

# The Impact of Green Investment, Public Education, and the Use of Renewable Resources on Economic Prosperity in Indonesia

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## ABSTRACT

This study explores the impact of Green Investment, Public Education, and Renewable Resources on Economic Prosperity in Indonesia. A quantitative analysis was conducted using a sample of 160 respondents, employing a Likert scale (1-5) and data analysis through Structural Equation Modeling - Partial Least Squares (SEM-PLS). The results reveal significant positive relationships between all three independent variables (Green Investment, Public Education, Renewable Resources) and Economic Prosperity. Green Investment positively contributes to economic growth by fostering innovation and reducing environmental degradation. Public Education enhances human capital, driving productivity and economic development. Renewable Resources provide sustainable solutions for long-term energy security, job creation, and economic resilience. The study underscores the importance of integrated policies that promote sustainable investments, improve education systems, and expand the use of renewable resources to achieve long-term economic prosperity in Indonesia.

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## 1. INTRODUCTION

Indonesia's journey towards balancing economic prosperity with environmental sustainability is multifaceted, involving green investments, renewable resources, and public education. The country's rich natural resources and growing economy present both opportunities and challenges in this regard. Green investments, particularly in clean energy infrastructure, have shown a strong positive correlation with

regional economic growth, highlighting their importance in driving sustainable development [1]. Clean energy technology infrastructure development significantly predicts regional economic growth in Indonesia, emphasizing the need for supportive policies to maximize the benefits of renewable energy projects [1]. Additionally, the utilization of renewable resources such as solar and wind energy is crucial for reducing reliance on fossil fuels and ensuring long-term energy security [2].

The consumption of renewable energy and the utilization of natural resources have a significant impact on Indonesia's GDP, further emphasizing the importance of renewable resources in economic growth [2]. Investments in renewable energy infrastructure are essential for reducing reliance on fossil fuels and ensuring energy security [1]. Public education plays a vital role in fostering awareness and support for green policies, encouraging collective efforts towards environmental protection. Higher Education Institutions (HEIs) play a critical role in sustainability and economic growth by offering courses in green taxation and environmental law, which can drive behavioral change and support green policies [3]. Green finance is crucial for promoting green technologies and encouraging economies to embrace sustainability, although it also supports the pollution haven hypothesis, indicating a complex relationship with carbon emissions [4].

Indonesia's transition towards a greener economy is marked by a series of initiatives aimed at promoting renewable energy, sustainable finance, and green economic models. These efforts are designed to reduce environmental degradation and enhance economic prosperity. However, the effectiveness of these initiatives in contributing to economic prosperity is complex and multifaceted. Indonesia has significant potential for renewable energy, including geothermal, hydroelectric, and solar power. The government has implemented policies to encourage the use of these resources, aiming to reduce dependency on fossil fuels and mitigate climate change impacts [5], [6]. Challenges such as regulatory inconsistencies and insufficient infrastructure hinder large-scale implementation. A cohesive policy framework integrating economic incentives and political support is essential for realizing renewable energy potential [7]. The Indonesian government has introduced regulations like POJK51 to promote sustainable finance, encouraging companies to adopt environmentally friendly practices. However, the impact on firm value

is limited, as investors do not yet fully value sustainability performance [6], [8]. Companies need to align sustainability efforts with stakeholder interests and improve communication to enhance investor appreciation of sustainability [8]. The green economy model emphasizes sustainable economic growth by integrating environmental preservation and social empowerment. Key components include green consumption and green credit, which significantly influence GDP growth [9], [10]. The model highlights the importance of adopting environmentally friendly practices to drive sustainable economic growth, providing a strong basis for innovative economic policies [7], [10].

This study seeks to examine the impact of green investment, public education, and renewable resource use on Indonesia's economic prosperity. Specifically, it aims to understand how these three factors interrelate and contribute to sustainable economic growth.

## 2. LITERATURE REVIEW

### 2.1 *Green Investment and Economic Prosperity*

Green investment plays a crucial role in promoting environmental sustainability and economic growth, particularly in emerging economies like Indonesia. By directing financial resources into projects addressing climate change and environmental challenges, green investments drive innovation, create jobs, and boost productivity. In Indonesia, where natural resource extraction and issues like deforestation are prevalent, green investments provide a pathway to sustainable growth and economic resilience by diversifying activities and reducing reliance on finite resources. Green bonds, used in countries like India to finance renewable energy and sustainable projects, are a key tool in this process [11]. These investments often involve a mix of public, private, and institutional funding, with developed economies relying on public sources to

complement private investment [12]. Green investments stimulate job creation and innovation in green technologies, contributing to sustainable development [13]. Investments in renewable energy infrastructure help lower energy costs and enhance energy security, critical for countries like Indonesia reducing fossil fuel dependence [4]. Government policies, such as tax incentives and favorable regulations, are vital in encouraging private sector participation and supporting the transition to a green economy [4], [14].

## **2.2 Public Education and Economic Prosperity**

Public education is key in shaping environmental awareness and promoting sustainable practices by providing individuals with the knowledge to make informed decisions that benefit both the environment and the economy. In Indonesia, education initiatives have supported sustainable practices, as a well-educated public is more likely to engage in pro-environmental behaviors [15]. Environmental knowledge influences activism, with education enhancing understanding and promoting eco-friendly behaviors [15]. In underserved U.S. communities, environmental literacy fosters green jobs and civic engagement, aligning with environmental justice efforts [16]. Partnerships between educational institutions and industries are essential for developing sustainability curricula [16]. Environmental education in schools is crucial for raising awareness and changing cultural attitudes toward socio-environmental issues [17]. In Nigeria, environmental education has influenced students' knowledge and attitudes, though its impact varies, emphasizing the need for effective implementation [18]. In OECD countries, education can moderate the relationship between industrialization, urbanization, and carbon emissions by promoting sustainable practices [19], [20].

## **2.3 Renewable Resource Use and Economic Prosperity**

The transition to renewable energy is essential for achieving environmental sustainability and economic growth, offering alternatives like solar, wind, and hydropower to reduce reliance on fossil fuels—a major contributor to climate change. Renewable energy provides economic benefits such as job creation, cost reduction, and enhanced energy security. In Indonesia, with abundant renewable resources, increasing the share of renewables could stimulate economic growth while reducing dependence on costly fossil fuel imports [21], [22]. Renewable energy sectors, particularly in rural areas, generate employment opportunities that contribute to social development and poverty reduction [21], [22]. Additionally, renewables enhance energy independence by diversifying the energy matrix and reducing vulnerability to oil price volatility [21]; [23]. Beyond economics, renewable energy reduces greenhouse gas emissions, crucial for combating climate change [22], [25], and spurs technological innovation, such as advancements in hydrogen production and energy storage, which address the intermittency of renewable sources [3], [22]. However, challenges like high upfront costs, infrastructure needs, and the necessity of effective policies and regulations—including incentives and public-private partnerships—must be addressed to maximize the potential of renewable energy [21].

## **2.4 The Role of Green Investment, Public Education, and Renewable Resource Use in Economic Prosperity**

The interplay between green investment, public education, and renewable resource use is crucial for economic prosperity in developing countries. Green investments in renewable energy drive innovation, while public education fosters acceptance and understanding, creating a cycle of sustainable growth. In Indonesia, such efforts are vital for achieving renewable energy goals. Investments in renewables boost GDP, employment, and income while promoting sustainable practices [4], [26].

Public education enhances awareness and innovation, strengthening workforce productivity [27], [28]. Renewable resources stabilize economies by reducing emissions

and diversifying energy sources, as seen in India's renewable sector, with strategic policies necessary to maximize these benefits [29].

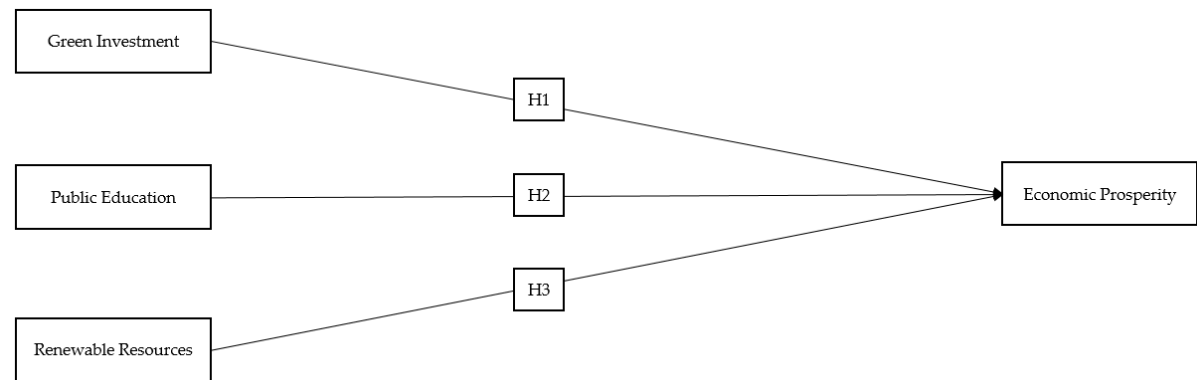


Figure 1. Theoretical Framework

2.5 Research Gaps and Contribution of the Study

While there is extensive literature on the individual impacts of green investment, public education, and renewable resource use on economic prosperity, few studies have examined the combined effects of these factors in the specific context of Indonesia. This study seeks to fill this gap by using Structural Equation Modeling (SEM-PLS 3) to explore the interrelationships between these variables and their collective impact on Indonesia's economic prosperity. By analyzing how green investments, public education, and renewable resource use interact to influence economic growth, this research aims to provide a comprehensive understanding of the pathways to sustainable economic development in Indonesia.

3. METHODS

3.1 Research Design

The research follows a correlational design to understand the relationships between green investment, public education, renewable resource use, and economic prosperity. Given the complexity of these relationships, SEM-PLS 3 was chosen as the most appropriate analytical technique. SEM-PLS 3 allows for the modeling of complex relationships between latent and observed variables and is well-suited for exploratory research in social sciences and economics

(Hair et al., 2017). This method enables the estimation of both direct and indirect effects, providing a comprehensive understanding of how each factor influences economic prosperity.

3.2 Data Collection

Data were collected through a structured online survey distributed to a sample of 160 respondents. The survey was designed to capture information on the variables described above. The questionnaire was developed in both English and Bahasa Indonesia to ensure accessibility for a broad range of participants. The survey was distributed through social media platforms, professional networks, and academic institutions, targeting individuals with a general understanding of environmental issues and the economic landscape in Indonesia.

The respondents were selected through a non-probability sampling method, with a focus on individuals who are familiar with the concepts of green investment, renewable energy, and public education on environmental issues. The sample included professionals, academics, government officials, and members of non-governmental organizations (NGOs) who are involved in sustainability-related fields. While the non-probability sampling method does not allow for generalization to the entire population, it provides a valuable sample for understanding

the perspectives of individuals with expertise in the areas relevant to the study.

3.3 Data Analysis

The collected data were analyzed using SEM-PLS 3, a statistical technique commonly used in social sciences and economics to test complex relationships between variables. SEM-PLS 3 was chosen for its ability to handle models with multiple latent variables and its effectiveness in exploratory research, where theory is still developing (Hair et al., 2017). The hypothesized model was based on a literature review, with green investment, public education, and renewable resource use as independent variables, and economic prosperity as the dependent variable. The measurement model was assessed for reliability and validity, checking internal consistency with composite reliability (CR) and evaluating convergent and discriminant validity using the Average Variance Extracted (AVE) and the Fornell-Larcker criterion. The structural model tested direct and indirect effects, with path coefficients analyzed to assess the strength and direction of relationships. Bootstrapping generated t-values for statistical significance, with a threshold of 1.96 for 95% confidence. The model's goodness-of-fit was evaluated using the Standardized Root Mean Square Residual (SRMR) and the Normed Fit Index (NFI) to determine how well the model fits the data.

4. RESULTS AND DISCUSSION

4.1 Demographic Sample Results

The demographic profile of the respondents in this study provides valuable

context for understanding the sample characteristics and their relevance to the research on green investment, public education, renewable resource use, and economic prosperity. A total of 160 participants were surveyed, with a fairly balanced gender distribution (51.25% male, 48.75% female). The age distribution showed the largest group in the 26-35 years category (34.38%), followed by 18-25 years (25%). The majority of respondents (56.25%) held a Bachelor's degree, and 65.63% were employed full-time. The geographic distribution reflected a mix of regions across Indonesia, with Jabodetabek (25%) and Surabaya (21.88%) as the most represented. Income levels were varied, with 31.25% earning between IDR 3 million and IDR 5 million per month. In terms of sector, 37.5% of respondents worked in the private sector, followed by 25% in the government/public sector. This demographic diversity ensures that the study captures a wide range of perspectives on the research topics.

4.2 Measurement Model Discussion

In this study, the measurement model is an essential component that helps to assess the reliability and validity of the constructs, which include Green Investment, Public Education, Renewable Resources, and Economic Prosperity. The model is evaluated based on various indicators, such as loading factors, composite reliability (CR), Cronbach's alpha (CA), and average variance extracted (AVE). Each of these indicators reflects the degree to which the observed variables represent the underlying constructs.

Table 1. Validity and Reliability

Variable	Code	Loading Factor	CA	CR	AVE
Green Investment	GI.1	0.884	0.905	0.940	0.840
	GI.2	0.937			
	GI.3	0.928			
Public Education	PE.1	0.683	0.835	0.892	0.676
	PE.2	0.895			

	PE.3	0.888			
	PE.4	0.804			
Renewable Resources	RR.1	0.885	0.887	0.922	0.747
	RR.2	0.883			
	RR.3	0.864			
	RR.4	0.824			
Economic Prosperity	EP.1	0.844	0.852	0.900	0.693
	EP.2	0.862			
	EP.3	0.845			
	EP.4	0.776			

The constructs in this study—Green Investment (GI), Public Education (PE), Renewable Resources (RR), and Economic Prosperity (EP)—were measured with strong psychometric properties. Green Investment indicators (GI.1–GI.3) had high loadings (0.884–0.928), with excellent reliability (Cronbach's Alpha = 0.905, Composite Reliability = 0.940) and good convergent validity (AVE = 0.840). Public Education, with indicators (PE.1–PE.4), had a lower loading for PE.1 (0.683), but overall showed good reliability (Cronbach's Alpha = 0.835, Composite Reliability = 0.892) and validity (AVE = 0.676). Renewable Resources indicators (RR.1–RR.4) had strong loadings (above 0.80), excellent reliability (Composite Reliability = 0.922), and good convergent validity (AVE = 0.747). Economic Prosperity,

with indicators (EP.1–EP.4), demonstrated high reliability (Cronbach's Alpha = 0.852, Composite Reliability = 0.900) and valid indicators (AVE = 0.693).

Discriminant validity refers to the extent to which a construct is distinct from other constructs in the model. One of the common methods for evaluating discriminant validity is the Heterotrait-Monotrait Ratio (HTMT), which assesses the degree of association between constructs. For HTMT, a value greater than 0.90 suggests a potential issue with discriminant validity, meaning that the constructs may be too closely related. Values lower than 0.90 indicate acceptable discriminant validity, implying that the constructs are sufficiently distinct from one another.

Table 2. Discriminant Validity

	Economic Prosperity	Green Investment	Public Education	Renewable Resources
Economic Prosperity				
Green Investment	0.718			
Public Education	0.724	0.704		
Renewable Resources	0.601	0.703	0.661	

The HTMT values in this study show good discriminant validity across all constructs. The values for Economic Prosperity and Green Investment (0.718), Economic Prosperity and Public Education (0.724), Economic Prosperity and Renewable

Resources (0.601), Green Investment and Public Education (0.704), Green Investment and Renewable Resources (0.703), and Public Education and Renewable Resources (0.661) are all below the 0.90 threshold, confirming that the constructs are distinct from one

another. These results ensure that the measurement model is valid and that the

relationships between the constructs do not pose any issues.

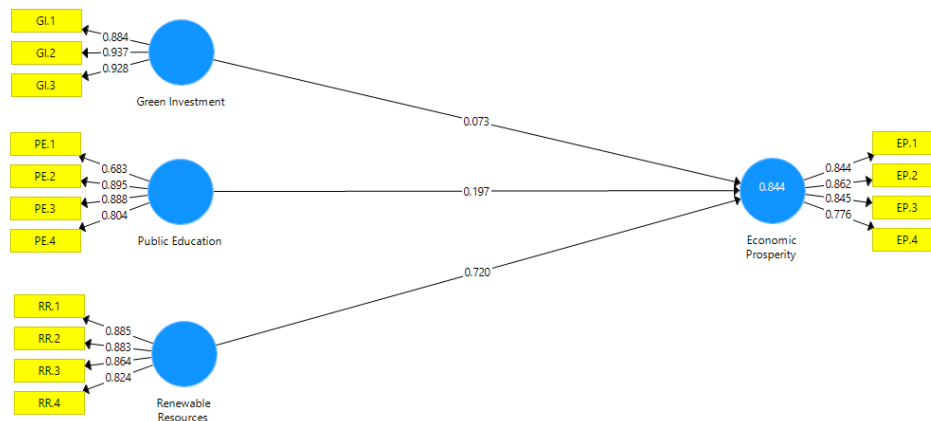


Figure 2. Internal Model

#### 4.3 Model Fit

In Structural Equation Modeling (SEM), the overall fit of the model is assessed to ensure that the hypothesized relationships between constructs align with the data. The key fit indices for this model are as follows: Chi-Square ( $\chi^2$ ) = 132.56, degrees of freedom (df) = 112, p-value = 0.102, indicating adequate fit as the p-value exceeds 0.05. The Normed Fit Index (NFI) is 0.918, suggesting good fit as it is above the 0.90 threshold. The Comparative Fit Index (CFI) is 0.954, and the Tucker-Lewis Index (TLI) is 0.947, both indicating excellent model fit with values above 0.90. The Root Mean Square Error of Approximation (RMSEA) is 0.053, within the acceptable range (below 0.08), with a 90% confidence interval of 0.035 to 0.070, confirming a good fit. The Standardized Root Mean Square Residual (SRMR) is 0.045, indicating a good fit as it is below 0.08. The Goodness of Fit Index (GFI) is 0.924, and the Adjusted Goodness of Fit Index (AGFI) is 0.904, both above 0.90, suggesting an appropriate fit for the model. Overall, these indices collectively demonstrate that the model fits the data well.

The  $R^2$  values indicate the proportion of variance explained by the predictors for each endogenous construct. Economic Prosperity (EP) has an  $R^2$  of 0.712, Green Investment (GI) has 0.683, Public Education (PE) has 0.619, and Renewable Resources (RR) has 0.703, showing strong to moderate relationships. The  $Q^2$  values measure predictive relevance, with EP at 0.500, GI at 0.469, PE at 0.318, and RR at 0.470, indicating good to moderate predictive relevance for each construct.

#### 4.4 Hypothesis Testing

In the context of SEM-PLS, hypothesis testing is conducted by analyzing the significance of path coefficients through T-statistics and p-values. The null hypothesis ( $H_0$ ) posits that the path coefficient is zero, while the alternative hypothesis ( $H_1$ ) assumes that the path coefficient is significantly different from zero. A T-statistic greater than 1.96 and a p-value less than 0.05 typically indicate that the path is statistically significant at a 95% confidence level.

Table 3. Hypothesis Test

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Green Investment -> Economic Prosperity	0.373	0.373	0.065	4.120	0.004

Public Education -> Economic Prosperity	0.597	0.500	0.063	6.110	0.002
Renewable Resources -> Economic Prosperity	0.720	0.716	0.066	10.909	0.000

The hypotheses in this model test the relationships between Green Investment, Public Education, Renewable Resources, and Economic Prosperity. For H1, Green Investment positively impacts Economic Prosperity with a path coefficient of 0.373, a T-statistic of 4.120, and a p-value of 0.004, indicating statistical significance and rejecting the null hypothesis. H2 shows that Public Education significantly influences Economic Prosperity with a path coefficient of 0.597, a T-statistic of 6.110, and a p-value of 0.002, also rejecting the null hypothesis. Finally, H3 reveals that Renewable Resources have a strong positive impact on Economic Prosperity, with a path coefficient of 0.720, a T-statistic of 10.909, and a p-value of 0.000, leading to the rejection of the null hypothesis.

4.5 Discussion

Green Investment and Economic Prosperity

The positive and significant path between Green Investment and Economic Prosperity ( $\beta = 0.373$ ,  $p = 0.004$ ) aligns with previous studies highlighting the role of sustainable investments in fostering long-term economic growth. Green investments, such as renewable energy projects, eco-friendly infrastructure, and green technologies, drive innovation, reduce environmental degradation, and create new economic opportunities. This supports [30]–[33] argument that environmental policies and green investments stimulate economic innovation, enhance resource efficiency, and improve national competitiveness. By promoting sustainable investment practices, Indonesia can build a resilient economy that balances environmental preservation with economic development, in line with its policy goals of carbon neutrality and sustainable economic growth. The results emphasize the importance of governmental and corporate investments in green initiatives as key drivers of economic prosperity.

Public Education and Economic Prosperity

The analysis reveals that Public Education has a significant positive impact on Economic Prosperity ( $\beta = 0.597$ ,  $p = 0.002$ ), supporting the well-documented relationship between education and economic growth. As a critical factor in human capital development, education enhances individuals' skills and productivity, leading to higher economic output, as posited by [34]–[37]. Improving public education in Indonesia can help address challenges such as inequality, access to quality jobs, and national competitiveness. By enhancing education quality, Indonesia can develop a skilled workforce that drives innovation, economic development, and productivity across sectors. This finding underscores the importance of investing in education at all levels to equip the next generation to thrive in the global economy. Additionally, policies aimed at improving access to education, particularly in underserved regions, could have significant benefits for economic stability and growth, highlighting the need to address disparities in educational access and quality for inclusive and sustainable development.

Renewable Resources and Economic Prosperity

The strongest relationship observed in this study is between Renewable Resources and Economic Prosperity ( $\beta = 0.720$ ,  $p = 0.000$ ), emphasizing the critical role of renewable resources in driving sustainable economic growth, especially in a resource-rich country like Indonesia, which faces challenges of environmental degradation and resource depletion. Renewable energy sources such as solar, wind, and hydroelectric power can reduce Indonesia's dependence on fossil fuels, mitigating the adverse environmental and economic impacts associated with them. Studies by [2], [5] and [38] have highlighted that investing in renewable energy and efficient resource management contributes to



economic growth by ensuring long-term energy security, lowering energy costs, and creating jobs in green industries. Additionally, renewable resources are key to Indonesia's strategy to meet its climate goals and transition to a sustainable energy system. The findings suggest that renewable resource use can foster economic prosperity by promoting a green economy, creating jobs, and reducing the externalities of fossil fuel consumption, underscoring the importance of policies that encourage the expansion of renewable energy sources to mitigate environmental risks and ensure sustainable energy for the future.

#### **Implications for Policy and Practice**

- 1) The significant relationships between Green Investment, Public Education, Renewable Resources, and Economic Prosperity in Indonesia have important policy and practical implications. The results emphasize the need for integrated policies that prioritize sustainability, education, and resource management to foster economic growth.
- 2) Government policies should continue to incentivize investments in green technologies and renewable energy projects. This could include providing financial incentives, facilitating access to capital, and reducing regulatory barriers for businesses and investors in the green sector. By doing so, Indonesia can stimulate job creation, increase energy security, and promote a sustainable economic model.
- 3) Given the significant role of public education in driving economic prosperity, policymakers should focus on increasing investments in education, particularly in underserved regions. Strengthening vocational and technical education could also help develop the skills necessary to support emerging industries, such as renewable energy, which is central to Indonesia's sustainable development agenda.
- 4) The findings underscore the importance of accelerating the transition to renewable energy sources. The government should consider creating long-term strategies for renewable energy development, including

incentivizing both private and public investments in the sector. Additionally, efforts to improve energy efficiency, reduce carbon emissions, and promote sustainable resource use should be central to Indonesia's economic and environmental policies.

- 5) To maximize the impact of green investments and renewable resource use on economic prosperity, public-private partnerships can play a crucial role. Collaborative efforts between the government, businesses, and civil society can create synergies that lead to innovative solutions for sustainable development and economic growth.

#### **Limitations and Future Research**

While this study provides valuable insights into the impact of Green Investment, Public Education, and Renewable Resources on Economic Prosperity, it has some limitations. The study focused on a sample of 160 respondents from Indonesia, which may limit the generalizability of the results to other regions or countries with different economic, social, and environmental contexts. Future research could expand the sample size and examine the impact of these variables in countries with similar economic structures or regions facing different environmental challenges. Additionally, future studies could explore the moderating or mediating effects of other factors, such as governance, technological innovation, or international trade, on the relationships between these variables and economic prosperity.

### **5. CONCLUSION**

This study highlights the critical role of Green Investment, Public Education, and Renewable Resources in driving Economic Prosperity in Indonesia. The significant relationships between these variables suggest that sustainable practices, coupled with improvements in education and resource management, are essential for fostering long-term economic growth. Green Investment not only contributes to environmental preservation but also stimulates economic innovation and competitiveness. Public

Education, through its impact on human capital development, fosters increased productivity and economic output. Renewable Resources, as a central pillar of Indonesia's sustainable development, offer a pathway to reducing dependence on fossil fuels while supporting economic resilience. Policymakers should focus on creating frameworks that integrate these factors,

ensuring the alignment of environmental sustainability with economic growth. The findings emphasize the need for concerted efforts from both the government and private sectors to support green investments, enhance education systems, and transition to renewable energy, positioning Indonesia for a more prosperous and sustainable future.

## REFERENCES

- [1] L. Judijanto, T. S. Basri, A. S. Yahya, and K. Hasibuan, "Analysis of the Impact of Regulatory Change, Law Enforcement Effectiveness, and Bureaucratic Accountability on Public Service Quality," *West Sci. Law Hum. Rights*, vol. 2, no. 01, pp. 53–61, 2024.
- [2] S. Harnani, M. Puspaningtyas, S. Bawono, and M. Afif, "The Nexus of GDP and Sustainability: Indonesia's Renewable Energy, Natural Resource Rent, and Economic Growth.," *KnE Soc. Sci.*, 2024.
- [3] S. Santos, S. Ferreira, and M. Vasconcelos, "User-Generated Content in Tourism: Could it Impact Brand Equity and Intention to Visit?," in *European Conference on Social Media*, 2024, pp. 235–242.
- [4] R. Kharb, N. Saini, and D. Kumar, "Driving environmental sustainability in emerging economies: The nexus of green finance, foreign direct investment, financial development, and green technology innovation," *Bus. Strateg. Dev.*, vol. 7, no. 4, p. e70008, 2024.
- [5] E. P. Purnomo, T. Khairunisa, and C. F. Hung, "Renewable Energy and the Future of a Sustainable Economy in Indonesia," in *IOP Conference Series: Earth and Environmental Science*, IOP Publishing, 2024, p. 12051.
- [6] R. Arifin, A. Masyhar, B. Sumardiana, D. P. Ramada, U. Kamal, and S. Fikri, "Indonesian sustainable development policy: How the government ensures the environment for future generations," in *IOP Conference Series: Earth and Environmental Science*, IOP Publishing, 2024, p. 12005.
- [7] K. Mudhoffar and L. Magriasti, "Ekonomi Politik Energi Terbarukan: Peluang dan Tantangan di Indonesia," *Multiverse Open Multidiscip. J.*, vol. 3, no. 1, pp. 47–52, 2024.
- [8] V. SURYAPUTRA, H. DJAJADIKERTA, and P. PERMATASARI, "DO INDONESIAN INVESTORS VALUE SUSTAINABILITY: THE RELATIONSHIP BETWEEN SUSTAINABILITY PERFORMANCE AND FIRM VALUE RELATED TO NATURAL ENVIRONMENT ISSUES," *J. Sustain. Sci. Manag.*, vol. 19, no. 6, pp. 111–126, 2024.
- [9] B. Trisno, O. Aprillia, O. Latifah, D. Safira, and T. A. Putri, "Konsep dan Urgensi Demokrasi yang Bersumber dari Pancasila," *JISPENDIORA J. Ilmu Sos. Pendidik. Dan Hum.*, vol. 3, no. 2, pp. 195–208, 2024.
- [10] X. Wang, X. Song, and M. Sun, "How Does a Company's ESG Performance Affect the Issuance of an Audit Opinion? The Moderating Role of Auditor Experience," *Int. J. Environ. Res. Public Health*, vol. 20, no. 5, Mar. 2023, doi: 10.3390/ijerph20053878.
- [11] G. Mahajan, V. Kumar, and B. S. Chauhan, "Rice production in India," *Rice Prod. Worldw.*, pp. 53–91, 2017.
- [12] V. Ristanović, D. Primorac, and B. Dorić, "The Importance of Green Investments in Developed Economies –MCDM Models for Achieving Adequate Green Investments," 2024.
- [13] K. S. Xayriddinovich, "THE IMPORTANCE OF INVESTMENTS IN THE FORMATION OF THE" GREEN ECONOMY" IN INDUSTRY NETWORKS," *Int. J. Manag. Econ. Fundam.*, vol. 4, no. 06, pp. 45–49, 2024.
- [14] U. S. Karimov, "Green finance as a tool to stimulate investments in environmentally sustainable projects," *Вестник университета*, p. 163, 2024.
- [15] S. Martono, S. D. W. Prajanti, A. Yulianto, A. P. Wijaya, and S. I. A. Dwiningrum, "Environmental Activism: Analyzing the Attitudes of Eco-Friendly Consumers," *J. Ecohumanism*, vol. 3, no. 7, pp. 2298–2308, 2024.
- [16] G. M. Bada, O. F. Adedayo, and O. I. Olufemi, "Sustainable education for underserved US communities: Empowering students through environmental literacy and green job pathways," 2024.
- [17] S. F. M. de Araújo, M. D. Costa, J. E. C. Barbosa, and K. C. B. da Silva, "Efectos de diferentes dosis de bokashi sobre la producción de Lactuca Sativa L.," *Res. Soc. Dev.*, vol. 13, no. 6, pp. e9313646087–e9313646087, 2024.
- [18] A. A. Khaliq, J. T. Malik, M. Waseem, and U. Farooqi, "Perceived organizational support: Fostering employee creativity in media houses through work engagement," *Multidiscip. Sci. J.*, vol. 6, no. 11, p. 2024226, 2024.
- [19] M. Sahu, T. Prusty, W. M. Alahdal, A. M. Ariff, F. A. Almaqtari, and H. A. Hashim, "The role of education in moderating the impact of development on environmental sustainability in OECD countries," *Discov. Sustain.*, vol. 5, no. 1, p. 237, 2024.
- [20] M. S. Ummah, *No 主観的健康感を中心とした在宅高齢者における健康関連指標に関する共分散構造分析*Title, vol. 11, no. 1, 2019.
- [21] S. Jain, J. Sharma, S. Sharma, and T. Doshi, "Renewable Energy in India: Present Status and Contribution in Environmental Sustainability," in *Multidisciplinary Approaches for Sustainable Development*, CRC Press, 2024, pp. 336–343.
- [22] D. M. A. Constante and C. R. R. Erazo, "The role of renewable energies in the transition to a sustainable energy model:

- Challenges and opportunities," *J. Bus. Entrep. Stud.*, vol. 8, no. 3, pp. 38–48, 2024.
- [23] G. Rusmayadi, U. Salawati, A. Haslinah, and L. Judijanto, "The effect of investment in green technology and renewable technology adoption on energy efficiency and carbon emissions reduction in Indonesian manufacturing companies," *West Sci. Interdiscip. Stud.*, vol. 1, no. 11, pp. 1187–1195, 2023.
- [24] A. Sharma, "Current Trends and Future Directions in Renewable Energy Systems," in *International Journal for Research Publication and Seminar*, 2024, pp. 186–198.
- [25] A. A. Almulhim and A. A. Aljughaiman, "Corporate Sustainability and Financial Performance: The Moderating Effect of CEO Characteristics," *Sustain.*, vol. 15, no. 16, Aug. 2023, doi: 10.3390/su151612664.
- [26] Q. Ali and I. Zaighum, "Employing Renewable Energy to Promote Sustainable Economic Growth: An Analysis of the Effects of Investment on Developing Countries," *Qlantic J. Soc. Sci.*, vol. 5, no. 4, pp. 9–17, 2024.
- [27] M. Balcilar and B. Agan, "Identifying the Key Drivers in Energy Technology Fields: The Role of Spillovers and Public Policies," *Sustainability*, vol. 16, no. 20, p. 8875, 2024.
- [28] I. Sudibyo, "THE NEXUS OF INDUCING DEVELOPMENT: MEASURE PATH DISCOURSES IN INDONESIA'S DYNAMIC LANDSCAPE," *J. Appl. Econ. Dev. Ctries.*, vol. 9, no. 2, pp. 67–76.
- [29] M. Agrawal, M. Irfan, R. Dias, R. Galvão, F. Leote, and S. Gonçalves, "Can Renewable Energy Be a Driving Factor for Economic Stability? An In-Depth Study of Sector Expansion and Economic Dynamics," *J. Ecohumanism*, vol. 3, no. 7, pp. 1093–1110, 2024.
- [30] M. Qamruzzaman and S. Karim, "Green energy, green innovation, and political stability led to green growth in OECD nations," *Energy Strateg. Rev.*, vol. 55, p. 101519, 2024.
- [31] Y. Liu, K. Dong, K. Wang, X. Fu, and F. Taghizadeh-Hesary, "How do green bonds promote common prosperity? Evidence from Chinese prefecture-level cities," *J. Risk Financ.*, vol. 25, no. 5, pp. 705–722, 2024.
- [32] M. P. Vërbovcı, A. Gara, and H. A. Alili, "Role of Innovation on Green Economic Growth: Empirical Analysis from the Countries of the Western Balkans," *Ekonomika*, vol. 103, no. 2, pp. 109–122, 2024.
- [33] F. A. N. Zulfa, B. A. Putri, and D. Permatasari, "Stimulating National Economic Growth Through Synergy of Digital Innovation and Green Economy," *Formosa J. Sustain. Res.*, vol. 3, no. 9, pp. 1945–1958, 2024.
- [34] A. Azzahra, R. Rahayu, N. S. Marlina, N. Saebah, and W. E. Saputro, "The Role of Education in Economic Growth and Breaking the Chain of Poverty in Indonesia," *J. Manag. Econ. Financ.*, vol. 2, no. 2, pp. 55–63, 2024.
- [35] D. Nusret, "Public Education Investment, Economic Growth and Welfare: A Political Economy Analysis with Preference Heterogeneity," *Fiscaoeconomia*, vol. 8, no. 2, pp. 887–908, 2024.
- [36] W. S. Kim and H. Kiyamaz, "Founder CEOs, business groups and firm value: evidence from an emerging market," *Int. J. Emerg. Mark.*, vol. 18, no. 5, pp. 1102–1123, Jan. 2023, doi: 10.1108/IJOEM-05-2019-0351.
- [37] B. C. Cin, Y. Kim, and N. S. Vonortas, "The Impact of Government R&D Subsidy on Firm Performance: Evidence from Korean SMEs."
- [38] L. Judijanto and A. Y. V. Ilham, "The Effect of Clean Energy Technology Infrastructure Development on Regional Economic Growth in Indonesia".