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The Effect of Green Finance Implementation on the Value of Transportation Companies Listed on the Indonesia Stock Exchange

Faudya Nurul Fatima^{1*}, Darman², Vitayanti Fattah³, Fera⁴

¹Universitas Tadulako, Palu, Indonesia, faudyannurulfatima@gmail.com

²Universitas Tadulako, Palu, Indonesia, Darman_tadulako@yahoo.com

³Universitas Tadulako, Palu, Indonesia, Vitayanti@untad.ac.id

⁴Universitas Tadulako, Palu, Indonesia, Fera@untad.ac.id

*Corresponding Author: faudyannurulfatima@gmail.com¹

Abstract: This study aims to analyze the impact of Green Finance implementation on the value of transportation subsector companies listed on the Indonesia Stock Exchange (IDX) for the 2021–2023 period. Green Finance is measured using the Green Finance Index (GFI) based on six sustainability indicators, while company value is proxied by the Price to Earnings Ratio (PER), Price to Book Value (PBV), and Tobin's Q. The research sample consisted of 9 companies selected through purposive sampling, with simple regression analysis as the testing method. The results indicate that Green Finance implementation has no significant effect on company value. Descriptive trends also show that high levels of GFI implementation do not always align with increases in PER, PBV, or Tobin's Q, so that sustainability practices are still perceived by the market as a short-term cost burden rather than a driver of added value. This finding confirms that Green Finance's contribution to the value of transportation companies is still limited. The practical implication of this study is the need for regulatory support and strengthening the integration of sustainability practices so that Green Finance can increase company credibility in the eyes of investors and encourage long-term value creation.

Keywords: Green Finance, corporate value, transportation companies, Indonesia Stock Exchange, sustainability.

INTRODUCTION

In a global context that increasingly emphasizes the importance of sustainability, companies are faced with the challenge of operating in an environmentally friendly manner. Environmental crises, such as climate change and pollution, have pushed companies to implement sustainable practices, including the implementation of Green Finance. The large number of transportation companies in Indonesia currently reflects the high level of public mobility and the ever-increasing need for logistics. This situation has encouraged the growth

of transportation companies, exploiting this opportunity as a source of income and creating jobs in several regions.

The existence of this industry also has a negative impact on the surrounding environment, as companies engage in environmental exploitation, which, if left unchecked, can lead to severe environmental pollution (Sari et al., 2020). This situation highlights the need for environmental conservation policies as part of a long-term strategy to improve financial performance. Companies that demonstrate environmental responsibility tend to receive recognition from stakeholders and improve their public image (Ningsih et al., 2021). However, in reality, not all companies are willing to incur environmental costs, as such costs automatically reduce profits. Therefore, Green Finance exists as a solution to promote environmental sustainability (Hertati et al., 2022).

Corporate value is an important concept for investors, as it serves as an indicator for the market to assess a company as a whole (Mulyani et al., 2024). Corporate value reflects stakeholders' perceptions of the company's performance and prospects. This assessment serves as a crucial basis for decision-making by investors and other stakeholders (Setiadi, 2021). In this context, implementing Green Finance not only contributes to environmental preservation but can also strengthen a company's reputation and increase its attractiveness to investors. By adopting sustainability principles, transportation companies have the opportunity to demonstrate a long-term commitment to social and environmental responsibility, which ultimately has a positive impact on the company's market value.

Green Finance is part of the implementation of Sustainable Development Goals (SDGs) principles in the business sector, including in the transportation industry listed on the Indonesia Stock Exchange (IDX). This concept is gaining widespread attention because it integrates sustainability aspects into a company's financial activities. According to Urban and Wojcik (2019) cited in Yulianti et al. (2022) Green Finance is a process of allocating funds or investments that prioritizes environmental protection, climate change mitigation, the use of renewable energy, and responsible management practices across various industrial sectors.

He et al. (2019) in Yulianti et al. (2022) explain that green finance encompasses financing activities, both through investments and loans, that focus on the environmental impact of these activities. In the context of transportation companies, the implementation of Green Finance aims to encourage environmentally friendly business activities and increase social responsibility towards the surrounding environment. Thus, Green Finance not only plays a role in supporting the company's economic growth but is also expected to increase company value through positive contributions to environmental sustainability.

Based on the background outlined above, this study was conducted with the aim of analyzing the impact of Green Finance implementation on the value of transportation companies listed on the Indonesia Stock Exchange (IDX) (2021-2023).

Stakeholder Theory

According to Freeman (1984), "a company is not only responsible to shareholders, but also to all parties with an interest in the company, such as customers, employees, the government, the community, and the environment." Stakeholder theory is also considered a company's strategic plan to maintain sustainable relationships with various parties, such as investors, the government, suppliers, customers, the community, and the environment (Angelina & Nursasi, 2021). This theory relates to corporate values, where companies must recognize their responsibility to the environment. By voluntarily incurring costs for environmental management, companies demonstrate a positive environmental commitment. Disclosure of environmental cost allocation is considered positive and has the potential to increase company value in the future (Agustina, 2023).

Legitimacy Theory

Legitimacy is a factor that is interconnected between companies and society. Companies strive to ensure their operational activities continue while remaining in accordance with prevailing societal norms. Companies must voluntarily provide information on their activities if such reporting is expected by the public (Kuswiratmo, 2016). In efforts to increase corporate value, companies require legitimacy from the community groups in which they operate. A company's value is measured from the perspective of stakeholders. The analyzed corporate values serve as the basis for decision-making (Setiadi, 2021). According to Asjuwita & Agustin (2020), legitimacy theory requires companies to operate in accordance with accepted social norms, taking into account the rights of investors and society as a whole.

Green Finance

Green finance is a form of financing that supports environmentally friendly projects with the primary goal of reducing greenhouse gas emissions and air pollution, while creating a balance between economic growth and environmental sustainability (Uddin, 2016:79 in Yulianti et al., 2022). Green finance, also known as sustainable finance, emerged in response to global environmental challenges and growing awareness of the importance of maintaining economic, social, and environmental sustainability (Rahmani et al., 2024). This concept focuses not only on economic aspects but also encourages business actors to be more environmentally responsible, so that business activities are not solely oriented towards financial profit. In its implementation, Green Finance refers to a number of Principles such as sustainability, energy efficiency, low-carbon energy use, and a long-term view of environmental impacts are also key components of this approach. Furthermore, financial instruments such as green bonds and green loans, along with social and environmental accountability practices, sustainable insurance, green technology financing, and the integration of environmental factors into financial decision-making are key components of this approach. Green finance is expected to be an effective strategy for driving sustainable economic growth and enhancing corporate value in the eyes of stakeholders.

Company Value

Company value reflects the market's perception of a company's ability to create future value. According to Sartono (2010), company value can be measured through ratios such as the Price to Earnings Ratio (PER), Price to Book Value (PBV), and Tobin's Q. Company value is also often used as a primary indicator to assess a company's ability to increase shareholder wealth, as reflected in optimizing the present value of future cash flows. The higher the company value, the greater investor confidence in the company's prospects (Sambo & Rahma, 2022).

Khoeriyah (2020) states that company value is the amount potential investors would be willing to pay if the company were sold. Therefore, market perception is crucial because it influences a company's attractiveness to investors. Furthermore, Yulimtinan and Atiningsih (2021) state that company value is the amount potential investors would be willing to pay if the company were sold. Therefore, market perception is crucial because it influences a company's attractiveness to investors.

The Effect of Green Finance on Firm Value

Green Finance is a financial approach that aims to support sustainable economic development through environmentally friendly practices. This approach involves integrating environmental, social, and governance (ESG) factors into a company's financing strategy. Research by Yulianti et al. (2022) shows that Green Finance has a significant positive effect on the value of infrastructure sector companies listed on the IDX, contributing 24%.

Similar findings were obtained by Ifadhoh and Yuliana (2024), who showed that Green Finance and financial performance significantly influence firm value in the Consumer Non-Cyclicals sector, although environmental performance individually showed no significant effect. However, Rizky Dwi Alfikri and Susyani (2024) found a different result, stating that Green Finance had no effect on firm value in the basic industry and chemical sectors, although firm size and leverage showed a positive influence.

Furthermore, a bibliometric study by Rahmani et al. (2024) showed that the topics of Green Finance, sustainable development, and green bonds are currently gaining attention in the scientific literature and are expected to continue to grow. This strengthens Green Finance's position as a strategic instrument for increasing company value through positive image creation, energy efficiency, and compliance with environmental regulations. Based on this, the following hypotheses are formulated:

H_a: Green Finance has an impact on company value in transportation companies listed on the IDX during the 2021–2023 period.

H₀: Green Finance has no impact on company value in transportation companies listed on the IDX during the 2021–2023 period.

METHOD

This study aims to analyze the effect of Green Finance implementation on the value of transportation companies listed on the Indonesia Stock Exchange (IDX) during the 2021–2023 period. The population in this study was all companies belonging to the transportation subsector and listed on the IDX during that period, totaling 36 companies.

The data used was secondary data, consisting of financial reports and annual reports obtained from the official IDX website (www.idx.co.id) and the official websites of each company. The research data was in panel data format, a combination of cross-sectional data (nine transportation companies as the unit of analysis) and time series data (a three-year observation period, 2021–2023). This panel data format allows for a more comprehensive analysis because it captures differences between companies as well as the dynamics of changes in financial value over time.

This study examined two main variables: green finance and firm value. Green finance is measured based on activities and disclosures related to sustainable finance, such as Carbon Emission, Green Rewards, Green Building, Reuse/Recycle/Refurbish, Paperless, and Green Investment listed in the annual report or sustainability report for the 2021–2023 period. Meanwhile, company value is measured using three market ratios, namely Price to Earnings Ratio (PER), Price to Book Value (PBV), and Tobin's Q. According to Ratusasi (2021), the sampling technique uses the Purposive Sampling method, namely a sampling technique based on certain criteria relevant to the research objectives. The criteria used are as follows:

Table 1. Purposive Sampling Criteria for Population and Sample

No.	Sample Selection Criteria	Number of Eligible Companies	Description
1	Transportation sub-sector companies listed on the Indonesia Stock Exchange (IDX) in 2021–2023	36 Companies	Total population of the transportation sector on the IDX
2	Companies with green finance-related activities or disclosures in their annual/sustainability reports	20 Companies	Such as, provision of environmentally friendly fleets, green investment, ESG reports
3	Companies that published annual reports during 2021–2023	(Hypothetical)	Based on public data on the IDX and company websites

4	Companies that met all purposive sampling inclusion criteria	9 Companies	Final sample size used in the study
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Based on these criteria, of the 36 companies in the population, nine met the criteria and were selected as samples for the study. The list of sample companies is as follows:

Table 2. List of Research Sample Companies

No.	Code	Company name
1	CMPP	AirAsia Indonesia Tbk.
2	HELI	Jaya Trishindo Tbk.
3	ASSA	Adi Sarana Armada Tbk.
4	BIRD	Blue Bird Tbk.
5	IMJS	Indomobil Multi Jasa Tbk.
6	LRNA	Eka Sari Lorena Transport Tbk.
7	SAFE	Steady Safe Tbk.
8	TAXI	Express Transindo Utama Tbk.
9	TRJA	Transkon Jaya Tbk.

Operational Definition of Variable

Green Finance (X)

Green Finance is a form of corporate financial support for activities that support environmental sustainability and the transition to a green economy. This concept aims to reduce environmental impact without hindering economic growth by funding environmentally friendly and sustainable projects (Harliani, 2024).

In this study, Green Finance is measured using the Green Coin Rating (GCR) indicator developed by the Institute of Development and Research in Banking Technology (IDRBT) (Khodijah et al., 2023). The GCR consists of six indicators that reflect corporate practices in supporting a low-carbon economy, namely:

1. Carbon Emission: Reducing carbon emissions through low-carbon technology and energy.
2. Green Rewards: Incentives or rewards for contributions to the environment.
3. Green Building: Implementation of environmentally friendly buildings.
4. Reuse/Recycle/Refurbish: Reusing and reprocessing goods or waste.
5. Paperless: Reducing paper use through process digitization.
6. Green Investment: Investment in sustainable projects such as renewable energy.

Each indicator is scored using a nominal scale:

Score 1 if the indicator is disclosed in the annual report.

Score 0 if not disclosed.

The Green Finance Index (GFI) value is calculated using the formula:

$$GFI = \frac{\text{Number of Indicators Disclosed}}{6}$$

The GFI value is used to measure the level of green finance implementation in the transportation companies sampled in this study. A value closer to 1 reflects better green finance implementation, while a value closer to 0 indicates a low level of sustainability commitment.

Firm Value (Y)

Firm value reflects investors' perceptions of a company's success in managing its resources and serves as a key indicator for stakeholders when making investment decisions. In this context, a high firm value reflects good future business prospects.

This study measures firm value using three financial indicators:

1. Tobin’s Q

This ratio is used to assess the efficiency of a company's asset management by comparing the market value and book value of assets. The calculation formula is as follows:

$$\text{Tobin's Q} = \frac{(MVE+D)}{(EBV+D)}$$

Description:

MVE = Market Value of Equity (Closing Price x Number of Outstanding Shares)

D = Total Debt (book value)

2. EBV = Total Assets (book value) Price to Book Value (PBV)

PBV measures how much the market values a company's book value. The higher the PBV ratio, the higher the company's market value. The formula:

$$\text{PBV} = \frac{MPS}{BPS}$$

Information:

MPS = Market Price per Share

3. BPS = Book Value per Share Price to Earnings Ratio (PER)

PER describes the share price relative to net earnings per share, which reflects market expectations of the company's earnings growth. The formula:

$$\text{PER} = \frac{MPS}{EPB}$$

Information:

MPS = Market Price per Share

EPS = Earnings per Share

RESULT AND DISCUSSION

Descriptive Statistical Tests

Statistics serve to present descriptions and information related to research data, including sample size, minimum value, maximum value, mean value, and standard deviation. The descriptive statistics in this study can be presented as follows:

Green Finance

Table 1. Results of Descriptive Statistics Test of Green Finance

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
2021	9	.167	.833	.50000	.204124
2022	9	.167	1.000	.57422	.222198
2023	9	.333	1.000	.64811	.211546
GREEN FINANCE	27	.167	1.000	.57411	.213491
Valid N (listwise)	9				

Source: SPSS data processing results, 2025

Descriptive data shows an increasing trend in Green Finance implementation from year to year. In 2021, the average remained at 0.50, then rose to 0.57 in 2022, and reached 0.65 in 2023. This increase indicates that transportation companies are increasingly paying attention to sustainability aspects, although there is variation between companies. The relatively moderate spread of values (standard deviation around 0.20–0.22) indicates differences in the level of implementation between companies, but still within reasonable limits.

Company Value

Table 2: Results of Descriptive Statistical Tests of Company Value

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
2021	9	-591.549	460.000	27.01300	275.609710
2022	9	-34.247	26.653	4.06678	17.556062
2023	9	-125.000	511.392	52.08933	178.364526
PER	27	-591.549	511.392	27.72304	183.454795
2021	9	-1.983	6.738	1.89963	2.994714
2022	9	-2.363	8.322	1.51807	3.069923
2023	9	-5.630	8.923	1.44167	4.074185
PBV	27	-5.630	8.922	1.61967	3.287611
2021	9	.481	5.779	1.96978	1.597721
2022	9	.533	7.153	1.94989	2.058652
2023	9	.342	7.594	2.08244	2.199660
TOBIN'S Q	27	.342	7.594	2.00070	1.892557
Valid N (listwise)	9				

Source: SPSS data processing results, 2025

Descriptive analysis shows that the value of transportation companies on the IDX fluctuated during the 2021–2023 period. The average PER appears unstable with significant variation, indicating significant differences between companies in generating profits. The PBV value is relatively in the range of 1–2, indicating the market values companies at or slightly above their book value, although some companies have negative values, indicating low investor appreciation. Meanwhile, Tobin's Q consistently hovers around 2, reflecting that transportation companies are generally valued above their book value. However, the high standard deviation across all indicators indicates that the performance and prospects of transportation companies remain uneven.

Company Descriptive Analysis Green Finance

Table 3: Results of Descriptive Analysis of Green Finance per Company

Company Name	Year	GREEN FINANCE	Nilai GFI	Information
AirAsia Indonesia Tbk.	2021	0.6666667	1	Tall
	2022	0.5	0	Low
	2023	0.5	0	Low
Jaya Trishindo Tbk.	2021	0.3333333	0	Low
	2022	0.5	0	Low
	2023	0.3333333	0	Low
Adi Sarana Armada Tbk.	2021	0.1666667	0	Low
	2022	0.1666667	0	Low
	2023	0.5	0	Low
Blue Bird Tbk.	2021	0.6666667	1	Tall
	2022	1	1	Tall
	2023	1	1	Tall
Indomobil Multi Jasa Tbk.	2021	0.5	0	Low
	2022	0.5	0	Low

Company Name	Year	GREEN FINANCE	Nilai GFI	Information
Eka Sari Lorena Transport Tbk.	2023	0.8333333	1	Tall
	2021	0.5	0	Low
	2022	0.6666667	1	Tall
	2023	0.6666667	1	Tall
Steady Safe Tbk.	2021	0.3333333	0	Low
	2022	0.6666667	1	Tall
	2023	0.8333333	1	Tall
Express Transindo Utama Tbk.	2021	0.5	0	Low
	2022	0.6666667	1	Tall
	2023	0.6666667	1	Tall
Transkon Jaya Tbk.	2021	0.8333333	1	Tall
	2022	0.5	0	Low
	2023	0.5	0	Low

The table shows that the average Green Finance score increased from 0.50 in 2021 to 0.57 in 2022, then rose again to 0.65 in 2023. This indicates that transportation companies are generally paying increasing attention to sustainability practices year after year. When viewed by company, Blue Bird has been the most consistent, with its score rising to 1.00 in 2022–2023. Transkon Jaya had a high score in 2021 (0.83) but declined the following year. Steady Safe and Express Transindo also increased to the high category, while Adi Sarana Armada and Jaya Trishindo remain at the low level. This indicates that the implementation of green finance in the transportation sector is improving, but not evenly across all companies.

Company Value

Table 4. Results of Descriptive Analysis of Company Value per Company

Company Name	Year	COMPANY VALUES		
		PER	MBV	TOBINS'S Q
AirAsia Indonesia Tbk. Jaya Trishindo Tbk.	2021	-0.8417971	-0.3777202	2.392699424
	2022	-1.2434428	-0.30102	2.655201077
	2023	-1.2351779	-0.1690232	2.510351786
Adi Sarana Armada Tbk.	2021	81.5	1.923427	1.432376865
	2022	-2.7184466	4.2475947	1.785936058
	2023	511.39241	6.0548447	2.372963642
Blue Bird Tbk. Indomobil Multi Jasa Tbk.	2021	81.048289	6.7381082	2.67950355
	2022	26.652821	1.1114053	1.037871492
	2023	27.545328	1.1204708	1.042738687
Eka Sari Lorena Transport Tbk.	2021	460	0.670781	0.743157652
	2022	9.8601399	0.6593468	0.735574105
	2023	9.8895028	0.7953136	0.847936024
Steady Safe Tbk. Express Transindo Utama Tbk.	2021	-591.5493	0.9539908	0.992907229
	2022	18.854415	0.6183014	0.937307883
	2023	7.2614108	0.5114647	0.919385206
Company Name	2021	-2.5946767	0.3529806	0.480859359
	2022	-3.0805428	0.3847705	0.532610149
	2023	0.5194917	0.2302286	0.342195439

Company Name	Year	COMPANY VALUES		
		PER	MBV	TOBINS'S Q
AirAsia Indonesia Tbk.	2021	198.1982	-1.9833173	1.681728542
	2022	13.074205	-2.3629702	1.717594601
	2023	11.013216	-5.6300266	2.068459159
Jaya Trishindo Tbk. Adi Sarana Armada Tbk.	2021	2.7100271	6.7200479	5.779346782
	2022	-34.246575	8.3217778	7.153313761
	2023	-125	8.9224848	7.593942467
	2021	14.646962	2.0983743	1.545461372
	2022	9.4488189	0.9834281	0.993356985
	2023	27.419355	1.1391591	1.045359657

The company valuation table shows a diverse range of conditions. Some companies, such as Blue Bird and Adi Sarana Armada, recorded very high PERs in 2021, indicating high market expectations for their profit growth. Conversely, several companies, such as AirAsia, Indomobil, and Eka Sari Lorena, recorded negative PERs due to losses. In terms of PBV, most companies are in the 1-2 range, which is considered reasonable. However, some are very high, such as Express Transindo, making them seem expensive. Others, such as Steady Safe, are negative due to their equity deficit. For Tobin's Q, most companies recorded a score above 1, indicating the market values their assets more than their book value. With the exception of a few companies with a score below 1, which is considered undervalued. In other words, company value is more influenced by profit and business prospects, rather than solely by green finance scores.

Descriptive analysis by company shows that in the 2021-2023 period, increases in Green Finance were not always directly proportional to company value. Blue Bird Tbk. For example, it consistently recorded the highest Green Finance Index (GFI) scores, namely 0.67 in 2021 and 1.00 in 2022–2023. However, its market value was low, with a PBV <1 and Tobin's Q <1. Therefore, despite its strong sustainability commitment, the market still considered it undervalued. A similar situation occurred with Express Transindo Utama Tbk., which successfully increased its GFI to a high category, but its PER was negative due to significant losses. Its high valuation based on PBV and Tobin's Q was more influenced by market speculation than actual financial performance. Conversely, a company with a low GFI, such as Adi Sarana Armada Tbk., actually recorded a high market valuation in 2021 with a PER of 81.04 and a PBV of 6.73, despite minimal green finance practices. The case of Transkon Jaya Tbk. is more balanced, with a high GFI in 2021 (0.83) and a Tobin's Q above 1.54, indicating that the market views its business prospects positively in line with its sustainability implementation. Classical Assumption Test

Normality Test

The normality test aims to assess whether the research data has a distribution that meets the normal assumption. If the data is normally distributed, this test is necessary to ensure the data's validity before proceeding to the next stage of analysis. In this study, the normality test was conducted using the Kolmogorov-Smirnov method at a significance level >0.05. The results of the normality test are presented as follows:

Table 5. Normality Test Results

Variable (Model)	N	Mean Residual	Std. Deviation	Test Statistic	Asymp. Sig. (2-tailed)	Information
Model 1	18	0,0000000	1,53202662	0,191	0,080	Normal (Sig. > 0,05)

Model 2	21	0,0000000	1,06908987	0,148	0,200	Normal (Sig. > 0,05)
Model 3	27	0,0000000	0,76102288	0,132	0,200	Normal (Sig. > 0,05)

Source: SPSS data processing results, 2025

Based on the Kolmogorov-Smirnov test, the three regression models showed significance values of 0.080, 0.200, and 0.200, respectively, all greater than 0.05. Therefore, it can be concluded that the residual data in all research models are normally distributed, thus meeting the assumption of normality.

Multicollinearity Test

The multicollinearity test aims to ensure there is no high correlation between the independent variables in the regression model. A model is declared free of multicollinearity if the Tolerance > 0.10 and the VIF < 10, so that the estimated regression coefficients remain valid and can be properly interpreted. The following are the results of the multicollinearity test:

Table 6. Multicollinearity Test Results

Independent Variable	Dependent	Tolerance	VIF	Description
Green Finance	PER	1.000	1.000	No multicollinearity
Green Finance	PBV	1.000	1.000	No multicollinearity
Green Finance	Tobin's Q	1.000	1.000	No multicollinearity

Source: SPSS data processing results, 2025

Based on the results of the multicollinearity test, all regression models using the Green Finance variable as a predictor of PER, PBV, and Tobin's Q showed a Tolerance value of 1.000 (> 0.10) and a VIF of 1.000 (< 10). This indicates that there are no symptoms of multicollinearity in the regression models used, and therefore, the Green Finance variable is suitable for inclusion in the regression analysis.

Autocorrelation Test

The autocorrelation test aims to detect the relationship between the residuals of the current and previous periods. The model is considered autocorrelation-free if the Durbin-Watson (DW) value is between μ and μ . The criteria are: if $DW < dl$, there is positive autocorrelation; if $dl < DW < du$, the results are uncertain; if $du < DW < 4-du$, there is no autocorrelation; and if $DW > 4-du$, there is negative autocorrelation.

Table 7. Autocorrelation Test Results

Model (Dependent Variable)	Durbin-Watson	dl	du	4 - du	Conclusion
PER	2,665	1,3365	1,5593	2,4407	$DW > 4 - du \rightarrow$ there are indications of mild negative autocorrelation
PBV	2,807	1,3365	1,5593	2,4407	$DW > 4 - du \rightarrow$ there are indications of mild negative autocorrelation
Tobin's Q	2,096	1,3365	1,5593	2,4407	$du < DW < 4 - du \rightarrow$ no autocorrelation

Source: SPSS data processing results, 2025

Based on the Durbin-Watson criteria, the model with the Tobin's Q as the dependent variable falls between μu and $4-\mu u$, thus it can be concluded that there is no autocorrelation. Meanwhile, the model with the PER and PBV as the dependent variables produces a DW value greater than $4-\mu u$, indicating mild negative autocorrelation. Nevertheless, the three regression models do not exhibit any serious autocorrelation and can therefore still be used in further analysis.

Heteroscedasticity Test

The heteroscedasticity test using the Glejser method aims to determine whether there is inequality in the residual variances in the regression model. The model is declared free of heteroscedasticity if the significance value is >0.05, thus meeting the homoscedasticity assumption and ensuring reliable regression results.

Table 8. Heteroscedasticity Test Results

Model (Dependent)	Independent Variable	Sig.	Conclusion
ABS_RES1 (PER)	<i>Green Finance</i>	0,655	No heteroscedasticity occurs (Sig. > 0.05)
ABS_RES2 (PBV)	<i>Green Finance</i>	0,596	No heteroscedasticity occurs (Sig. > 0.05)
ABS_RES3 (Tobin's Q)	<i>Green Finance</i>	0,568	No heteroscedasticity occurs (Sig. > 0.05)

Source: SPSS data processing results, 2025

Based on the heteroscedasticity test using the Glejser method, all regression models (PER, PBV, and Tobin's Q) showed significance values of 0.655, 0.596, and 0.568, respectively, which are greater than 0.05. This proves that there are no symptoms of heteroscedasticity in the three models, thus the regression models used meet the homoscedasticity assumption and are reliable for further analysis.

Simple Regression Analysis

The simple regression analysis in this study can be identified through the results presented in the following table:

Table 9. Simple Regression Analysis Test Results

Model (Dependent Variable)	Independent Variable	B (Unstandardized)	Std. Error	Beta (Standardized)
PER	<i>Green Finance</i>	-127,230	169,968	-0,148
PBV	<i>Green Finance</i>	-3,796	2,985	-0,246
<i>Tobin's Q</i>	<i>Green Finance</i>	-0,369	1,771	-0,042

Source: SPSS data processing results, 2025

From these results, three simple regression equations were obtained as follows:

1. $Y = 100,767 - 127,230X + e$

The constant of 100.767 indicates that if Green Finance (X) remains constant, the company's value, as measured by PER, is 100.767. The Green Finance regression coefficient of -127.230 indicates that every one-unit increase in Green Finance will decrease the PER value by 127.230.

2. $Y = 3,799 - 3,796X + e$

The constant of 3.799 indicates that when Green Finance (X) remains constant, the company's value, as measured by PBV, is 3.799. Meanwhile, the regression coefficient of -3.796 indicates that every one-unit increase in Green Finance will decrease PBV by 3.796.

3. $Y = 2,213 - 0,369X + e$

A constant of 2.213 means that if Green Finance (X) does not change, the company's value as measured by Tobin's Q is 2.213. The regression coefficient of -0.369 indicates that every one unit increase in Green Finance will decrease Tobin's Q by 0.369.

Hypothesis Testing

t-Test (Partial Test)

A partial t-test was conducted to determine the effect of the independent variable Green Finance on the dependent variables, consisting of PER, PBV, and Tobin's Q. With a sample size of 27 and one independent variable, the degrees of freedom (df) were 25, resulting in a t-table value at the 0.05 significance level of 2.060.

Table 10. t-Test Results

Model (Dependent Variable)	Independent Variable	t count	Sig.	Description
PER	Green Finance	-0,749	0,461	Negative and Insignificant Effect
PBV	Green Finance	-1,272	0,215	Negative and Insignificant Effect
Tobin's Q	Green Finance	-0,208	0,837	Negative and Insignificant Effect

Source: SPSS data processing results, 2025

Based on the partial t-test results, the effect of Green Finance on the value of transportation companies, as measured by PER, PBV, and Tobin's Q, showed insignificant results. In the model with PER as the dependent variable, the calculated t-value was -0.749 with a significance of 0.461, for PBV the calculated t-value was -1.272 with a significance of 0.215, and for Tobin's Q the calculated t-value was -0.208 with a significance of 0.837. With 25 degrees of freedom (df) and a t-value of 2.060, all calculated t-values were well below the t-value and had a significance level above 0.05. This means that H0 is accepted and Ha is rejected, indicating that Green Finance does not significantly influence the value of transportation companies on the IDX for the 2021–2023 period.

Coefficient of Determination (R²) Test

Table 11. Results of the Coefficient of Determination (R2) Test

Model (Dependent Variable)	R	R Square	Adjusted R Square	Std. Error of the Estimate
PER	0,148	0,022	-0,017	185,025897
PBV	0,246	0,061	0,023	3,249275
Tobin's Q	0,042	0,002	-0,038	1,928365

Source: SPSS data processing results, 2025

The coefficient of determination test results show that Green Finance only explains 2.2% of the variation in PER, 6.1% of the variation in PBV, and 0.2% of the variation in Tobin's Q. The remaining 97.8%, 93.9%, and 99.8% are influenced by other factors, respectively. This indicates that the influence of Green Finance on the value of transportation companies listed on the IDX during the 2021–2023 period is very low, and other variables are more dominant in determining company value.

Discussion

The relationship between green finance and company value in the transportation subsector indicates that the implementation of sustainability has not been able to consistently drive an increase in market valuation. Companies with high GFIs, such as Blue Bird Tbk. (1.00 in 2022–2023) and Express Transindo Utama Tbk. (0.67 in 2022–2023), are not accompanied by strong financial performance. Blue Bird has a perfect GFI, but a PBV of <1 and a Tobin's Q of <1, indicating the market undervalues its assets despite its optimal sustainability practices. Express Transindo, despite a high GFI, recorded a negative PER due to losses, while its very high PBV and Tobin's Q reflect market speculation rather than actual profitability. Conversely, companies with low GFIs, such as AirAsia Indonesia or Jaya Trishindo, still record a Tobin's Q of >1, indicating that investor expectations are driven more by business prospects than by green initiatives.

This disconnect is reinforced by the regression results, which show a negative and insignificant effect on PER, PBV, and Tobin's Q. The negative regression coefficient and very low determination value (0.2%–6.1%) confirm that variations in company value are more determined by other fundamental factors, such as profitability, leverage, or industry conditions. Thus, although Green Finance implementation has shown an increasing trend year over year,

its contribution to increasing company value remains limited and is perceived by the market more as an additional cost than as a creator of short-term financial value.

The results of this study align with those of Rizky and Susyani (2024), who found that Green Finance had no effect on company value in the basic industry and chemical sectors, although other variables such as company size and leverage were shown to play a more significant role. Conversely, research by Ifadhoh and Yuliana (2024) in the Consumer Non-Cyclicals sector and Yulianti et al. (2022) in the infrastructure sector showed that Green Finance had a positive effect on company value. These differences in results indicate that the influence of Green Finance is highly dependent on sector characteristics and the level of investor attention to sustainability practices. In the transportation sector, its implementation still needs to be improved in quality and transparency to provide real added value and become an important consideration in investment decisions.

CONCLUSION

This study found that the implementation of Green Finance did not significantly impact the value of transportation companies, as measured by PER, PBV, or Tobin's Q. Although some companies have improved sustainability practices such as green investment, energy efficiency, or ESG reporting, these steps have not been reflected in increased market valuations. In fact, companies with high Green Finance Index (GFI) scores, such as Blue Bird Tbk. and Express Transindo Utama Tbk., continue to face moderate valuations or unstable financial performance, while companies with low GFIs still manage to record Tobin's Q above one. This situation indicates that investors do not yet view Green Finance as a primary factor driving company value, but rather as an additional short-term cost burden.

Recommendations

1. For transportation companies, it is important to integrate Green Finance practices into the company's core strategy, rather than simply as a supplement or formality to sustainability reporting. Improving the quality of reporting and the concrete implementation of green initiatives can help build investor confidence in the long term.
2. For investors and stakeholders, increased literacy on ESG and Green Finance practices is needed so that non-financial information can be considered in investment decisions.
3. For future researchers, it is recommended to expand the sector coverage or extend the observation period, as well as add moderating variables such as profitability, company size, or investor perceptions, to provide a more comprehensive picture of the relationship between Green Finance and firm value.
4. For governments and regulators, there needs to be greater encouragement in the form of incentives, policies, and regulations that support companies in implementing Green Finance consistently and strategically. This will create a financial ecosystem that supports the transition to greener and more sustainable economic development.

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