

Analysis of the Influence of Investment Value and Financial Technology on Economic Growth Through the Green Economy Index in Realizing Environmentally Friendly Infrastructure in Indonesia

Siska Ahmaria^{1*}, Aida Fitriah², Indah Yuliana³
UIN Maulana Malik Ibrahim Malang

Corresponding Author: Siska Ahmaria 210501110266@student.uin-malang.ac.id

ARTICLE INFO

Keywords: Investment Value, Financial Technology, Green Economy, Economic Growth, Environmentally Friendly Infrastructure

Received : 3 June

Revised : 19 July

Accepted: 22 September

©2024 Ahmaria, Fitriah, Yuliana: This is an open-access article distributed under the terms of the [Creative Commons Attribution 4.0 International](https://creativecommons.org/licenses/by/4.0/).



ABSTRACT

This study analyzes the influence of investment value and financial technology on economic growth through the green economy index in realizing environmentally friendly infrastructure in Indonesia. Using a quantitative approach with secondary data over the past 5 years, this study applies path analysis to test the causal relationship between variables. The results show that investment value and green economy have a significant positive effect on economic growth, while fintech does not have a significant effect on the green economy. The green economy is proven to mediate the relationship between investment value and economic growth, but does not mediate the effect of fintech on economic growth. These findings emphasize the importance of policies that integrate investment and green economy principles for sustainable growth

INTRODUCTION

Climate change and global warming have become major challenges for all countries in realizing sustainable development. This threat can reduce the earth's resilience in meeting the welfare, needs, and demands of all people worldwide. To overcome this problem, many countries are improving their economic sectors to find alternative solutions for environmentally friendly energy with low carbon emissions (Gitz et al., 2016).

In response to this issue, in 2008 the United Nations (UN) through the United Nations Environment Program (UNEP) launched the Green Economy Initiatives (GEI) program. This program is based on the fact that over the past 50 years, world economic growth has been followed by a very severe decline in environmental quality. Between 1981 and 2005, the world's Gross Domestic Product (GDP) increased by more than 100%, but in the same period, more than 60% of the world's ecosystems were damaged or used in an unsustainable manner (Kamila Insani, 2023).

In Indonesia, the concept of sustainable green growth or green economy focuses on a people's economy based on natural resources with economic activities that prioritize resource efficiency, are environmentally responsible, improve human and social quality, and support a just and inclusive transition (Wahida & Uyun, 2023). To realize sustainable green growth, the Indonesian Government has formed the Net Zero Emission (NZE) program by mandating massive renewable energy development, a gradual initiative to close coal-fired power plants (PLTU), and reducing carbon emissions by reducing fossil fuel consumption.

As a form of commitment to efforts to reduce greenhouse gas emissions, Indonesia has submitted its Nationally Determined Contribution (NDC) to the United Nations Framework Convention on Climate Change (UNFCCC) with a target of reducing greenhouse gas emissions from the Business as Usual level in 2030 by 29% through national efforts and 41% with international support.

One of the efforts to support the Net Zero Emission (NZE) program is reducing carbon emissions in the transportation sector and developing an electric vehicle ecosystem as stated in Presidential Regulation (PERPRES) Number 79 of 2023 concerning Amendments to Presidential Regulation Number 55 of 2019 concerning the Acceleration of the Battery-Based Electric Motor Vehicle Program for Electric Transportation. This is based on the increasing use of oil and gas-fueled motor vehicles which cause significant greenhouse effects and air pollution, with the contribution of air pollution from the transportation sector reaching 60-70% (Zola et al., 2023).

Therefore, electric vehicles are considered a solution to shift from dependence on fossil fuel vehicles to more environmentally friendly alternative fuels. This transition will be an effective step in overcoming the negative impacts of climate change (Kamila Insani, 2023). However, on the other hand, the most widely used power plant in Indonesia still comes from coal, which is a non-renewable energy source and has the potential to increase greenhouse gas emissions.

Based on the Climate Transparency Report 2022, the mix of renewable energy sources in Indonesia only reached 19% in 2021. Therefore, the use of electric vehicles to reduce gas emissions will be counterproductive for Indonesia if it is not properly calculated, and there is no change in the source of electricity from renewable sources (Putri & Putra, 2024).

Sustainable economic growth is highly dependent on the implementation of policies that support a green economy accompanied by digital financial inclusion. The green economy focuses on reducing carbon emissions and increasing resource efficiency, which not only improves environmental quality but also drives economic growth through investment in green technology and the creation of new jobs. The electric vehicle usage index also plays a crucial role, where increasing the adoption of electric vehicles can reduce dependence on fossil fuels and reduce greenhouse gas emissions, as long as it is supported by environmentally friendly power plants.

Digital financial inclusion also plays a role in accelerating economic growth by expanding financial access for the community, supporting small and medium enterprises, and encouraging investment in green technology and infrastructure. Thus, the synergy between the green economy and digital financial inclusion is expected to create environmentally friendly infrastructure in Indonesia (Sriary Bhegawati & Novarini, 2023).

This study aims to analyze the influence of green economy and digital financial inclusion on investment value and economic growth in realizing environmentally friendly infrastructure in Indonesia. Economic growth achieved through these policies will provide a strong foundation for sustainable development reduce the negative impacts of climate change, and improve people's quality of life. This study will also explore how government policies and international cooperation can accelerate the clean energy transition and encourage investment in green technology, to achieve the net zero emission target and strengthen Indonesia's position in global efforts to address climate change.

LITERATURE REVIEW

1. Green Economy

A green economy, as defined by UNEP, is an economic concept that focuses on carbon emission reduction, resource efficiency, and social inclusiveness. In this paradigm, job and income growth are driven by public and private investment in economic activities, infrastructure, and assets that support carbon emission and pollution reduction, energy and resource efficiency improvements, and biodiversity and ecosystem services conservation (Anwar, 2022). The main objective of the green economy is to create a balance between improving people's welfare and maintaining national economic stability. Therefore, it is important for the government to integrate green economy principles into every economic development policy, both at the micro and macro levels. Green economy programs are expected to be a comprehensive solution to economic problems through a balanced distribution of materials and energy. Consistency in creating environmentally friendly products has the potential to drive sustainable GDP growth. The successful implementation of this concept

depends on the active involvement of economic policymakers, business actors, and other stakeholders in seeking sustainable development alternatives (Mahendradatta et al., 2024). This approach must consider various aspects, including economic, social, political, cultural, and ecological. Green economy policies also need to consider factors such as waste management, natural resource conservation, and improving welfare through better jobs, education, and health. The implementation of this concept covers various sectors, including energy, transportation, agriculture, waste management, and sanitation, to create a dynamic, sustainable, and socially just socio-economic and ecological system (Masruroh, Nikmatul, 2022).

2. Economic Growth

Schumpeter's theory emphasizes that innovation and entrepreneurial creativity are the primary drivers of economic growth, rather than traditional factors such as population or resource constraints (Mukhyar & Puspita, 2022). According to Schumpeter, entrepreneurs drive economic development through innovations, such as new products, more efficient methods of production, the opening of new markets, and the discovery of new resources and industrial organizational structures. Innovations initially provide monopoly advantages, but over time, imitation by competitors spreads the innovation throughout the industry, creating a continuous cycle of innovation that drives long-term economic growth (Aidhi et al., 2023).

3. Financial Technology

FinTech is a loanword from finance and technology. Schueffel defines FinTech as "a new financial industry that applies technology to improve the productivity of financial services." Inherent in this definition is the increase in the efficiency of financial services led by technology and the improvement of social welfare. FinTech is a transformative sector that utilizes innovative software to provide services for financial needs (Kamila Insani, 2023). The sector originated in the United States and has grown rapidly in several countries. In the research of Vikas et al., it was proven that in 2015 public interest in Fintech increased more than fourfold. Because Fintech has additional value, namely being able to optimize financial functions and allocate resources. In addition, by adopting fintech in financial service operations in the company will increase efficiency, make it easier for consumers to understand, and be more transparent in financial services.

4. Investment Value

A country's economy can be identified through growth, increased income, and higher productivity. With limited natural resources, economic stability needs to be maintained to ensure a better life now and in the future. Economic growth plays an important role in creating positive changes from previous conditions and is an indicator of development progress. Increasing the capacity of production of goods and services over a certain period will improve the welfare and prosperity of the community. When the economy grows steadily, various problems can be overcome more easily (Nadzir & Setyaningrum Kenda, 2023).

A country's economic performance is also closely related to globalization, which strengthens economic relations between countries by reducing trade barriers and increasing cross-border capital flows. Foreign Direct Investment (FDI) is seen as an important source of financing for regional development, through effects such as new technology, capital accumulation, and increased exports (Azzahra et al., 2022). FDI also offers opportunities for local industries to develop and can facilitate investment with better stock liquidity. In addition to FDI, domestic investment is also a mainstay for driving sustainable national economic growth, as regulated in the Investment Law No. 25 of 2007 (Zahran, 2020).

5. Gross Domestic Product (GDP)

Gross Domestic Product (GDP) is the main indicator for measuring a country's economic growth, which includes the total value of goods and services produced in a certain period. In the expenditure approach, GDP components consist of public consumption (C), investment (I), government spending (G), exports (X), and imports (M). According to Keynes, high government spending can increase aggregate demand and economic growth. Pamungkas's research (2022) shows that government spending has a positive effect on GDP in 7 ASEAN countries. However, other studies such as those conducted by Safari (2016) show the opposite result, where government spending hurts Indonesia's GDP. In addition to government spending, foreign investment through Foreign Direct Investment (FDI) also plays an important role in increasing GDP by increasing production and technology in recipient countries (Himannudin et al., 2022). Other factors that affect GDP are the workforce and human development states that the workforce has a positive effect on GDP in several ASEAN countries. In addition, increasing the Human Development Index (HDI) can encourage production efficiency, reduce the price of goods and services, and increase public consumption. In Indonesia, in 2023, GDP reached IDR20,892.4 trillion with economic growth of 5.05 percent, lower than the previous year which grew by 5.31 percent. The highest growth in the production sector was recorded in the Transportation and Warehousing Business Field (13.96 percent), while in terms of expenditure, the highest growth was achieved by the Consumption Expenditure of Non-Profit Institutions Serving Households (PK-LNPRT) at 9.83 percent (Jamil & Hayati, 2020).

Hypothesis

1. *The Relationship Between Investment Value and the Green Economy*

Research on the impact of investment on green economic development shows mixed results. Study in Nigeria found that domestic investment increases CO₂ emissions in the short term, while foreign investment reduces CO₂ emissions in the long term. In contrast, Imran et al. stated that Foreign Direct Investment (FDI) can exacerbate environmental degradation and support the "pollution paradise" hypothesis in developing countries. However, argue that FDI in the technology sector can reduce pollution and improve resource efficiency. Foreign investment is considered key to driving a green economy and improving environmental sustainability.

H₁: Investment value affects the green economy

2. The Relationship Between Financial Technology and the Green Economy

Technological advances are considered capable of solving resource problems, improving environmental quality, and supporting a sustainable economy. Found that financial technology plays a role in reducing the risk of climate change and promoting a green economy in Africa. Green finance and financial technology have been shown to support a green economy and sustainable development through various indicators such as inflation, green economy index, and green investment. The relationship between resource consumption, environmental pollution, and economic growth is also emphasized. FinTech, supported by big data, artificial intelligence, and other technologies, has been shown to accelerate the development of green finance and green industry optimization, which ultimately has a positive impact on the environment.

H₂ : Financial technology influences the green economy

3. The Relationship Between Investment Value and Economic Growth

Indonesia, as a developing country, focuses on economic growth and development, where investment is an important factor in supporting this growth. Investment, both foreign and domestic, can increase the capital stock which then increases productivity, capacity, and quality of production, which ultimately drives economic growth. PMA and PMDN investment have a significant effect on economic growth in Bekasi Regency, as indicated by GDP, HDI, and community welfare. research in 33 provinces in Indonesia found that only PMA had a significant effect on economic growth, while PMDN did not. These results are in line with research in North Africa, where PMDN was not the main source of economic growth.

H₃ : Investment value affects economic growth

4. The Relationship Between Financial Technology and Economic Growth

The theory underlying this hypothesis comes from Goodhue and Thompson (1995), which states that information technology, including communication technology, has the potential to have a positive impact on economic growth. Which shows the role of financial technology in increasing economic growth through banking services such as internet banking and mobile banking. Also support that FinTech contributes to economic growth, as seen from the increase in GDP and workforce. In the literature, there are four causal hypotheses that explain the relationship between financial innovation and economic growth. First, the "supply-demand" theory states that FinTech drives economic growth through more efficient financial services. Second, the "demand-following" model explains that economic growth motivates financial innovation, as evidenced. Third, the feedback theory states that financial technology and economic growth are mutually supportive. Finally, the neutral hypothesis states that there is no causal relationship between financial innovation and economic growth.

H₄ : Financial technology influences Indonesia's economic growth

5. *The Relationship Between Green Economy and Economic Growth*

Green economy is an economic system that focuses on sustainability from production to consumption, and plays an important role in supporting sustainable development. With the involvement of public policy and implementation in various regions, green economy can create welfare and social justice while reducing environmental risks. Green economy has great potential to advance Indonesia's economy through the principles of sustainability and wise use of resources. This policy aims to restore the relationship between humans and nature and overcome the global crisis while maintaining environmental balance. Green economy may have a negative impact on GDP growth, but a positive impact on per capita income. Studies in Germany and Italy show that green economy policy is effective in reducing environmental damage and strengthening energy security, making it a suitable model to be applied in these countries.

H₅: Green economy influences economic growth

6. *The Relationship Between Financial Technology and Economic Growth Mediated by the Green Economy*

The relationship between fintech and economic growth, mediated by the green economy, creates a sustainable growth model with fintech driving financial innovations such as digital payments and crowdfunding, while the green economy ensures that such growth also contributes to environmental and social goals, resulting in a more holistic and inclusive economy.

H₆: Green economy mediates the influence of financial technology on economic growth

7. *The Relationship Between Investment Value and Economic Growth Mediated by the Green Economy*

Green economy as a mediating variable changes the relationship between investment value and economic growth by directing investment to sectors that are not only financially profitable but also have a positive impact on the environment and social welfare. This shift encourages wiser investment in utilizing natural resources, supporting clean technology innovation, and creating jobs in the green sector. This makes economic growth more sustainable by expanding the focus from simply increasing GDP to achieving social welfare and environmental sustainability.

H₇: *Green economy memediasi pengaruh nilai investasi terhadap pertumbuhan ekonomi*

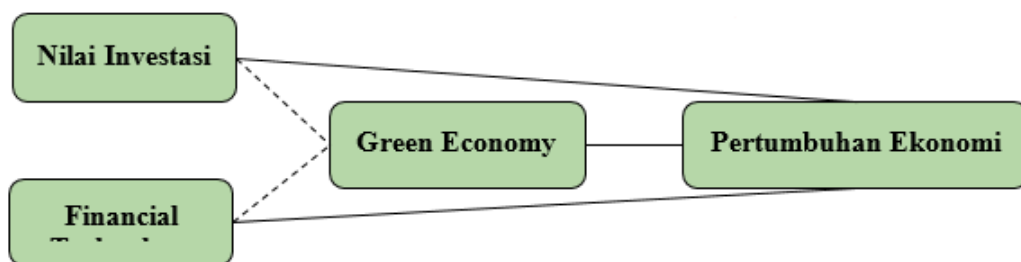


Figure 1. Conceptual Framework

METHODOLOGY

This research applies a quantitative approach in its methodology. This approach is characterized by the use of numerical data processed through statistical techniques to produce measurable and verifiable findings and conclusions. To conduct research on the influence of investment value and financial technology on economic growth through the green economy index in realizing environmentally friendly infrastructure in Indonesia, the right research method needs to be carefully designed. This study will use a quantitative approach with an explanatory research design (Imron, 2019). The data used is secondary data obtained from various official sources such as the Central Statistics Agency (BPS), Bank Indonesia (BI), the Financial Services Authority (OJK), and the Ministry of Environment and Forestry (KLHK). The observation period will cover the last 5 years to ensure a comprehensive analysis of the trends and developments that have occurred. The data analysis technique that will be used is path analysis to test the causal relationship between the independent variables (investment value and financial technology), intervening variables (green economy index), and dependent variables (economic growth and environmentally friendly infrastructure). Before conducting path analysis, a classical assumption test will be conducted to ensure the validity of the model. In addition, to enrich the research results, a descriptive analysis will also be carried out to provide an overview of the development of each variable during the research period. Data processing will use statistical software such as E-Views ensure the accuracy of the analysis results. The research results are expected to provide new insights into how investment value and the development of financial technology can drive sustainable economic growth and the development of environmentally friendly infrastructure in Indonesia (Adnyana, 2021).

RESEARCH RESULT

Table 1. First Multiple Linear Regression Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.467428	0.368869	20.24411	0.0000
PMA	7.53E-06	1.49E-06	5.052103	0.0001
FL	-0.007538	0.002297	-3.281506	0.0047
GE	0.342907	0.030248	11.33653	0.0000

$$Y = C(1) + C(2)*X1 + C(3)*X2 + C(4)*X3$$

$$GDP = 7.461516 + 7.53E-06 (PMA) - 0.007538 (FL) + 0.342907 (GE)$$

T-test

- PMA has a t-statistic value of 5.052103 with a Prob. (significance) value of 0.0001 (<0.05) so it can be concluded that PMA has a significant effect on GDP
- FL has a t-statistic value of -3.281506 with a Prob. (significance) value of 0.0047 (<0.05) so it can be concluded that FL has a significant effect on GDP
- GE has a t-statistic value of 11.33653 with a Prob. (significance) value of 0.000 (<0.05) so it can be concluded that GE has a significant effect on GDP.

Table 2. Second Multiple Linear Regression Test
 Variable Coefficient Std. Error t-Statistic Prob.

C	12.04094	0.468396	25.70675	0.0000
PMA	3.21E-05	9.07E-06	3.542635	0.0025
FL	-0.030621	0.016855	-1.816792	0.0869

$$Y = C(1) + C(2)*X1 + C(3)*X2$$

$$GE = 12.04094 + 3.21E-05 (PMA) - 0.030621 (FL)$$

T-test

- a) PMA has a t-statistic value of 3.542635 with a Prob. (significance) value of 0.0025 (<0.05) so it can be concluded that PMA has a significant effect on GE
- b) FL has a t-statistic value of -1.816792 with a Prob. (significance) value of 0.0869 (>0.05) so it can be concluded that FL does not have a significant effect on GE

Sobel test

Table 3. Sobel Test 1

Input:		Test statistic:		Std. Error:	p-value:
a	3.21E-05	Sobel test:	3.37833696	0.00000326	0.00072926
b	0.342907	Aroian test:	3.36642393	0.00000327	0.0007615
s _a	9.07E-06	Goodman test:	3.39037736	0.00000325	0.00069796
s _b	0.030248	Reset all	Calculate		

The indirect effect of PMA (X1) on GDP (Y), through GE (Z) is the p value of the Sobel test 0.00007 < 0.05, so it can be said that the intervening variable GE (Z) can mediate the relationship between PMA (X1) and GDP (Y).

Table 4. Sobel Test 2

Input:		Test statistic:		Std. Error:	p-value:
a	-0.030621	Sobel test:	-1.7938426	0.00585344	0.0728383
b	0.342907	Aroian test:	-1.78707679	0.0058756	0.07392508
s _a	0.016855	Goodman test:	-1.80068584	0.0058312	0.07175241
s _b	0.030248	Reset all	Calculate		

The indirect effect of FL (X2) on GDP (Y), through GE (Z) is the p value of the Sobel test 0.07283 > 0.05, so it can be said that the intervening variable GE (Z) cannot mediate the relationship between FL (X3) and GDP (Y).

F-test

Table 5. F Test

F-statistic	183.7789
Prob(F-statistic)	0.000000

The F test using the F-statistic value functions to assess the influence of independent variables on the dependent variable as a whole. The criteria used are if the F-statistic value has a probability (p-value) of less than <0.05 , then it can be said that there is a significant influence simultaneously. It is known that the F-Statistic value is 183.7789 with a Prob. (F-Statistic) value of 0.000 (<0.05) then it can be concluded that Variable X has a significant influence simultaneously on the dependent variable Y

Test of Determination Coefficient

Table 6. Coefficient of Determination Test

R-squared	0.971798
Adjusted R-squared	0.966510

The coefficient of determination (R^2) is used to measure the extent to which the research model can explain variations in the dependent variable. Given the Adjusted R Square value of 0.966510, it can be concluded that the influence of the independent variable on the dependent variable simultaneously is 96.66 0% and the remaining 3.0% is influenced by other variables outside the study.

DISCUSSION

The Influence of Investment Value on Economic Growth in Indonesia

The results of the study on the influence of investment value on economic growth in Indonesia show a positive and significant relationship. This finding confirms the classical economic theory which states that investment is one of the main drivers of economic growth. Data analysis shows that every increase in investment value has an impact on increasing the rate of economic growth in Indonesia. This can be explained through a mechanism where investment not only increases the capital stock in the economy, but also encourages technology transfer, increases productivity, and creates new jobs. Furthermore, this study reveals that investment, both from domestic and foreign sources, contributes positively to various sectors of the Indonesian economy. Sectors such as manufacturing, infrastructure, and information technology appear to benefit significantly from investment flows. The findings of this study also highlight the importance of investment quality, not just quantity. Investments that are oriented toward increasing productivity, innovation, and human resource development appear to have a greater impact on long-term economic growth. Therefore, the government's strategy in attracting and managing investment should not only focus on increasing the amount of investment but also consider how the investment can contribute to increasing the productive capacity and competitiveness of the national economy. Thus, the results of this study confirm that investment remains a crucial component in Indonesia's economic development strategy, with the note that its management must be carried out strategically and in a targeted manner to maximize its benefits for sustainable economic growth.

The Influence of Financial Technology on Economic Growth in Indonesia

The results of the study on the influence of financial technology (fintech) on economic growth in Indonesia show a positive and significant relationship, underlining the important role of fintech as a catalyst in driving national economic growth. Data analysis reveals that the development and adoption of fintech in various financial sectors has contributed to increasing transaction efficiency, expanding access to financial services, and increasing financial inclusion, which in turn stimulates economic activity, especially in the MSME sector and the digital economy. Fintech has enabled a more efficient allocation of financial resources, reduced intermediation costs, and accelerated the circulation of money in the economy. The positive impact of fintech is not only limited to the financial sector, but also extends to various other aspects of the economy, with innovations such as digital payments, peer-to-peer lending, and crowdfunding opening up new opportunities for entrepreneurs and driving innovation in various industries. This creates a multiplier effect that drives productivity, creates new jobs, and increases the competitiveness of the national economy. These findings emphasize the importance of policies that support the development of the fintech ecosystem, while still paying attention to regulatory and risk management aspects so that fintech is not only an instrument for modernizing the financial sector but also a driver of the digital transformation of the Indonesian economy as a whole.

The Influence of Investment Value on the Green Economy in Indonesia

The results of the study on the influence of foreign direct investment investment value on the green economy in Indonesia show a positive and significant relationship, confirming the important role of investment in the environmentally friendly sector to drive the development of the green economy. Data analysis reveals that investment in clean technology, renewable energy, and sustainable business practices have contributed to the growth of Indonesia's green economy, reflected in increased resource efficiency, reduced carbon emissions, and the creation of green jobs. The study also underlines the crucial role of investment in driving innovation and adoption of environmentally friendly technologies, which enhance the competitiveness of Indonesian industries in the global market and contribute to improving environmental quality and conserving natural resources. These findings highlight the importance of government policies in creating a conducive investment climate for the development of the green economy, including fiscal incentives, supportive regulations, and effective public-private partnerships. Thus, the results of this study confirm that responsible and sustainability-oriented investment is not only economically profitable, but also contributes significantly to environmental protection and long-term social welfare in Indonesia, accelerating the transition to a more resilient and sustainable green economy.

The Influence of Financial Technology on the Green Economy in Indonesia

The results of the study showing that financial technology (fintech) has no significant effect on the green economy in Indonesia are interesting findings and need to be studied further. Although fintech has been shown to have a positive impact on economic growth in general, its relationship with the green economy does not seem to be directly visible. This may be due to several factors. First, the

development of fintech in Indonesia may still be more focused on aspects of financial inclusion and transaction efficiency, not specifically directed at supporting environmentally friendly initiatives. Second, there may be a gap between fintech innovation and the specific needs of the green economy sector, such as financing renewable energy projects or incentives for sustainable business practices. Third, the lack of integration between fintech development policies and the national green economy strategy could be the cause of the lack of significant influence.

This finding underscores the importance of aligning fintech development with the goals of the green economy in Indonesia. More focused efforts are needed to integrate sustainability principles into fintech innovation. For example, developing a crowdfunding platform specifically for green projects, a payment system that encourages more sustainable consumer behavior, or digital financial products that specifically support small and medium enterprises (SMEs) in adopting green business practices. In addition, the government and regulators need to consider policies that can bridge the gap between fintech and the green economy, such as incentives for fintech that focus on green solutions or regulations that encourage digital financial institutions to consider environmental factors in their financing decisions. With a more integrated approach, fintech has the potential to become an important catalyst in Indonesia's transition to a greener and more sustainable economy in the future.

The Influence of Green Economy on Economic Growth in Indonesia

The results of the study show that the implementation of the green economy has a positive impact on economic growth in Indonesia. The green economy approach that emphasizes the sustainable use of natural resources and reducing negative impacts on the environment has been proven to be able to encourage more stable economic growth. Increased investment in environmentally friendly sectors such as renewable energy, organic farming, and ecotourism has created new jobs and increased community income. In addition, the implementation of the green economy concept encourages innovation in environmentally friendly technologies, increases the efficiency of resource use, and opens up opportunities for exporting environmentally friendly products, thereby increasing Indonesia's competitiveness in the global market. Adopting a green economy also helps reduce dependence on non-renewable resources, strengthens long-term economic resilience, and creates a strong foundation for sustainable growth, while improving the quality of life of the community through improving environmental quality.

The Influence of Investment Value on Economic Growth in Indonesia Mediated by the Green Economy Variable

The results of the study show that the influence of investment value on economic growth in Indonesia, when mediated by the green economy variable, produces a positive impact. This finding indicates that investment allocated to environmentally friendly sectors can provide a significant boost to economic growth, both in the short and medium term. This is driven by the high interest of investors and fiscal and non-fiscal incentives from the government for projects that apply the principle of sustainability, in addition to the efficient use of natural resources in green economy policies. This principle not only protects the

environment but also encourages inclusive and sustainable economic growth. With increasing awareness of the environment and limited natural resources, foreign investment directed to the green sector has the potential to be an important catalyst for sustainable economic growth in Indonesia. However, an integrated and contextual approach is needed to ensure that the contribution of this investment remains in line with environmental sustainability goals.

The influence of Financial Technology on Economic Growth in Indonesia Mediated by the Green Economy Variable

The results of the study on the influence of financial technology on economic growth in Indonesia mediated by the green economy variable show negative or no effect. Although fintech has grown rapidly in Indonesia, its integration with the green economy concept has not succeeded in providing a significant positive impact on economic growth. This may be due to the lack of synergy between fintech innovation and green economy initiatives, limited regulations that support the integration of the two sectors, or because the adoption of green finance through fintech platforms is still in its early stages and has not reached a sufficient scale to provide measurable economic impact. In addition, these negative results also indicate the potential for short-term trade-offs between fintech adoption, green economy implementation, and conventional economic growth, where the investment and resources allocated have not yet generated significant returns. The challenge in aligning fintech innovation with sustainability principles may create inefficiencies or additional costs that affect overall economic growth. These findings highlight the need for further evaluation of fintech and green economy integration strategies and the importance of creating a supportive ecosystem so that these two sectors can synergize effectively to drive sustainable economic growth in Indonesia.

CONCLUSIONS AND RECOMMENDATIONS

Investment in general has a positive and significant impact on Indonesia's economic growth, driving technology transfer, increasing productivity, and creating new jobs. Similarly, fintech shows a positive impact on economic growth by increasing transaction efficiency and financial inclusion. And when mediated by the green economy, investment has a positive impact on economic growth. However, fintech shows negative results on economic growth when mediated by the green economy. This indicates challenges in integrating the concept of the green economy with fintech innovation, perhaps due to the lack of supporting infrastructure, or the failure to achieve the necessary economies of scale. These findings highlight the need for evaluation and adjustment in the implementation strategy of the green economy in order to more effectively support sustainable economic growth in Indonesia.

FURTHER STUDY

Based on the research findings presented, further studies can be focused on an in-depth exploration of the integration of fintech with the green economy concept in Indonesia. This research can investigate specific factors that cause the lack of synergy between fintech innovation and green economy initiatives, and identify concrete strategies to overcome these challenges. Studies can include comparative analysis with other countries that have successfully integrated fintech and the green economy, evaluation of policies and regulations needed to support this integration, and the development of innovative business models that can bridge the gap between fintech and the green economy. In addition, research can also focus on the development of new metrics and indicators to measure the economic impact of fintech and green economy integration more accurately, as well as exploring the potential of new technologies such as blockchain or artificial intelligence in supporting synergy between fintech and the green economy to drive sustainable economic growth in Indonesia.

REFERENCES

- Adnyana, I. M. D. M. (2021). Populasi dan Sampel. *Metode Penelitian Pendekatan Kuantitatif*, 14(1), 103–116.
- Aidhi, A. Al, Harahap, M. A. K., Rukmana, A. Y., Palembang, S. P., & Bakri, A. A. (2023). Peningkatan Daya Saing Ekonomi melalui peranan Inovasi. *Jurnal Multidisiplin West Science*, 2(02), 118–134. <https://doi.org/10.58812/jmws.v2i02.229>
- Anwar, M. (2022). Green Economy Sebagai Strategi Dalam Menangani Masalah Ekonomi Dan Multilateral. *Jurnal Pajak Dan Keuangan Negara (PKN)*, 4(1S), 343–356. <https://doi.org/10.31092/jpkn.v4i1s.1905>
- Azzahra, F. R., Najamuddin Khairur Rijal, & Devita Prinanda. (2022). Dampak Ekspor-Impor terhadap Pertumbuhan Ekonomi di Kawasan Perdagangan Bebas dan Pelabuhan Bebas (KPBPB) Batam. *NeoRespublica: Jurnal Ilmu Pemerintahan*, 4(1), 69–82. <https://doi.org/10.52423/neores.v4i1.16>
- Dewi Ayu Marchela Putri, & Langgeng Rachmatullah Putra. (2024). Strategi Kebijakan Pertumbuhan Hijau (Green Growth) Indonesia: Dalam Adaptasi Perubahan Iklim. *Journal Publicuho*, 7(2), 916–925. <https://doi.org/10.35817/publicuho.v7i2.447>
- Gitz, V., Meybeck, A., Lipper, L., Young, C., & Braatz, S. (2016). Climate change and food security: Risks and responses. In *Food and Agriculture Organization of the United Nations*. <https://doi.org/10.1080/14767058.2017.1347921>

- Himannudin, F., Marselina, M., Ratih, A., & Murwiati, A. (2022). Determinan Produk Domestik Bruto Di Asia Tenggara. *Klassen*, 2(2), 126–140. <http://journal.unbara.ac.id/index.php/klassen/article/view/1702%0Ahttps://journal.unbara.ac.id/index.php/klassen/article/download/1702/1084>
- Imron, I. (2019). Analisa Pengaruh Kualitas Produk Terhadap Kepuasan Konsumen Menggunakan Metode Kuantitatif Pada CV. Meubele Berkah Tangerang. *Indonesian Journal on Software Engineering (IJSE)*, 5(1), 19–28. <https://doi.org/10.31294/ijse.v5i1.5861>
- Jamil, P. C., & Hayati, R. (2020). Penanaman Modal Asing di Indonesia. *Jurnal Ekonomi KIAT*, 31(2), 1–4. <https://journal.uir.ac.id/index.php/kiat>
- Kamila Insani. (2023). Peran United Nation Environment Programme (UNEP) Sebagai Lembaga Lingkungan Hidup Internasional dalam Pengelolaan Lingkungan Hidup. *Unes Law Review*, 6(2), 6075. <https://review-unes.com/index.php/law/article/view/1444>
- Khoirunisa Wahida, & Hoirul Uyun. (2023). Tatanan Indonesia Dalam Mewujudkan Pertumbuhan Ekonomi Berkelanjutan Melalui Green Economy. *Harmoni: Jurnal Ilmu Komunikasi Dan Sosial*, 1(2), 14–26. <https://doi.org/10.59581/harmoni-widyakarya.v1i2.291>
- Mahendradatta, U., Ken Arok No, J., Denpasar Utara, K., & Denpasar, K. (2024). Peranan Green Economy Menjadi Strategi Dalam Memperbaiki Pemulihan Ekonomi Serta Multilateral I Kadek Donny Wishanesta. *Journal on Education*, 06(02), 13110–13119.
- Masruroh, Nikmatul, E. a. (2022). Ekonomi Sirkular dan Pembangunan Berkelanjutan. In *Jejak Pustaka (Issue July)*.
- Mukhyar, & Puspita, Y. (2022). Analisis Ekonomi Entrepreneurship. *Jurnal Ar-Ribhu*, 5(2), 372–384. <https://doi.org/10.46781/ar-ribhu.v5i2.658>
- Nadzir, M., & Setyaningrum Kenda, A. (2023). Investasi asing dan investasi dalam negeri: Pengaruhnya pada pertumbuhan ekonomi di indonesia. *Jurnal Ilmiah Mahasiswa Akuntansi) Universitas Pendidikan Ganesha*, 14, 1.
- Sriary Bhegawati, D. A., & Novarini, N. N. A. (2023). Percepatan Inklusi Keuangan untuk Meningkatkan Pertumbuhan Ekonomi, Lebih Terinklusif, dan Merata Di Era Presidensi G20. *Jurnal Akuntansi, Manajemen, Bisnis Dan Teknologi (AMBITEK)*, 3(1), 14–31. <https://doi.org/10.56870/ambitek.v3i1.60>

- Zahran, V. Z. Z. A. (2020). Pengaruh Foreign Direct Investment dan Ekspor Terhadap Pertumbuhan Ekonomi Indonesia. *Jurnal Ilmiah Mahasiswa FEB*, 8(1), 1-15. <https://jimfeb.ub.ac.id/index.php/jimfeb/article/view/6399>
- Zola, G., Nugraheni, S. D., Rosiana, A. A., Pambudy, D. A., & Agustanta, N. (2023). Inovasi kendaraan listrik sebagai upaya meningkatkan kelestarian lingkungan dan mendorong pertumbuhan ekonomi hijau di Indonesia. *Journal of Public ...*, 11(3), 159-170. <https://journal.student.uny.ac.id/index.php/joppar/article/view/20712>
[%0Ahttps://journal.student.uny.ac.id/index.php/joppar/article/viewFile/20712/18383](https://journal.student.uny.ac.id/index.php/joppar/article/viewFile/20712/18383)