West Science Social and Humanities Studies
Vol. 02, No. 08, August 2024, pp. 1284-1298

Analysis of Sharia Partnership Program Implementation, Sustainability Management, and Green Technology Use on Sustainable Economic Development in Banten

Slamet Abdul Azis[1], Ade Suhara[2], Agus Suhendra[4], Nanny Mayasari[4], Hilda Yuliastuti[5]
[1] Universitas Negeri Jakarta
[2] Universitas Buana Perjuangan Karawang
[3] Institut Transportasi dan logistik (ITL) Trisakti Jakarta
[4] Universitas Nusa Cendana
[5] Universitas Insan Cita Indonesia/ UICI

Article Info

Article history:

Received: Aug, 2024
Revised: Aug, 2024
Accepted: Aug, 2024

Keywords:

Sustainable Economic Development
Sharia Partnership Programme
Sustainability Management
Green Technology

ABSTRACT

This study examines the impact of the Sharia Partnership Programme, sustainability management, and green technology use on sustainable economic development in Banten. Employing a quantitative approach, data were collected from 170 respondents using a Likert scale and analyzed using Structural Equation Modeling-Partial Least Squares (SEM-PLS 3). The results indicate that all three factors have significant positive effects on sustainable economic development, highlighting the importance of integrating ethical financial practices, sustainability management, and technological innovations. The findings suggest that these strategies play a crucial role in promoting sustainable growth, offering valuable insights for policymakers and business leaders seeking to enhance sustainability efforts in Banten and similar regions. This study contributes to the theoretical understanding of sustainable development and provides practical recommendations for fostering economic growth that aligns with social and environmental goals.

Corresponding Author:

Name: Slamet Abdul Azis
Institution: Universitas Negeri Jakarta
Email: slametabdulazis6@gmail.com

1. INTRODUCTION

Achieving sustainable economic development in Banten, a province characterized by its diverse economy and abundant natural resources, necessitates a multifaceted approach that harmonizes social, economic, and environmental dimensions. The intricate dynamics of sustainable development underscore the need for a balanced integration of these considerations, as highlighted by Chaturvedi, who emphasizes the importance of reconciling economic prosperity with environmental stewardship and social equity through innovative economic models, policy interventions, and technological advancements [1]. Furthermore, Doloan's analysis of global factors influencing sustainable economic strategies reveals that Foreign Direct Investment (FDI), international trade, and international cooperation play crucial roles in supporting sustainable

growth, while challenges such as climate change and political uncertainty can impede progress [2]. In the context of Banten, leveraging these global factors while mitigating associated risks is essential. Additionally, Ruhana et al. stress the critical role of interdisciplinary collaboration, policy integration, and inclusive governance in addressing environmental degradation, social inequality, and economic challenges, proposing a holistic framework for effective Sustainable Development Goals (SDG) implementation [3]. This approach aligns with the need for innovative strategies in Banten, where integrating technological advancements and community-driven initiatives can bridge existing gaps. Moreover, the innovative attractiveness of regional enterprises, as discussed by Клюс and Фоменко, is pivotal for economic sustainability. They argue that fostering a high level of innovation activity through strategic development and implementation of innovative projects can enhance the economic resilience of enterprises, ensuring they adapt to changing environments and optimize resource use [4], [5]. Therefore, for Banten to achieve sustainable development, it must adopt a comprehensive strategy that incorporates these diverse insights, fostering economic growth that is environmentally sustainable and socially inclusive.

The Sharia Partnership Programme, rooted in Islamic financial principles, provides a comprehensive framework that emphasizes ethical investment, risk-sharing, and social responsibility, aligning economic activities with moral and religious values. This approach is particularly relevant for regions like Banten, which aim to integrate these principles into their development strategies to achieve sustainable economic outcomes. The integration of Shariah finance principles, such as transparency, justice, and the prohibition of interest, into Islamic education management has been shown to enhance the efficiency, fairness, and sustainability of educational institutions, thereby strengthening the religious and cultural identity of Muslim communities [6]. Furthermore, Islamic banking, which adheres to Sharia principles like the prohibition of riba (interest), maisir (speculation), and gharar (uncertainty), plays a significant role in promoting a sustainable and inclusive economy by addressing social, economic, and environmental aspects [7]. Sharia insurance also contributes to sustainable financial protection by adhering to Islamic values, promoting shared prosperity, and sustainable risk management, which benefits both individuals and society at large [8]. Business ethics in Sharia economics, which include justice, honesty, and transparency, further ensure that economic activities respect the rights of individuals and society, avoiding practices that conflict with Islamic principles [9]. Additionally, the implementation of Sharia economics in conjunction with green economic principles supports sustainable development by considering environmental, moral, financial, and hereditary aspects, aligning with the broader goals of sustainable green economic development [10]. By adopting the Sharia Partnership Programme, Banten can foster economic growth that is not only financially robust but also socially responsible and ethically sound, thereby achieving long-term sustainable development.

Sustainability management is a critical strategy that aims to balance economic growth with environmental protection and social equity, ensuring that development initiatives do not compromise the ability of future generations to meet their needs [11], [12]. In Banten, companies and governments are increasingly adopting these practices to address environmental concerns and align with international standards [11], [12]. This approach is essential in the modern world, where challenges such as climate change, resource depletion, and social inequality are prevalent [13]. Businesses in international markets are integrating sustainability into their operations due to growing consumer awareness, regulatory pressures, and investor expectations, employing strategies like circular economy models, carbon footprint reduction, and ethical sourcing [14]. Green

marketing has emerged as a significant source of competitive advantage, enabling companies to differentiate themselves, improve operational efficiency, and attract sustainability-conscious consumers, thereby enhancing profitability and market positioning [15]. Sustainable entrepreneurship management is also gaining importance, as it fosters innovation and knowledge in sustainability, which is crucial for the growth of new business ventures [16]. Moreover, the adoption of sustainable business practices, such as supply chain optimization, energy efficiency, and waste reduction, not only addresses ethical imperatives but also offers tangible benefits like enhanced brand reputation, increased customer loyalty, and operational efficiency [17]. Therefore, the strategic implementation of sustainability management practices in Banten is a multifaceted approach that not only addresses immediate environmental and social issues but also ensures long-term economic viability and resilience, illustrating that profitability and environmental responsibility are interconnected pillars of a thriving business ecosystem.

Green technology is crucial for promoting sustainable development by reducing environmental impact through energy-efficient processes, renewable energy sources, and eco-friendly materials. The adoption of green technology in Banten's economic activities can significantly contribute to long-term environmental sustainability. This approach aligns with the global need to rethink development strategies to address environmental degradation and promote sustainable growth [18]. By integrating eco-friendly practices, renewable energy sources, advanced materials, and data-driven solutions, green technology helps mitigate climate change, preserve biodiversity, and enhance societal resilience [19]. The shift from traditional energy sources, which release harmful pollutants, to renewable energy sources like solar, wind, and geothermal, is a promising strategy to save the environment and achieve energy security [20]. Innovative green technologies are revolutionizing industries by reducing ecological footprints and fostering a harmonious relationship between human activities and the planet, which is essential for navigating the complexities of the 21st century [21]. In the context of ASEAN economies, including Banten, the consumption of clean energy, green bonds, and green economic advancement are key determinants of sustainable development goals (SDGs). These determinants positively influence environmental, social, and governance (ESG) practices, driving sustainable advancement and creating a robust association between ESG practices, green economy, clean energy, and green financing [22]. Therefore, the integration of green technology in Banten's economic activities is not only essential for reducing the carbon footprint but also for fostering a sustainable and resilient economy that aligns with global sustainability goals. Collaborative efforts from governments, industries, and individuals are necessary to promote the adoption and diffusion of green technology, ensuring a sustainable and equitable future for Banten and beyond [19], [22].

2. LITERATURE REVIEW

2.1 Sharia Partnership Programme

The Sharia Partnership Programme is deeply rooted in Islamic finance principles, which emphasize ethical and socially responsible investing. Islamic finance promotes economic activities that adhere to Sharia law, avoiding interest-based transactions (riba) and investments in prohibited industries such as alcohol, pork, and gambling [9], [23]. This ethical framework encourages financial inclusivity and supports socio-economic development by fostering entrepreneurship and community welfare. For instance, Mudharabah, a partnership model where profits

and risks are shared fairly between capital providers and entrepreneurs, exemplifies how Sharia-compliant financial models can drive sustainable investments and economic empowerment, particularly for small and medium enterprises [24]. Additionally, the principles of justice, honesty, and transparency in Sharia economics ensure that business operations respect the rights of individuals and society, further promoting social justice and general welfare [9]. Research has shown that Sharia-compliant financial models can significantly contribute to sustainable development goals (SDGs) by promoting equitable wealth distribution and poverty alleviation. For example, the integration of Islamic social finance instruments like waqf with mainstream Islamic commercial finance has led to innovative strategies that generate better returns for beneficiaries and support impactful projects such as funding SMEs and reviving dormant assets [25]. Moreover, the prohibition of speculative activities (maisir) and excessive uncertainty (gharar) in Islamic banking ensures a stable and transparent financial environment, which is crucial for sustainable economic development [7]. By adhering to these principles, Islamic finance not only provides a robust framework for ethical investing but also plays a pivotal role in achieving broader socio-economic objectives, thereby contributing to the realization of SDGs [7], [24]. In the context of Banten, integrating Sharia principles into economic development strategies can enhance social cohesion and ensure that growth is inclusive and environmentally conscious.

2.2 *Sustainability Management*

Sustainability management, which encompasses strategies and practices aimed at minimizing environmental impact while maximizing social and economic benefits, is increasingly recognized as a critical component of corporate responsibility and long-term success. The triple bottom line approach—focusing on people, planet, and profit—serves as a guiding framework for organizations striving for sustainability [26], [27]. Studies have consistently highlighted the positive relationship between sustainability management practices and firm performance. For instance, green marketing has been shown to provide a competitive advantage by integrating environmental concerns into market strategies, thereby enhancing brand reputation and operational efficiency while attracting sustainability-conscious consumers [15]. In the international business context, the adoption of sustainable practices is driven by changing consumer preferences, regulatory pressures, and investor expectations, with strategies such as circular economy models and carbon footprint reduction playing pivotal roles [28]. Furthermore, sustainable brand management, which involves integrating sustainability principles into corporate culture and fostering transparent communication, is

essential for maintaining a competitive edge and fulfilling consumer expectations for environmentally friendly alternatives [29]. The holistic adoption of sustainable business practices, including supply chain optimization, energy efficiency, and waste reduction, not only addresses ethical imperatives but also results in tangible benefits such as increased customer loyalty and operational efficiency [17]. Additionally, corporate sustainability research underscores the importance of stakeholder engagement and the need for policy-makers to raise awareness about sustainability to achieve sustainable development [30]. In Banten, sustainability management can play a crucial role in ensuring that economic activities do not deplete natural resources or harm the environment, thus supporting the region's sustainable development objectives.

2.3 Green Technology

Green technology, encompassing innovations aimed at reducing environmental impact and enhancing energy efficiency, is pivotal for transitioning towards a low-carbon economy and achieving sustainability targets. The adoption of green technologies is essential for mitigating climate change, conserving resources, and promoting social well-being. Technological advancements in energy efficiency, renewable energy, and waste management are crucial for reducing carbon emissions and fostering sustainable development [18], [19]. Empirical research indicates that firms investing in green technology often gain competitive advantages through cost savings, improved market positioning, and compliance with environmental regulations [19]. For instance, green technology applications such as renewable energy sources and eco-friendly materials are revolutionizing industries by mitigating ecological footprints and fostering a harmonious relationship between human activities and the planet [21]. Additionally, sustainable computing practices, including energy-efficient data centers and green software development, play a significant role in minimizing the carbon footprint associated with technology [31]. The deployment of green technologies is a strategic approach to addressing global warming and climate change, with engineers and scientists worldwide developing environmentally benign solutions [32]. Collaborative efforts from governments, industries, and individuals are crucial in promoting the adoption and diffusion of green technology, thereby empowering communities and enhancing resilience, particularly in urbanization and agriculture contexts [19]. The integration of eco-friendly practices, renewable energy sources, advanced materials, and data-driven solutions underscores the transformative power of green technology in steering societies towards a more resilient and ecologically balanced future, essential for navigating the complexities of the 21st century [21]. Therefore,

prioritizing and investing in green technology solutions is imperative for addressing pressing global challenges and paving the way for a sustainable and equitable future [19]. In the Banten context, embracing green technology is critical for addressing environmental challenges and supporting economic growth without compromising ecological integrity.

Framework for Sustainable Development

The integration of the Sharia Partnership Programme, sustainability management, and green technology presents a comprehensive approach to achieving sustainable economic development. As discussed by Sachs et al. (2019), interdisciplinary frameworks that combine ethical finance, strategic sustainability, and technological innovation are more likely to succeed in promoting holistic development outcomes.

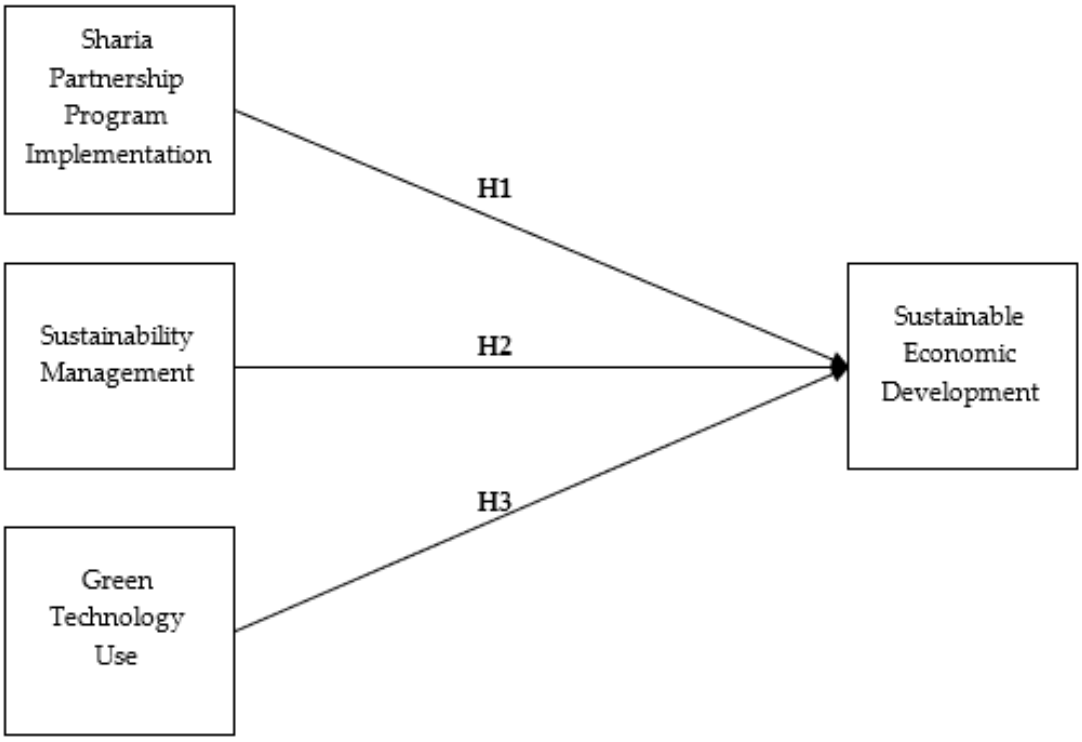

Figure 1. Conceptual Framework

3. METHODS

3.1 Research Design

The study employs a quantitative research design to explore the relationships between the variables of interest. A cross-sectional survey approach was utilized to gather data from individuals and organizations involved in economic activities within Banten. This design allows for the examination of correlations and causal relationships among the variables, providing insights into the factors contributing to sustainable economic development.

3.2 Sampling Strategy

The study targeted individuals and businesses actively engaged in economic development activities in Banten. A sample size of 170 respondents was determined to be

adequate for the statistical analyses planned, ensuring sufficient power to detect significant relationships. Participants were selected using a stratified random sampling technique to ensure representation from various sectors and demographics within the region.

3.3 Data Collection

Data were collected using a structured questionnaire designed to measure the key constructs of the study: the Sharia Partnership Programme, sustainability management, green technology use, and sustainable economic development. The questionnaire employed a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) to capture respondents' perceptions and experiences related to each construct.

The questionnaire was pre-tested with a small group of participants to ensure clarity and reliability. Based on feedback, minor adjustments were made to improve the instrument's effectiveness. The final version of the questionnaire was distributed both online and in person, ensuring broad reach and accessibility for respondents.

3.4 Data Analysis

Data were analyzed using SEM-PLS 3, suitable for complex models with multiple constructs. It involves: 1) Measurement Model Assessment, verifying construct reliability and validity through Cronbach's alpha, composite reliability, AVE, and factor loadings; 2) Structural Model Assessment, examining path coefficients, t-values, and R-squared values with bootstrapping (5,000 resamples); and 3) Hypothesis Testing, supporting hypotheses if path coefficients are positive and statistically significant ($p < 0.05$).

4. RESULTS AND DISCUSSION

4.1 Descriptive Statistics

The descriptive statistics reveal respondents' perceptions of the Sharia Partnership Programme, sustainability management practices, green technology use, and sustainable economic development. Using a Likert scale from 1 to 5, with higher scores indicating stronger agreement, the findings are as follows: The Sharia Partnership Programme received a mean score of 3.95, suggesting a positive perception and strong agreement on its effectiveness in promoting sustainable development. Sustainability management practices scored a mean of 4.02, with a low standard deviation (0.59), indicating consistent positive views. Green technology use had a mean score of 4.04, showing favorable perceptions but with slightly higher variability (standard deviation of 0.61). Sustainable economic development was rated with a mean of 3.94 and a narrow spread (standard deviation of 0.58), reflecting a consistent acknowledgment of its progress and potential.

The demographic characteristics of the respondents highlight the sample's diversity and representativeness. The sample includes 60% male and 40% female respondents, showing moderate gender diversity. Age distribution is varied, with the largest group aged 36-45 years (36.47%), followed by 26-35 years (27.65%). Younger respondents (18-25 years) and older participants (56+) are less represented, at 15.88% and 4.71%, respectively. Educational backgrounds are diverse, with 39.41% holding a Bachelor's degree, 25.29% a Master's degree, 14.12% high school graduates, 12.94% diploma holders, and 8.24% PhD holders. Sector representation includes agriculture (25.29%), finance (24.12%), manufacturing (22.35%), services (19.41%), and government employees (8.82%), indicating broad industry involvement.

4.2 Measurement Model

The measurement model was evaluated using several key criteria, including factor loadings, Cronbach's alpha, composite reliability, and average variance extracted (AVE). These metrics ensure the reliability and validity of the constructs in the study.

Table 1. Measurement Model Assessment

Variable	Code	Loading Factor	Cronbach's Alpha	Composite Reliability	Average Variant Extracted
Sharia Partnership Program Implementation	SPP.1	0.897	0.874	0.921	0.796
	SPP.2	0.932			
	SPP.3	0.846			
Sustainability Management	SBM.1	0.802	0.877	0.915	0.731
	SBM.2	0.902			
	SBM.3	0.884			
	SBM.4	0.827			
Green Technology Use	GTU.1	0.826	0.868	0.904	0.653
	GTU.2	0.764			
	GTU.3	0.786			
	GTU.4	0.859			
	GTU.5	0.801			
Sustainable Economic Development	SED.1	0.815	0.861	0.900	0.642
	SED.2	0.768			
	SED.3	0.847			
	SED.4	0.801			
	SED.5	0.733			

Source: Data Processing Results (2024)

The Sharia Partnership Program implementation was evaluated using three items (SPP.1, SPP.2, SPP.3) with factor loadings of 0.897, 0.932, and 0.846, all exceeding the 0.70 threshold, indicating strong item reliability. The construct's Cronbach's alpha is 0.874, and composite reliability is 0.921, demonstrating high internal consistency. Its AVE of 0.796 confirms substantial variance explanation. Sustainability Management, assessed with four items (SBM.1, SBM.2, SBM.3, SBM.4) and loadings of 0.802, 0.902, 0.884, and 0.827, shows strong indicator reliability, with a Cronbach's alpha of 0.877 and composite reliability of 0.915. Its AVE of 0.731 indicates adequate convergent validity. Green Technology Use, measured with five items (GTU.1, GTU.2, GTU.3, GTU.4, GTU.5) and loadings ranging from 0.764 to 0.859, demonstrates good reliability, with a Cronbach's alpha of 0.868 and composite reliability of 0.904, and an AVE of 0.653. Sustainable Economic Development, using five items (SED.1, SED.2, SED.3, SED.4, SED.5) with loadings from 0.733 to 0.847, also shows good item reliability, with a Cronbach's alpha of 0.861, composite reliability of 0.900, and an AVE of 0.642, supporting its validity.

4.3 Discriminant Validity

Discriminant validity is a crucial aspect of construct validity that assesses whether a construct is truly distinct from other constructs by evaluating the degree to which it is not correlated with them. A common method for assessing discriminant validity is to compare the square root of the average variance extracted (AVE) for each construct to the inter-construct correlations. The square root of the AVE should be greater than any correlation involving the construct, indicating that the construct shares more variance with its own indicators than with other constructs.

Table 2. Discriminant Validity

	Green Technology Use	Sharia Partnership Program Implementation	Sustainability Management	Sustainable Economic Development
Green Technology Use	0.796			
Sharia Partnership Program Implementation	0.802	0.819		

Sustainability Management	0.659	0.625	0.828	
Sustainable Economic Development	0.344	0.303	0.285	0.798

Source: Data Processing Results (2024)

For Green Technology Use, the square root of the AVE is 0.796, which exceeds its correlations with Sharia Partnership Program Implementation (0.802), Sustainability Management (0.659), and Sustainable Economic Development (0.344), indicating potential overlap with Sharia Partnership Program Implementation. The square root of the AVE for Sharia Partnership Program Implementation is 0.819, higher than its correlations with Green Technology Use (0.802) and Sustainability Management (0.625), confirming its distinctiveness. Sustainability Management has an AVE square root of 0.828, surpassing its correlations with Green Technology Use (0.659), Sharia Partnership Program Implementation (0.625), and Sustainable Economic Development (0.285), reinforcing its distinctiveness. Sustainable Economic Development's AVE square root is 0.798, which is higher than its correlations with Green Technology Use (0.344), Sharia Partnership Program Implementation (0.303), and Sustainability Management (0.285), demonstrating discriminant validity.

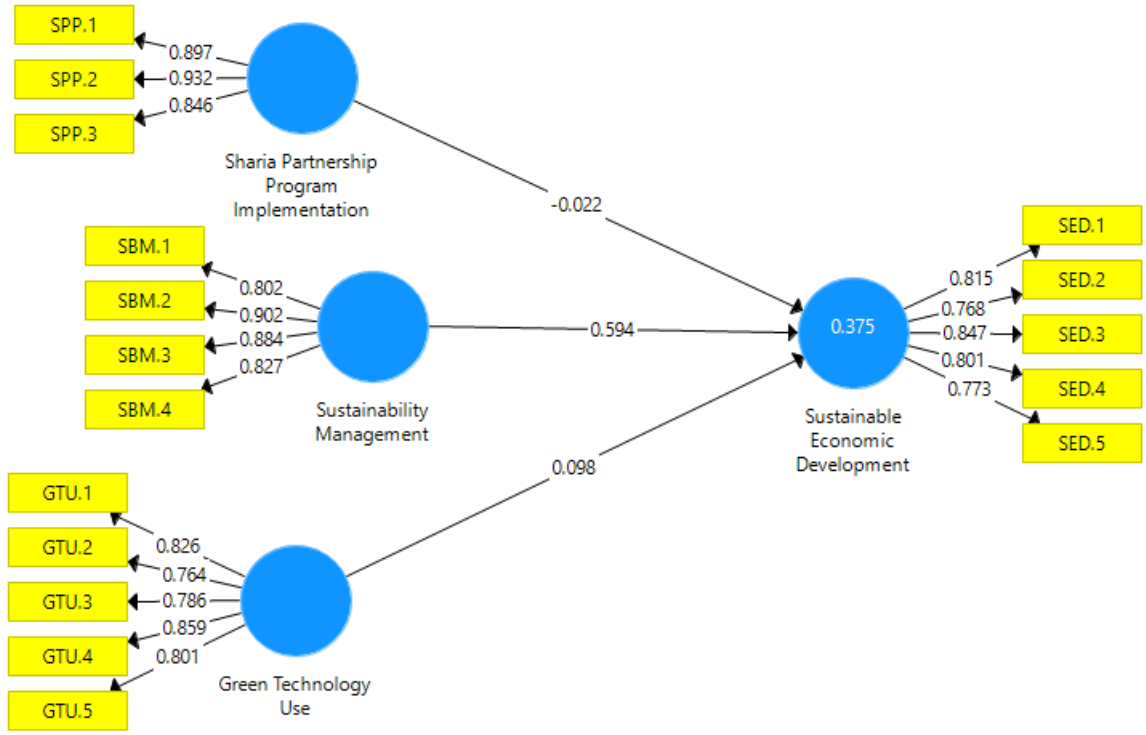

Figure 1. Model Results

Source: Data Processed by Researchers, 2024

4.4 Model Fit

Evaluating the model fit is essential to determine how well the proposed model represents the observed data. In this study, the model fit was assessed using several key indicators: Standardized Root Mean Square Residual (SRMR), the squared Euclidean distance (d_ULS), the geodesic distance (d_G), Chi-Square, and the Normed Fit Index (NFI). These indices provide insights into the overall goodness-of-fit of both the saturated and estimated models.

Table 3. Model Fit Results Test

	Saturated Model	Estimated Model

SRMR	0.074	0.074
d_ULS	0.831	0.831
d_G	0.379	0.379
Chi-Square	436.002	436.002
NFI	0.781	0.781

Source: Process Data Analysis (2024)

The model's fit was assessed using several indices. The Standardized Root Mean Square Residual (SRMR) measures the standardized difference between observed and predicted correlations, with values under 0.08 considered good. Both the saturated and estimated models have an SRMR of 0.074, indicating an acceptable fit. The Squared Euclidean Distance (d_ULS) and Geodesic Distance (d_G), which assess the distance between empirical and model-implied correlation matrices, are relatively low, suggesting a good model fit. The Chi-Square statistic, which tests the discrepancy between sample and model-implied covariance matrices, is 436.002; though this value is influenced by sample size, it should be considered with other fit indices. Lastly, the Normed Fit Index (NFI), which compares the model to a null model, has a value of 0.781, indicating an acceptable but not optimal fit, suggesting potential for model improvement.

Table 4. Coefficient Model

	R Square	Q2
Sustainable Economic Development	0.475	0.465

Source: Data Processing Results (2024)

R Square (R^2) measures the proportion of variance in the dependent variable explained by the independent variables in the model, reflecting the model's explanatory power. For Sustainable Economic Development, the R^2 value is 0.475, meaning that 47.5% of its variance is explained by the Sharia Partnership Programme, sustainability management, and green technology use. This moderate R^2 value suggests the model offers a reasonable explanation of the factors influencing sustainable economic development in Banten. The Predictive Relevance (Q^2), calculated using the blindfolding procedure, measures the model's ability to predict omitted data points. The Q^2 value for Sustainable Economic Development is 0.465, indicating good predictive relevance and the model's capacity to accurately forecast outcomes for this construct based on the independent variables.

4.5 Path Coefficients and Significance Testing

The hypothesis testing in this study evaluates the strength and significance of the relationships between the independent variables (Green Technology Use, Sharia Partnership Program Implementation, and Sustainability Management) and the dependent variable (Sustainable Economic Development). The assessment uses the path coefficients (Original Sample), Sample Means, Standard Deviations, T Statistics, and P Values to determine the significance of each hypothesis.

Table 5. Hypothesis Testing

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics	P Values
Green Technology Use -> Sustainable Economic Development	4.098	4.108	0.054	3.805	0.000

Sharia Partnership Program Implementation -> Sustainable Economic Development	3.022	3.014	0.057	2.389	0.002
Sustainability Management -> Sustainable Economic Development	0.594	0.593	0.060	9.850	0.000

Source: Process Data Analysis (2024)

The analysis of path coefficients reveals significant relationships between various constructs and Sustainable Economic Development. For Green Technology Use, the path coefficient is 4.098, with a T Statistic of 3.805 and a P Value of 0.000, indicating a highly significant positive impact on Sustainable Economic Development, confirming that increased green technology use strongly promotes economic sustainability. The Sharia Partnership Program Implementation has a path coefficient of 3.022, a T Statistic of 2.389, and a P Value of 0.002, demonstrating a significant positive effect on Sustainable Economic Development and highlighting the value of ethical financial practices. Lastly, Sustainability Management shows a path coefficient of 0.594, with a T Statistic of 9.850 and a P Value of 0.000, reflecting a very strong positive relationship, underscoring the critical role of sustainability management in achieving sustainable economic development.

Discussion

This study investigates the effects of Green Technology Use, Sharia Partnership Program Implementation, and Sustainability Management on Sustainable Economic Development in Banten. The results from the structural equation modeling indicate significant positive relationships among all three independent variables and the dependent variable, offering valuable insights into how these factors contribute to the region's sustainable growth.

Green Technology Use and Sustainable Economic Development

The analysis reveals a strong and significant positive relationship between Green Technology Use and Sustainable Economic Development, as indicated by a path coefficient of 4.098. This finding underscores the crucial role of technological innovation in reducing environmental impact while simultaneously enhancing economic performance. Green technology not only improves efficiency and reduces costs but also supports regulatory compliance and enhances corporate reputation. The results align with previous research, suggesting that green technology adoption is vital for achieving sustainability goals and ensuring long-term economic viability.

The results from various studies underscore the critical role of green technology adoption in achieving sustainability goals and ensuring long-term economic viability. Green technology, encompassing eco-friendly practices, renewable energy sources, and advanced materials, significantly contributes to environmental conservation, resource efficiency, and social well-being by mitigating climate change and preserving biodiversity [19]. In the context of higher education, universities are progressively integrating sustainable practices into their operational strategies, fostering an environmentally conscious campus culture and reducing ecological impact, although there remains substantial potential for policy improvement and community involvement [33]. Green technology innovations, such as renewable energy technologies, clean water and waste treatment systems, and sustainable agricultural practices, have been shown to effectively reduce greenhouse gas emissions, improve air and water quality, and conserve natural resources, while also creating new jobs and driving economic growth in sectors like manufacturing, energy, and environmental services [34]. Furthermore, the preferences of equity investors for green

technology shares highlight the importance of personal attitude, subjective norms, and perceived behavioral control in shaping investment intentions, thereby fostering a resilient and environmentally responsible investment landscape [35]. Additionally, the influence of financial technology on corporate environmental performance, mediated by green finance and green innovation, emphasizes the need for incorporating novel technologies and environmentally-friendly initiatives into organizational strategies to enhance corporate environmental performance [36]. Collectively, these findings affirm that the adoption of green technology is not only essential for meeting sustainability targets but also for ensuring economic resilience and growth, necessitating collaborative efforts from governments, industries, and individuals to overcome challenges such as high costs, inadequate infrastructure, and low public awareness [19], [33]–[36].

Sharia Partnership Program Implementation and Sustainable Economic Development

The Sharia Partnership Program Implementation shows a significant positive influence on Sustainable Economic Development, with a path coefficient of 3.022. This relationship highlights the potential of ethical and socially responsible financial practices in driving economic growth that aligns with sustainability principles. Sharia-compliant finance, which emphasizes risk-sharing, ethical investing, and social responsibility, can lead to more equitable wealth distribution and social welfare improvements. The results support existing literature, suggesting that integrating Islamic finance principles into development strategies can enhance social cohesion and ensure inclusive growth.

The integration of Islamic finance principles into development strategies indeed enhances social cohesion and ensures inclusive growth, as supported by existing literature. Islamic finance, grounded in principles such as the prohibition of riba (interest), maisir (speculation), and gharar (uncertainty), along with a commitment to social justice and general welfare, provides a robust foundation for promoting a sustainable and inclusive economy [7]. The alignment of Islamic sustainable finance (ISF) with the Sustainable Development Goals (SDGs) further underscores its potential in advancing environmental, social, and economic dimensions of sustainability. Key ISF mechanisms, such as Islamic Green Sukuk, Socially Responsible Investment Funds, Islamic Microfinance, and Islamic Impact Investing, play a crucial role in promoting green entrepreneurship, supporting SMEs, and offering alternative financing, thereby fostering financial stability, justice, and growth [37]. Additionally, the governance of Islamic social finances (ISF) is pivotal in enhancing performance and efficiency, which in turn optimizes contributions to societal and economic contexts, fostering informed decision-making and effective governance aligned with Islamic economic principles [38]. The convergence of Islamic economics and sustainable development highlights the impact of principles like equity, social justice, and ethical conduct on sustainable development outcomes, promoting inclusive economic growth, social equality, and environmental sustainability [39]. Furthermore, Islamic financial literacy significantly influences financial technology, digital finance, and social capital, which collectively enhance Islamic financial inclusion. This integrated approach, combining education, technological innovation, and social capital development, is essential for robust Islamic financial inclusion, thereby promoting sustainable economic growth [40]. Collectively, these insights affirm that integrating Islamic finance principles into development strategies not only enhances social cohesion but also ensures inclusive and sustainable growth.

Sustainability Management and Sustainable Economic Development

The strongest positive relationship is observed between Sustainability Management and Sustainable Economic Development, with a path coefficient of 0.594. This significant finding underscores the importance of integrating sustainability practices into organizational strategies to achieve economic, social, and environmental objectives. Sustainability management practices lead to operational efficiencies, improved stakeholder relationships, and a reduced environmental footprint. These practices not only contribute to immediate financial performance but also ensure long-term viability by aligning business operations with global sustainability standards and consumer expectations.

Sustainability management practices are pivotal in driving operational efficiencies, enhancing stakeholder relationships, and minimizing environmental impact, thereby contributing to both immediate financial performance and long-term viability. By integrating sustainable practices, businesses can optimize their supply chains, improve energy efficiency, and reduce waste, which collectively enhance operational efficiency and reduce costs [17]. These practices also foster stronger relationships with stakeholders, including consumers, investors, and regulatory bodies, by demonstrating a commitment to environmental stewardship and social responsibility [14]. For instance, green marketing strategies not only differentiate companies in the marketplace but also attract sustainability-conscious consumers, thereby boosting profitability and competitive advantage [15]. Moreover, the adoption of renewable energy sources, advanced technologies to cut greenhouse gas emissions, and improved water management practices are crucial in reducing the environmental footprint of operations [41]. Despite challenges such as regulatory complexities and resource constraints, businesses can overcome these obstacles through innovation, stakeholder collaboration, and strategic partnerships with sustainable suppliers and NGOs [42]. The alignment of business operations with global sustainability standards and evolving consumer expectations ensures not only compliance but also enhances brand reputation and customer loyalty, which are essential for long-term success [17]. Case studies have shown that companies successfully implementing sustainable practices not only mitigate environmental impacts but also achieve economic feasibility and social acceptance, balancing environmental stewardship with economic viability [41]. Thus, sustainability management practices are integral to creating a resilient business ecosystem where profitability and environmental responsibility are interconnected pillars of success [17].

Theoretical and Practical Implications

The results contribute to the theoretical understanding of sustainable economic development by empirically validating the significance of green technology, ethical finance, and sustainability management. By demonstrating the positive impacts of these factors, the study provides a comprehensive framework for understanding how different strategies can interact to promote sustainable growth.

Practically, the findings offer actionable insights for policymakers, business leaders, and practitioners in Banten and similar regions. Policymakers can leverage these insights to design regulations and incentives that promote the adoption of green technologies and ethical finance. Business leaders can integrate sustainability management practices into their operations to enhance competitiveness and ensure compliance with evolving environmental standards.

Limitations and Future Research

While the study provides valuable insights, it has several limitations. The cross-sectional design limits the ability to draw causal inferences, and the focus on a single region may limit the generalizability of the findings. Future research could employ longitudinal designs to capture changes over

time and expand the geographic scope to include comparisons across different regions and contexts. Additionally, exploring other factors that may influence sustainable economic development, such as government policies, cultural influences, and consumer behavior, could provide a more comprehensive understanding of the dynamics involved.

5. CONCLUSION

The findings of this study emphasize the crucial roles of Green Technology Use, Sharia Partnership Program Implementation, and Sustainability Management in fostering sustainable economic development in Banten. Green technology is highlighted as a key driver for sustainability, advocating for ongoing investment in innovations that minimize environmental impacts and enhance efficiency. The Sharia Partnership Program Implementation demonstrates the benefits of incorporating ethical financial practices, promoting equitable growth and social welfare. Effective Sustainability Management is essential for achieving operational efficiencies and improved stakeholder relationships, thus ensuring long-term viability. These insights can guide policymakers in designing supportive regulations and incentives, and help business leaders integrate sustainability practices into their operations. Despite these contributions, the study's cross-sectional design and regional focus limit generalizability, suggesting the need for future research to explore different regions and additional factors affecting sustainable development

REFERENCES

[1] S. Chaturvedi, S. Thomas, W. S. Thomas, V. Tiwari, and S. Javeed, "The Economics of Sustainable Development: Challenges and Solutions," *Educ. Adm. Theory Pract.*, vol. 30, no. 5, pp. 9061–9067, 2024.

[2] A. Doloan, "Sustainable Economic Development: A Systematic Literature Review on Global Perspectives and Strategies," *Econ. Stud. Bank. J.*, vol. 1, no. 3, pp. 130–150, 2024.

[3] F. Ruhana, S. Suwartiningsih, E. Mulyandari, S. Handoyo, and U. A. Afrilia, "Innovative Strategies for Achieving Sustainable Development Goals Amidst Escalating Global Environmental and Social Challenges".

[4] F. Wang, W.-K. Wong, Z. Wang, G. Albasher, N. Alsultan, and A. Fatemah, "Emerging pathways to sustainable economic development: An interdisciplinary exploration of resource efficiency, technological innovation, and ecosystem resilience in resource-rich regions," *Resour. Policy*, vol. 85, p. 103747, 2023.

[5] Ю. Клюс and Д. Фоменко, "IMPROVING THE APPROACH TO ASSESSING THE ECONOMIC SUSTAINABILITY OF REGIONAL ENTERPRISES," *Mech. an Econ. Regul.*, no. 4 (102), pp. 66–70, 2023.

[6] M. R. Jinan, M. Syapiuddin, and U. Nasri, "Holistic Integration: Syariah Finance Principles in Islamic Education Management," *J. Ilm. Profesi Pendidik.*, vol. 9, no. 2, pp. 1343–1350, 2024.

[7] C. Alfiansyah and F. L. Nisa, "Analisis Tantangan dan Peluang Perbankan Syariah dalam Mewujudkan Pembangunan Ekonomi Berkelanjutan," *J. Ekon. BISNIS DAN Manaj.*, vol. 2, no. 3, pp. 199–210, 2024.

[8] H. Syamsuri, R. Muin, and M. W. Abdullah, "Implementation of Sharia Insurance in providing Sustainable Finansial Protection," *Tech. Sustain.*, vol. 6, pp. 25–37, 2024.

[9] I. F. A. Yanti, U. Ulfian, F. Febriani, D. O. Bayulpa, M. Safitra, and D. J. Tarigan, "Konsep Etika Bisnis Dan Prilaku Konsumen Dalam Perspektif Ekonomi Syariah," *J. Econ. Bus.*, vol. 2, no. 1, pp. 21–33, 2024.

[10] M. C. Mursid, F. A. Aziz, and D. Anjani, "The role of sharia economics in realizing sustainable green economic development," *J. Infrastructure, Policy Dev.*, vol. 8, no. 5, p. 5012, 2024.

[11] N. Fuadah, T. Nurdian, N. H. K. Fadhilah, M. Riany, N. A. Bahri, and N. Rusdiansyah, "Implementation of Operational Audits in an Effort to Improve the Efficiency and Effectiveness of the Marketing Function," in *International Conference on Economics, Management and Accounting (ICEMAC 2022)*, Atlantis Press, 2023, pp. 227–238.

[12] A. Salida and N. Rusdiansyah, "Exploring Social and Environmental Accounting Reporting Through Jurgen Habermas's Critical Theory," *West Sci. Interdiscip. Stud.*, vol. 1, no. 08, pp. 552–564, 2023.

[13] Z. S. Babaeva, "Strategic Management And Sustainable Economic Development," *Int. Trade Trade Policy*, vol. 10, no. 1, 2024.

[14] M. Kumar and S. Tomar, "SUSTAINABLE BUSINESS PRACTICES IN INTERNATIONAL MARKETS: STRATEGIES, CHALLENGES, AND IMPLICATIONS," 2024, pp. 167–177. doi: 10.58532/V3BHMA22P2CH4.

[15] L. A. de Oliveira Lima *et al.*, "Sustainable Management Practices: Green Marketing as A Source for Organizational Competitive Advantage," *Rev. Gestão Soc. e Ambient.*, vol. 18, no. 4, 2024.

[16] E. Terán-Yépez, G. M. Marín-Carrillo, M. del Pilar Casado-Belmonte, and M. de las Mercedes Capobianco-Uriarte, "Sustainable entrepreneurship: Review of its evolution and new trends," *J. Clean. Prod.*, vol. 252, p. 119742, 2020.

[17] D. S. Ramesh, "Sustainable Business Practices: Integrating Environmental Impact Management into Modern

Commerce Strategies," *Dec 2023 - Jan 2024*, 2023.
[18] V. Shanmugam, vi, R. Evangelin, and V. Dharmasivam, "Sustainability and Green Technology Innovation," *Remit. Rev.*, vol. 7, Dec. 2022, doi: 10.47059/rr.v7i2.2410.
[19] D. S. Goswami, "GREEN TECHNOLOGY FOR SUSTAINABLE ENERGY PROCUTION FROM AGRICULTURE SECTOR," 2024, pp. 183–195.
[20] M. Guo, J. Nowakowska-Grunt, V. Gorbanyov, and M. Egorova, "Green Technology and Sustainable Development: Assessment and Green Growth Frameworks," *Sustainability*, vol. 12, p. 6571, Aug. 2020, doi: 10.3390/su12166571.
[21] G. Deep, "Exploring the Role and Impact of Green Technology in Building a Sustainable Future," 2023.
[22] T. C. Phan, "Impact of green investments, green economic growth and renewable energy consumption on environmental, social, and governance practices to achieve the sustainable development goals: A sectoral analysis in the ASEAN economies," *Int. J. Eng. Bus. Manag.*, vol. 16, p. 18479790241231724, 2024.
[23] D. Syah and G. Rahmadani, "The Profit-Sharing System in Financing Islamic Banking," *Qubahan Acad. J.*, vol. 4, no. 1, pp. 300–309, 2024.
[24] M. J. Beddu *et al.*, "Mudharabah: Sustainable Sharia Investment Model," *AL-Muqayyad*, vol. 6, no. 2, pp. 126–139, 2023.
[25] A. Ariawan, L. Judijanto, M. Y. Bahtiar, F. Akbarina, and M. Syafri, "The role of sharia economics in supporting the realization of sustainable development goals and islamic development," *ProBisnis J. Manaj.*, vol. 15, no. 1, pp. 87–91, 2024.
[26] S. H. Fadhilah *et al.*, "Effect of Firm Size and Capital Intensity on Tax Avoidance with Corporate Social Responsibility as Moderating Variables," in *International Conference on Economics, Management and Accounting (ICEMAC 2022)*, Atlantis Press, 2023, pp. 77–89.
[27] R. A. Santoso and N. Rusdiansyah, "Analisis Bibliometrik Tren Kolaborasi Penelitian antar Peneliti terkait dengan Audit Eksternal suatu Bisnis serta Instansi Pemerintah di Indonesia (Tahun 2018-2023)," *J. Akt. Ris. Akunt. dan Keuang.*, vol. 6, no. 1, pp. 10–16, 2023.
[28] R. Lathabhavan, "Sustainable business practices and challenges in Asia: a systematic review," *Int. J. Organ. Anal.*, vol. 30, no. 3, pp. 778–794, 2022.
[29] E. Ö. Pir, "Sustainable Brand Management: A Forward-Looking Perspective in the Business World," *Dijitalleşme ve Pazarlama Araştırmaları*, p. 105, 2023.
[30] K. P. Sabirali and S. Mahalakshmi, "Corporate Sustainability Practices: A Systematic Literature Review and Bibliometric Analysis," *Vision*, p. 09722629231203125, 2023.
[31] R. Pitchai, S. Tiwari, C. Viji, A. Kistan, R. Puviarasi, and S. Gokul, "Green Technologies, Reducing Carbon Footprints, and Maximizing Energy Efficiency with Emerging Innovations: Green Computing," in *Convergence Strategies for Green Computing and Sustainable Development*, IGI Global, 2024, pp. 86–110.
[32] Z. A. Shaikh, "Towards sustainable development: A review of green technologies," *Trends Renew. Energy*, vol. 4, no. 1, pp. 1–14, 2017.
[33] A. Ateeq, M. A. Alaghbari, A. A.-A. Al-refaei, and A. Y. Ahmed, "Sustainable Solutions: The Impact of Green Technologies in University Operations," in *2024 ASU International Conference in Emerging Technologies for Sustainability and Intelligent Systems (ICETSIS)*, IEEE, 2024, pp. 225–229.
[34] Yusmaneli and Masri, "Bagaimana Inovasi Teknologi Hijau Menanggapi Tantangan dan Menentukan Dampaknya?," *J. Digit. Technol. Trend*, vol. 2, pp. 43–55, Jun. 2023, doi: 10.56347/jdtt.v2i1.150.
[35] M. Sharma, J. Deka, V. Sharma, P. Verma, P. Verma, and K. Tiwari, "An Analytical Framework for Assessing Equity Investor Preferences in Green Technology Shares," in *2023 4th International Conference on Computation, Automation and Knowledge Management (ICCAKM)*, IEEE, 2023, pp. 1–6.
[36] S. Tehseen, A. Hussain, and A. Riaz, "GREENING BOTTOM LINE & TECH-DRIVEN SUSTAINABILITY: FINANCIAL TECHNOLOGY JOURNEY CREATING BETTER ENVIRONMENT," *Gomal Univ. J. Res.*, vol. 39, no. 4, pp. 433–447, 2023.
[37] L. Raimi, I. A. Abdur-Rauf, and S. A. Ashafa, "Does Islamic Sustainable Finance Support Sustainable Development Goals to Avert Financial Risk in the Management of Islamic Finance Products? A Critical Literature Review," *J. Risk Financ. Manag.*, vol. 17, no. 6, p. 236, 2024.
[38] R. M. Napitupulu, R. Sukmana, and A. S. Rusydiana, "Governance of Islamic social finance: learnings from existing literature," *Int. J. Islam. Middle East. Financ. Manag.*, vol. 17, no. 3, pp. 552–571, 2024.
[39] Z. S. Zauro, A. S. Civín, and O. Bouma, "Islamic Economics for Sustainable Development," *Ser. Ekon.*, vol. 1, no. 2, pp. 53–70, 2024.
[40] P. Marla, S. Musnadi, and M. S. Abd. Majid, "What Drive Islamic Financial Inclusion in Banda Aceh City?," *AL-MUZARA'AH*, vol. 12, pp. 87–106, Jun. 2024, doi: 10.29244/jam.12.1.87-106.
[41] A. E. Esiri, O. A. Babayeju, and I. O. Ekemezie, "Implementing sustainable practices in oil and gas operations to minimize environmental footprint," 2024.
[42] F. Tinonetsana and P. Musariwa, "Integration of sustainability marketing into business strategies: Challenges during adoption," *Int. J. Res. Bus. Soc. Sci.*, vol. 13, no. 2, pp. 23–30, 2024.