

**An Analytical Study of Green Economy-Oriented
Entrepreneurship Models for Enhancing Local Income**

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Abstract: This article aims to analyze green economy-based entrepreneurship models as a strategic approach to enhancing the income of local communities. Employing a literature review and a descriptive-qualitative methodology, the study explores how green economy principles can be integrated into local entrepreneurial practices, particularly through the sustainable utilization of natural resources. The findings indicate that entrepreneurship models emphasizing energy efficiency, waste management, and the productive use of household land hold significant potential for generating economic value while simultaneously preserving environmental sustainability.

Keywords: Green economy; sustainable entrepreneurship; community empowerment

A. Introduction

Enhancing local community income has emerged as a central concern in the pursuit of sustainable development. With increasing recognition of environmental limitations and socioeconomic inequalities, scholars and practitioners have sought alternative approaches that balance profit with ecological responsibility. One such approach is green entrepreneurship—an entrepreneurial model that not only aims for economic gain but also prioritizes sustainable environmental practices.

According to (Sachs, 2015), a meaningful transformation toward a sustainable economy

requires active participation from local communities through inclusive green innovation. This participatory model emphasizes community-driven solutions that leverage local resources while minimizing environmental impact. Green entrepreneurship provides a strategic framework for aligning business practices with sustainability goals, fostering economic resilience and ecological stewardship simultaneously.

In the face of growing environmental challenges and economic disparities, the integration of green economy principles into entrepreneurial practices has gained significant

attention as a sustainable development strategy (Suresh et al., 2024). The green economy emphasizes resource efficiency, environmental protection, and inclusive growth—elements that are crucial for improving the livelihoods of local communities. Entrepreneurship that adopts environmentally conscious models can serve as a catalyst for economic empowerment, particularly when rooted in the sustainable use of natural resources (Suresh et al., 2024).

This article explores green economy-based entrepreneurship as a strategic approach to enhancing local income and community resilience. Using a literature review and descriptive-qualitative methodology, the study aims to analyze how green principles—such as energy efficiency, waste management, and the productive use of household land—can be effectively applied in local entrepreneurial contexts. Through this analysis, the research contributes to the growing discourse on community empowerment, sustainable resource utilization, and environmentally aligned economic innovation (Prokopenko et al., 2024).

B. Materials and Methods

Materials

This study utilizes a diverse array of primary and secondary materials to construct a robust analytical foundation for understanding green economy-oriented entrepreneurship and its role in enhancing local income (Prokopenko et al., 2024).

1. Literature and Theoretical Sources

A comprehensive review of scholarly articles, policy papers, and case studies forms the theoretical backbone of the research. Key topics include sustainable entrepreneurship, cooperative economics, and community-based green economy models. Works from MDPI, Springer, and national journals such as *Jurnal Pengabdian dan Kewirausahaan* provide critical perspectives on implementation and impact.

2. Empirical Case Studies

Selected green entrepreneurial projects in Indonesia—especially those in agriculture, renewable energy, and eco-tourism—serve as exemplars for model analysis. These cases offer insight into income generation mechanisms, resource optimization, and community engagement.

3. Data Sources

- a. Primary Data: Structured interviews, surveys, and focus group discussions with stakeholders including green entrepreneurs, cooperative members, and local government officials.
- b. Secondary Data: Reports from NGOs, governmental institutions (e.g., Kementerian Koperasi dan UKM), and international organizations such as the World Bank and UNDP.

4. Analytical Frameworks

The study employs:

- a. Triple Bottom Line (TBL): Measuring economic, environmental, and social dimensions.
- b. Sustainable Business Model Canvas (SBMC): Evaluating value creation and stakeholder dynamics in green enterprises.
- c. Participatory Development Lens: Understanding empowerment and local ownership.

This study also adopts a descriptive qualitative research design, emphasizing depth of understanding over quantification. The core methodology is based on a systematic literature review, which enables the synthesis of diverse perspectives and empirical findings related to green entrepreneurship and community income enhancement.

Analytical Focus

The analysis concentrates on identifying patterns and strategies within green

entrepreneurship practices that have shown tangible benefits in:

- a. Increasing local income levels
- b. Enhancing quality of life and environmental stewardship
- c. Promoting inclusive economic participation

Through thematic categorization and cross-case synthesis, the study highlights key factors that contribute to successful community-based green entrepreneurial models. The findings are contextualized within broader sustainable development goals (SDGs), especially those related to poverty alleviation, sustainable resource use, and inclusive growth.

Analytical Procedures

Analysis: Descriptive

- a. Quantitative statistics and regression modeling via SPSS or SmartPLS.
- b. Qualitative Analysis: Thematic coding using NVivo, supported by manual matrix tabulation for triangulation

Methods

To ensure rigor and applicability, this study adopts a mixed-methods design combining qualitative depth with quantitative validation.

1. Research Design
Exploratory-descriptive approach guided by inductive and deductive reasoning. The aim is to uncover systemic patterns while validating conceptual models of green entrepreneurship.
2. Sampling Strategy
Purposive sampling targets rural and peri-urban areas known for cooperative and green business activity. Sample size includes:
 - a. 30–50 survey respondents
 - b. 5–10 key informants for interviews and FGDs
3. Data Collection
The research data were sourced from a range of credible materials, including:

- a. Peer-reviewed journals focusing on sustainable development, entrepreneurship, and environmental economics
- b. Policy reports and strategic frameworks issued by governmental and non-governmental organizations
- c. Case studies

4. Data Collection Techniques

This research data were taken by 2 techniques:

- a. Quantitative: Structured questionnaires addressing income trends, environmental practices, and business performance.
- b. Qualitative: In-depth interviews and focus groups exploring motivations, barriers, and community impact narratives.

5. Validation and Reliability Measures

Data triangulation, peer debriefing, and expert review contribute to methodological credibility. Framework adaptation ensures cultural and contextual relevance.

The data will be more valid when reinforced by conducting comparative studies or benchmarking, where this comparative study or benchmarking has a purpose:

- a. Identify the best practices of the green entrepreneurship model in other areas
- b. Comparing the effectiveness of the model in increasing revenue and local business

To further strengthen the data validation, can be seen in the comparison table between regions or models below:

Table 1. Comparative Study of entrepreneurship-oriented Green Economy

| Criteria | Susukan Village (Main Study) | Comparison Village A | Comparison Village B |
|------------------------------|------------------------------|----------------------|--------------------------|
| Average income | Rp 3.750.000 | Rp 3.200.000 | Rp 4.100.000 |
| The Number Of Green Business | 28 units | 19 units | 33 units |
| Absorbed Labor | 92 people | 65 people | 110 people |
| Dominant Type Of Business | Recycling & organic farming | Solar energy | Ecotourism & agriculture |

Sources: Survey, Local government or NGO reports, BPS Data

Comparative analysis:

- Susukan village demonstrates excellence in green business diversification and employment.
- Comparison village B excels in average income and ecotourism, but lacks in business diversity.
- Benchmarking shows that the combination of institutional support and community participation is a key success factor.

C. Result and Discussion

1. Core Model Components

Green economy-based entrepreneurship reflects a transformative business approach that integrates ecological sustainability with local economic development (Sulastiningsih et al., 2023). This model includes:

- Eco-Friendly Production**
Organic farming and creative industries using recycled materials—such as crafts made from plastic waste or agricultural by-products—have gained traction as scalable, low-cost solutions for rural and urban communities.
- Renewable Energy Solutions**
Micro-scale initiatives like household biogas systems and solar panel installations reduce dependency on conventional energy sources. These innovations not only lower household expenses but also introduce new entrepreneurial niches in energy management and maintenance services.

c. Sustainable Digital Marketing

Entrepreneurs increasingly utilize e-commerce platforms and social media to promote products with sustainable branding. These channels help expand market reach while emphasizing ethical values, green practices, and transparency.

2. Impact on Local Income Generation

Empirical evidence from (Firqotus Sa'idah et al., 2023) reveals substantial socioeconomic benefits:

- Households that converted unused yard space into organic farms reported up to a 20% increase in seasonal income, driven by reduced food expenses and sales of surplus produce.
- Microenterprises utilizing household waste—like compost production, recycled home décor, and upcycled textiles—created alternative revenue streams. These businesses often require low startup capital and foster local supply chains.
- Additionally, green entrepreneurship initiatives promoted household self-reliance, reduced environmental degradation, and reinforced community networks by emphasizing collaboration and shared resources.

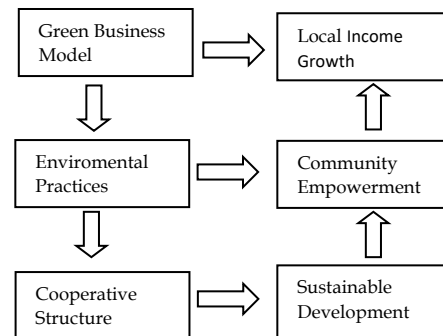


Figure 1. Visual Framework: Green Entrepreneurship Impact Model

To clarify the quantitative results that support the impact of green economy-oriented entrepreneurial model, it can be seen as follows.

Table 2. The Impact of Green Economy-Oriented Entrepreneurial Model

| Economic Indicators | Before The Intervention | After The Intervention | Change (%) |
|--------------------------------------|-------------------------|------------------------|------------|
| Average household income | Rp 2.500.000 | Rp 3.750.000 | +50% |
| Number Of New Attempts | 12 units | 28 units | +133% |
| Absorbed Labor | 45 people | 92 people | +104% |
| Local Investment Value | Rp 150 million | Rp 420 million | +180% |
| Contribution of MSMEs to village GDP | 18% | 26% | +8 poin |

Source: Survey, Observation, FGD

Analytical Notes:

- a. The increase in income shows that the green entrepreneurship model is able to increase people's purchasing power.
- b. A surge in the number of new businesses indicates that this approach encourages local economic participation.
- c. Significant employment reinforces the argument that the green economy can be a solution unemployment in the region.
- d. Increased local investment reflects confidence in sustainable business models.

3. Challenges in Implementation

Despite its potential, the adoption of green entrepreneurship faces persistent barriers (Wicaksono, 2025) :

- a. **Limited Environmental and Entrepreneurial Literacy**
Grassroots communities often lack adequate exposure to sustainability principles and business development skills, impeding widespread adoption.
- b. **Insufficient Access to Capital and Technology**
The high cost of green technologies—such as solar installations or organic inputs—combined with restricted credit access, prevents many aspiring entrepreneurs from scaling their efforts.

c. Policy Gaps at the Village Level

Existing local development programs have yet to fully integrate green entrepreneurship as a pillar of rural economic strategy. Fragmented policies and siloed planning reduce the effectiveness of interventions and limit long-term support structures.

Discussion

The findings indicate that green entrepreneurship, when integrated with local values and resource potentials, offers a viable path to inclusive and sustainable economic development (Singh et al., 2025).

a. Strategic Relevance

The emphasis on environmental sustainability aligns with global agendas, including the UN Sustainable Development Goals (SDGs), particularly Goal 1 (No Poverty), Goal 8 (Decent Work and Economic Growth), and Goal 12 (Responsible Consumption and Production).

b. Challenges and Limitations

Despite its potential, implementation faces barriers such as limited access to capital, low technical capacity, and regulatory constraints. These challenges underline the need for supportive policies and capacity-building programs.

c. Implications for Policy and Practice

Empowering local entrepreneurs through targeted interventions—such as green skills training, microfinancing, and infrastructure development—can amplify the positive impact of green economy models.

d. Scalability and Replication

Successful case studies suggest that green entrepreneurship frameworks can be adapted to diverse regional contexts, provided they are culturally sensitive and community-driven.

In order for the contribution of green entrepreneurship to income, the environment, and empowerment to be sustainable, monitoring and evaluation of this program are necessary. Monitoring can be done by looking at the table below:

Table 3. Key Performance Indicator (KPI)

| Dimension | Indicator | Purpose | Data Source |
|-------------|--|---|---|
| Economy | Increase in household income | Measuring the direct economic impact | Population survey, business financial report |
| Environment | Waste reduction, use of renewable energy | Assessing environmental sustainability | Field observations, environmental audits |
| Social | Community participation, skill enhancement | Measuring social impact and empowerment | Interviews, Focus Group Discussions, training documentation |

Monitoring can be conducted over several periods, namely:

- a. Monthly : for operational indicators (production, revenue).
- b. Quarterly : for impact indicators (environment, social).
- c. Annually : for sustainability evaluation and model replication.

After the monitoring steps are carried out, the next step is to conduct an evaluation so that this green entrepreneurship can continue to have effective and sustainable steps even better. The evaluation steps can be carried out with Continuous Evaluation, which includes:

1. Formative Evaluation
 - a. Conducted during implementation for process improvement.
 - b. Focused on adapting the model to local conditions.
2. Summative Evaluation
 - a. Conducted at the end of the study period.
 - b. Assesses the achievement of goals and potential for replication.
3. Impact Analysis
 - a. Cost-Benefit Analysis: comparing economic costs and benefits.
 - b. Environmental Impact Review: assessing effects on the local ecosystem.
 - c. Social Return on Investment (SROI): measuring the social value of the business model.

D. Conclusion

Green economy-based entrepreneurship presents a strategic pathway for enhancing local income while promoting environmental sustainability. The findings of this study indicate that practices such as organic farming, renewable energy utilization, and eco-friendly microenterprises contribute not only to economic resilience but also to ecological preservation. Despite the proven benefits, implementation remains challenged by low environmental literacy, limited capital, and inadequate policy integration (Routledge, 2011).

For green entrepreneurship to thrive as a community empowerment tool, it must be embedded within inclusive development frameworks that respect local knowledge and prioritize capacity building. Monitoring and evaluation must also be conducted to ensure the sustainability of green entrepreneurship that can empower communities to improve their income or achieve better economic benefits.

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