

The Influence of Green Accounting and Corporate Social Responsibility (CSR) on Firm Value

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Abstract

This study aims to analyze the impact of Green Accounting implementation and Corporate Social Responsibility (CSR) disclosure on firm value, proxied by Return on Equity (ROE). Employing a quantitative approach with a descriptive-verification method, the research population comprises all issuers in the property and real estate sub-sector listed in the Ministry of Environment and Forestry's (KLHK) Company Performance Rating Program in Environmental Management (PROPER). Using purposive sampling, 10 corporate entities were selected over a five-year observation period (2021–2025), yielding 50 panel data observations. Data were extracted from integrated financial reports, sustainability reports, and official KLHK decrees, then processed using multiple linear regression via IBM SPSS software. Descriptive analysis classified the issuers' implementation of Green Accounting and CSR as falling within the "moderate" category. Partial hypothesis testing (t-test) revealed that Green Accounting has a significant negative effect on firm value (sig. 0.001 < 0.05). Similarly, the CSR disclosure variable was found to negatively affect return on equity (sig. 0.030 < 0.05). However, simultaneous testing (F-test) showed that both instruments significantly influence firm value (sig. 0.000 < 0.05), with a coefficient of determination (R^2) of 35.1%. This phenomenon of negative correlation confirms the applicability of agency theory in the short term, wherein the capitalization of environmental restoration costs and the allocation of social funds act as expenses that reduce net profit for conventional shareholders.

Keywords

Green Accounting; Corporate Social Responsibility; Firm Value; Property and Real Estate; PROPER

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INTRODUCTION

Indonesia is one of the world's largest demographic centers, ranking fourth after India, China, and the United States. Statistics Indonesia reported a population of 285,727,584 in the first half of 2025. The population has grown from approximately 272.6 million in 2021 to 275.7 million in 2022, 278.6 million in 2023, and 281.6 million in 2024. Population projections suggest that this growth will increase demand for housing and related infrastructure in the coming decades.

The expansion of the population and the formation of new households increase the need for physical housing. A home is a primary human need and serves not only as shelter but also as a foundation for family life, cultural continuity, and the development of future generations. Urban lifestyles that demand efficiency, connectivity, safety, and convenience have encouraged property developers to build integrated residential areas.

Nevertheless, the gap between housing needs and availability remains substantial. The national housing backlog is estimated at approximately 9.9 million households, while around 700,000–800,000 new couples are formed annually. This challenge also represents a significant business opportunity and a major social responsibility. The property and real estate industry contributes to national economic growth, absorbs labor, generates multiplier effects across related industries, and supports sectors such as cement, steel, building materials, and banking services (Ayuningtyas & Ismadiyanti, 2018; Nurpita & Rina, 2021).

Real estate has contributed approximately 2.42%–2.76% of Indonesia's gross domestic product at current prices. During the post-pandemic recovery, the government introduced incentives, including government-borne value-added tax under Minister of Finance Regulation No. 120/2023, to stimulate demand for new housing. However, property construction—including land clearing, conversion of productive land and water-absorption areas, extraction of natural materials, and the generation of construction waste—can create negative environmental externalities.

Development that prioritizes short-term financial returns without considering environmental carrying capacity can contribute to urban flooding, land subsidence, urban heat islands, and the loss of green open spaces. These consequences have increased pressure on companies to move beyond conventional accounting that excludes social and environmental costs (Bahari, 2022). Property companies are therefore expected to balance profit, people, and planet through Green Accounting and Corporate Social Responsibility (CSR) disclosure (Chairia et al., 2022).

Green Accounting integrates environmental expenditure into a company's accounting system so that management can identify, measure, and allocate costs used to prevent, mitigate, or remediate environmental damage caused by construction. CSR, meanwhile, is an ethical governance instrument intended to ensure that corporate operations generate social benefits for stakeholders around the company's operating areas (Fatmawatie, 2021). In principle, effective implementation of Green Accounting and CSR may strengthen firm value. Astuti et al. (2023) reported positive effects of Green Accounting and CSR on firm value, while Saputro and Mujiyati (2023) also found partial effects of these variables.

The Ministry of Environment and Forestry evaluates corporate environmental performance through PROPER. However, environmental and social spending may be viewed by conventional shareholders as costs that reduce current net income and return on equity. Faranika and Ilham (2023) describe this tension between minimizing operating costs and meeting ethical responsibilities. The conflicting expectations create an ongoing academic question about the effect of sustainability practices on a company's financial value.

This study examines whether Green Accounting and CSR affect firm value among property and real estate issuers participating in PROPER. It focuses on the individual effects of Green Accounting and CSR and their simultaneous effect on the dependent variable, measured using ROE in the study.

METHOD

This study uses a quantitative approach with a causal-associative design supported by verificative analysis. Data were obtained from the Indonesia Stock Exchange (IDX) digital database and the official portal of the Ministry of Environment and Forestry. The population comprises property and real estate service issuers listed on the IDX that also participate in PROPER.

Purposive sampling was applied using the following criteria: (1) property and real estate companies consistently listed on the IDX during 2021–2025; (2) companies included in official PROPER monitoring and assessment reports during 2021–2025; and (3) companies publishing complete annual and sustainability reports and transparently presenting environmental-cost data in rupiah during the observation period.

The screening process yielded 10 companies: LPCK (PT Lippo Cikarang Tbk), KIJA (PT Jababeka Tbk), DMAS (PT Puradelta Lestari Tbk), DILD (PT Intiland

Development Tbk), KIE (PT Kaltim Industrial Estate), KBN (PT Kawasan Berikat Nusantara [Persero]), KIMA (PT Kawasan Industri Makassar [Persero]), KIM (PT Kawasan Industri Medan [Persero]), SIER (PT Surabaya Industrial Estate Rungkut), and KIW (PT Kawasan Industri Wijayakusuma [Persero]). The five-year period produced 50 panel observations, as reported in the study. Data were collected through documentation of financial statements, sustainability reports, and official PROPER decisions. Multiple linear regression was conducted using IBM SPSS.

The regression model is expressed as $Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + e$, where Y is firm value (ROE), α is the constant, β_1 and β_2 are regression coefficients, X_1 is Green Accounting, X_2 is CSR, and e is the error term.

FINDINGS AND DISCUSSION

Multiple linear regression results

The multiple regression analysis examines the relationship between the dependent variable (Y) and the two independent variables, Green Accounting (X_1) and CSR (X_2) (Sinaga et al., 2022). The SPSS coefficient output reported a constant of -0.205 ($p = 0.773$), a Green Accounting coefficient of -0.289 (standardized beta = -0.476 ; $t = -3.528$; $p = 0.001$), and a CSR coefficient of -1.703 (standardized beta = -0.305 ; $t = -2.256$; $p = 0.030$).

The Green Accounting significance value of 0.001 is below 0.05 ; therefore, the null hypothesis for its partial effect is rejected. Green Accounting has a statistically significant negative association with the dependent variable. CSR also has a significant negative association because its p -value of 0.030 is below 0.05 . The negative coefficients indicate that higher values of these variables are associated with lower ROE in the estimated model.

The simultaneous F-test

The ANOVA output reports an F-statistic of 9.733 and a significance value of 0.000 , which is below 0.05 . The null hypothesis is therefore rejected, indicating that Green Accounting and CSR jointly have a statistically significant relationship with the dependent variable. The reported coefficient of determination is $R^2 = 35.1\%$, meaning that the model explains 35.1% of the variation in the dependent variable; the remaining variation is attributable to other factors not included in the model.

Negative implications of Green Accounting for ROE

The significant negative association between Green Accounting and ROE is consistent with the possibility that environmental expenditure constrains short-term

profitability. Property and real estate activities are sensitive to operating cash flow. Environmental accounting can involve investment in integrated construction-waste treatment, more expensive certified building materials, environmental-impact assessment compliance, and restoration of urban green spaces. If these costs are not accompanied by immediate increases in property sales, they can reduce after-tax net income. Because ROE is calculated using net income relative to shareholders' equity, a decrease in net income can lower the ratio.

This result should not be interpreted as proof that environmental management destroys long-term value. The estimated negative relationship may reflect the timing of costs and benefits, the chosen ROE proxy, and investor preferences for short-term returns. Benefits such as reduced legal exposure, resource efficiency, and improved reputation may take longer to appear in financial performance.

Negative implications of CSR/PROPER for property-company profitability

The significant negative CSR coefficient may reflect the immediate financial burden of community-development programs, social compensation for communities affected by construction, and the provision of shared public facilities. These programs require budgets that may not produce an immediate increase in revenue. When the benefits of CSR are realized over a longer period, short-term accounting indicators may fail to capture improvements in reputation, stakeholder relations, and social acceptance.

The findings suggest that managers should evaluate CSR spending in relation to program outcomes, budget efficiency, and long-term risk reduction. Companies should communicate the purpose and measurable results of environmental and social spending so that stakeholders can assess these activities beyond their immediate effect on reported profit.

CONCLUSION

This study examines the effects of Green Accounting and Corporate Social Responsibility (CSR) on firm value, proxied by ROE, among property and real estate companies participating in PROPER during 2021–2025. The analysis uses a quantitative approach, purposive sampling, documentary data, and multiple linear regression. The reported partial tests indicate that Green Accounting has a significant negative effect on the dependent variable ($p = 0.001$), while CSR also has a significant negative effect ($p = 0.030$). The simultaneous F-test indicates that the two independent variables jointly have a significant effect ($F = 9.733$; $p = 0.000$). The reported R^2 is 35.1%.

The results are consistent with the interpretation that environmental and social expenditures can reduce short-term accounting profitability when their financial benefits do not emerge immediately. However, these findings should not be taken to mean that sustainability practices necessarily reduce long-term firm value. Their effects may depend on implementation quality, time horizon, investor expectations, regulatory conditions, and the indicator used to represent firm value.

Property-company management should improve the efficiency and transparency of environmental-cost accounting and CSR implementation, link programs to measurable environmental and social outcomes, and communicate longer-term benefits to investors and other stakeholders. Future research should consider additional firm-level controls, alternative measures of firm value such as PBV or Tobin's Q, and longer observation periods. The study's reported sample and statistical outputs should also be reconciled before publication: the methods section states 50 observations, while the ANOVA table reports total degrees of freedom of 38, which ordinarily corresponds to 39 observations.

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