the company's operational burden, including annual depreciation costs on environmental assets that directly cut into the company's profits. This has

an impact on the market which is less responsive, causing the firm value to decline.

Based on signal theory, sustainability report disclosure and ESG implementation should be a positive signal to stakeholders regarding the company's commitment to determining the sustainability of long-term business activities. However, in reality, especially in the primary consumer goods sector, this is not always well received by the market. Investors tend to be more interested in information that provides direct returns on investment and benefits compared to non-financial information, so that ESG or sustainability aspects have not been considered as investment decisions, especially with the assumption that its implementation incurs quite large additional costs. This shows that the signal sent through environmental disclosure is not fully effective and actually reduces the firm value (Margana & Wiagustini, 2024).

From a legitimacy perspective, it means that business entities in the primary consumer goods sector have not succeeded in integrating ESG practices as part of a strategy to gain legitimacy from society and the market. Disclosure of sustainability reports and increasing ESG indexes in this sector are still symbolic and have not become real economic values, so their influence on firm value is weak. In this sector, the main focus of business strategy is distribution efficiency, profit creation, product excellence, and brand validity. This is reinforced by the findings Feliyanti (2022), which states that sustainability disclosure tends to have a significantly positive impact on firm value in sectors with high materiality, such as energy and mining, because their environmental impact is much greater.

The small number of primary consumer goods sector companies with high ESG scores is also an indicator that ESG has not been considered a primary strategy in long-term business continuity. The coefficient value of the ESG variable in this study is relatively small, indicating that its negative influence is not too large, this actually shows that sustainability issues such as ESG disclosure have not become the main determinant in investment decision making. This is supported by research Larasati & Mawardi (2024), which reveals that ESG has not been fully considered by stakeholders in decision-making in manufacturing companies.

5. CONCLUSION AND SUGGESTIONS

This study was conducted to analyze the extent to which economic performance, represented by the Economic Value Added (EVA) indicator, and environmental performance measured using the Environmental, Social, and Governance (ESG) index, influences firm value as reflected by the Tobin's Q ratio. The findings of this study indicate that economic performance provides a significant positive contribution to increasing the value of companies in the consumer non-cyclical sector. Good economic performance reflects that the company is managed efficiently and has long-term profit prospects, thus becoming a positive signal for investors and influencing the increase in firm value. However, on the other hand, environmental performance reflected in ESG has not been a primary consideration for investors in the n to increasing the value of companies in the consumer non-cyclical sector, and even tends to be considered a cost burden, which reduces profitability, thus reducing market perception and firm value.

Theoretically, this study provides insight into the development of literature related to the relationship between corporate value, economic performance, and sustainability, in this case environmental performance, and its relevance to signal theory, stakeholder theory, and legitimacy theory. This study also supports empirical findings that market power and positive responses come from good economic performance in the long term, but have not fully responded to ESG implications, especially in companies in sectors that focus more on product distribution efficiency, such as the primary consumer goods sector. From a practical perspective, the results of this study are very important for the management of primary consumer goods companies to maintain and increase EVA value, as a reflection of economic performance. In addition, evaluating the implementation of ESG strategies that are not

only symbolic, but also able to generate economic value, so that they can be responded to positively by the market. For investors, these results serve as an illustration and consideration of whether non-financial information, such as ESG, is a decision to invest and has been reflected effectively in the company's market value.

This study has several limitations. First, the scope of observation is only focused on the n to increasing the value of companies in the consumer non-cyclical sector and is limited to 2020-2023. Therefore, future research is advised to increase the observation period and test other sector companies, such as consumer cyclical, transportation and logistics, and others, so that the research results are more general and can be compared between sectors. Second, the independent variables used have not been able to provide a comprehensive picture of the dynamics of changes in the dependent variable. Therefore, for future research, it is recommended to consider adding other variables, such as the role of mediating or moderating variables. These additions are expected to enrich the understanding of other variables that contribute to the formation of firm value, or the use of other longer term proxies as measurements of firm value variables. Third, the analysis used is only a quantitative approach, so it does not reflect the direct perception of company management or investors on sustainability issues. Thus, future research is advised to use mixed methods to combine quantitative and qualitative analysis, which is expected to provide in-depth insights and more accurate results.

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