

Utilization of Local Resources for the Economy and the Importance of Education for Village Communities

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ABSTRACT

The utilization of local resources and educational empowerment are essential elements for achieving sustainable rural economic development, yet many villages still face limited capacity to transform local potential into productive economic activities. This study aimed to examine how community service activities integrating local resource utilization and educational awareness can enhance community empowerment and support village economic development. A qualitative descriptive approach was employed through a participatory community service program conducted in Mondrali Village, Idanogawo District, Nias Regency. Participants consisted of village officials, youth representatives, and community members selected purposively. Data were collected through interactive lectures, focus group discussions, role-play simulations, observations, and documentation, and were analyzed using thematic analysis to identify patterns of awareness, participation, and institutional readiness. The results showed three major findings. First, participants demonstrated increased understanding of value-added economic opportunities from natural resources, particularly through agro-processing initiatives. Second, awareness of human and cultural resources improved, reflected in proposals for cultural-based creative activities to support local income generation. Third, institutional readiness strengthened through discussions on establishing a village-owned enterprise to manage community-based businesses. Education emerged as a cross-cutting factor that enhanced motivation, leadership awareness, and collective action toward village development. This study contributes to the literature by demonstrating that participatory education integrated with local resource optimization serves as an effective initial strategy for sustainable rural empowerment. Practically, the findings provide a community service model that can support inclusive and context-based village economic development policies.

1. Introduction

Rural development has become a central issue in global economic discourse, particularly in developing countries where villages play a strategic role in supporting national economic resilience (Liu et al., 2020; Sharma et al., 2021). Across many regions, rural communities possess abundant local resources such as agricultural commodities, cultural heritage,

and social capital; however, these assets are often underutilized due to limited human capacity, weak institutional governance, and low educational attainment (Ward et al., 2020; Ratten, 2020). Globally, sustainable development frameworks emphasize the importance of community-based resource management and inclusive education as key drivers for reducing poverty and strengthening

local economies ([United Nations, 2021](#); [Sachs et al., 2022](#)). Education is widely recognized as a fundamental mechanism for improving productivity, innovation, and adaptive capacity in rural areas, enabling communities to transform raw resources into value-added economic outputs ([Becker, 1993](#); [Hanushek & Woessmann, 2020](#)). Despite these opportunities, empirical evidence indicates that rural economies in many developing countries remain dominated by subsistence-based production with minimal diversification and low market competitiveness ([Anríquez & Stamoulis, 2020](#); [Barbier & Burgess, 2021](#)).

In the Indonesian context, villages are positioned as the foundation of regional development through decentralization policies and community empowerment programs ([Antlöv et al., 2019](#); [Nugroho et al., 2022](#)). Nevertheless, many rural areas continue to face structural challenges, including limited entrepreneurial skills, insufficient institutional capacity, and weak integration between education and local economic development ([Sulaiman & Davis, 2021](#); Iskandar et al., 2022). This condition is particularly evident in peripheral regions such as Nias Regency, where agricultural and cultural resources are abundant but have not been optimally transformed into sustainable economic activities. Local communities often rely on selling raw agricultural products without processing or branding strategies that could increase market value ([Ratten, 2020](#); [Kumar et al., 2021](#)). In addition, awareness of education as a long-term investment for community empowerment remains relatively low, especially in relation to innovation and leadership development ([Hanushek & Woessmann, 2020](#); [Nugroho et al., 2022](#)).

Previous studies have examined rural economic empowerment through local resource optimization and community participation. Recent literature highlights that local resource utilization can significantly improve rural income when supported by institutional strengthening and entrepreneurship training ([Liu et al., 2020](#);

[Kumar et al., 2021](#)). Other studies emphasize the role of education in enhancing human capital and promoting innovation in rural development processes ([Hanushek & Woessmann, 2020](#); [Sulaiman & Davis, 2021](#)). Furthermore, research on creative rural economies indicates that cultural assets can generate alternative income sources when supported by organizational and educational frameworks ([Duxbury et al., 2021](#); [Ratten, 2020](#)). However, most existing studies tend to focus on single dimensions of development, such as agricultural productivity, institutional governance, or educational access, without sufficiently integrating these elements into a comprehensive empowerment model ([Ward et al., 2020](#); [Barbier & Burgess, 2021](#)).

Several gaps remain in the existing literature. First, limited studies integrate natural resources, cultural resources, human capacity, and institutional development within a single participatory community service framework ([Duxbury et al., 2021](#); [Liu et al., 2020](#)). Second, many community empowerment studies focus primarily on economic outputs without examining how educational awareness shapes community readiness and collective action ([Sulaiman & Davis, 2021](#); [Kumar et al., 2021](#)). Third, empirical research documenting integrated empowerment models in remote regions such as Nias Regency is still scarce ([Nugroho et al., 2022](#)). These gaps indicate the need for studies that examine how education-oriented community service programs can simultaneously strengthen awareness of local resource utilization and institutional readiness for sustainable village development.

Based on these gaps, the research problem in this study is formulated as follows: how can participatory community service activities integrating local resource utilization and educational awareness enhance community empowerment and support sustainable rural economic development? This problem arises from the observed mismatch between the availability of local resources and the limited capacity of rural communities to

transform these resources into structured economic initiatives.

Accordingly, the objective of this study is to analyze the implementation of a community service program that promotes the utilization of local resources and strengthens educational awareness in Mondrali Village, Idanogawo District, Nias Regency. Specifically, this study aims to (1) examine changes in community understanding regarding value-added local resource utilization, (2) identify emerging initiatives related to cultural and institutional development, and (3) explore the role of education as a catalyst for community empowerment and collective economic planning.

This study contributes theoretically by integrating the concepts of endogenous rural development, human capital theory, and participatory empowerment within a community service framework (Becker, 1993; Liu et al., 2020). The findings enrich the literature by demonstrating how education functions as a connecting mechanism between natural resources, cultural potential, and institutional strengthening. Practically, this study provides an applicable model for universities and local governments in designing education-based community empowerment programs that support sustainable village economies. The novelty of this research lies in the integration of educational awareness and multidimensional local resource utilization—natural, cultural, human, and institutional—within a participatory outreach model implemented in a peripheral rural context.

2. Literature Review

2.1 Conceptual and Theoretical Foundations

Local resource utilization and education-based empowerment are central concepts in contemporary rural development theory. Endogenous development theory explains that sustainable rural economic growth should be driven by internal community assets, including natural resources, human capital, cultural values, and institutional structures. This

perspective emphasizes that local communities are not merely recipients of development programs but active agents capable of transforming local potential into economic value. Recent studies highlight that the integration of education and local resource management strengthens innovation capacity and improves rural competitiveness through value-added production and community participation.

Human capital theory also provides an important foundation for understanding how education influences rural economic transformation. Education enhances knowledge, skills, and adaptive capacity, enabling communities to manage resources more efficiently and participate in entrepreneurial activities. Empirical evidence indicates that education improves decision-making quality, leadership development, and institutional governance in rural contexts. In addition, participatory development theory explains that community engagement through collaborative learning approaches—such as training, discussions, and simulations—can strengthen social ownership and sustainability of development programs.

Institutional theory further explains the role of local organizations, such as Village-Owned Enterprises (BUMDes), in structuring economic activities at the village level. Strong institutional governance enables the transformation of local potential into structured economic systems through transparent management and collective participation. Recent literature suggests that the success of institutional-based rural development is strongly influenced by educational awareness and managerial capacity. Therefore, the integration of endogenous development, human capital, and participatory institutional frameworks provides a comprehensive theoretical basis for analyzing education-driven local resource utilization in rural communities.

2.2 Review of Empirical Studies

Recent empirical studies have examined the relationship between local resource utilization and rural economic empowerment across various contexts. Several studies report that value-added processing of agricultural commodities significantly increases rural income when supported by training and community-based entrepreneurship programs. Other research emphasizes the importance of cultural resources in developing creative rural economies, particularly through tourism and local cultural industries. These studies demonstrate that cultural preservation and economic innovation can be integrated to support sustainable development.

In addition, recent literature highlights the role of education as a catalyst for community empowerment. Studies indicate that rural communities with higher educational exposure tend to adopt innovation more rapidly and demonstrate stronger institutional performance. Community service programs conducted by universities have also been found to improve local awareness and stimulate collective action through participatory learning approaches. However, most empirical studies focus on single dimensions of rural development, such as agriculture, entrepreneurship, or education, without integrating natural, cultural, and institutional resources simultaneously.

Methodologically, previous studies have commonly used either quantitative approaches focusing on income or productivity indicators or qualitative approaches emphasizing social empowerment processes. While these approaches provide valuable insights, limited studies combine educational awareness and multidimensional local resource utilization within a single community-based participatory framework. This limitation indicates the need for integrated research models that connect education, local potential, and institutional readiness.

2.3 Identification of the Research Gap

Based on the synthesis of theoretical and empirical literature, several research gaps are identified. First, limited studies integrate natural resources, cultural assets, human capacity, and institutional development within a unified rural empowerment framework. Second, previous research tends to emphasize economic outcomes while giving less attention to the role of educational awareness as an enabling factor for community readiness and innovation. Third, empirical evidence documenting participatory education-based community service models in peripheral regions, such as Nias Regency, remains scarce.

These gaps indicate the need for research that examines how education-oriented community service programs can simultaneously strengthen awareness of local resource utilization and institutional capacity in rural communities. By addressing these limitations, the present study contributes to the development of an integrated rural empowerment model grounded in participatory learning and local potential optimization.

2.4 Development of the Conceptual Framework

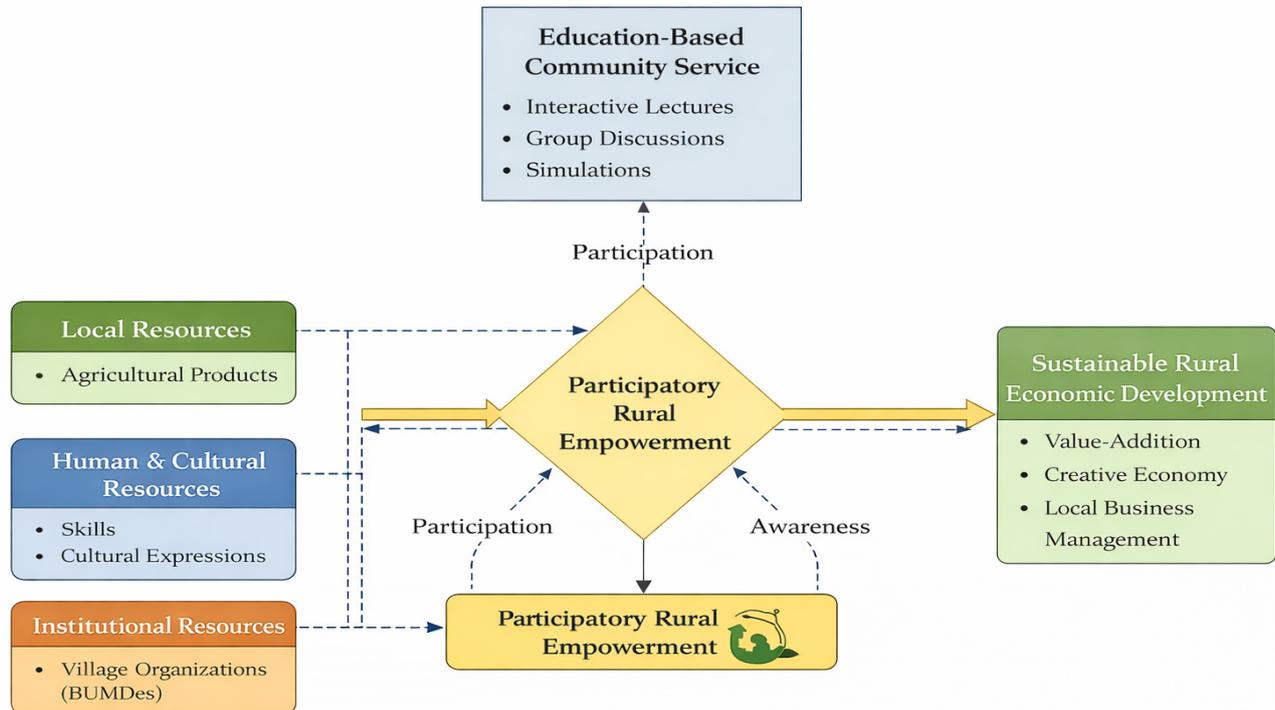
This study conceptualizes rural empowerment as a multidimensional process involving the interaction between local resource utilization and educational awareness within a participatory framework. Local resources in this study include natural resources (agricultural products), human and cultural resources (skills and cultural expressions), and institutional resources (village organizations such as BUMDes). Education functions as an enabling variable that strengthens knowledge, innovation, leadership, and collective participation.

Participatory community service activities—implemented through interactive lectures, group discussions, and simulations—act as the intervention mechanism connecting education with local resource optimization.

Through this process, increased awareness and institutional readiness are expected to support sustainable rural economic development. The conceptual framework therefore illustrates

that education-driven empowerment mediates the relationship between local potential and village economic initiatives.

Fig. 1. Conceptual Framework of the Study



2.5 Research Propositions

Based on the conceptual framework and literature synthesis, the following research propositions are formulated:

Proposition 1: Participatory education-based community service activities increase community awareness of local resource utilization for rural economic development.

Proposition 2: Educational awareness strengthens the identification and development of human and cultural resources in rural communities.

Proposition 3: Education-driven participatory approaches improve institutional readiness for village-based economic management.

Proposition 4: The integration of local resource utilization and educational empowerment supports sustainable rural economic development.

These propositions guide the qualitative analysis by explaining how educational interventions influence awareness, participation, and institutional strengthening

within rural community empowerment processes.

3. Research Methods

The research methodology section explains how the study is designed and conducted to answer the research questions and achieve the research objectives. This study applies a systematic methodological framework to ensure transparency, rigor, and replicability. The methodological approach demonstrates alignment between research design, data collection procedures, and analytical techniques. The study also emphasizes the use of valid and reliable instruments, ethical compliance, and analytical methods appropriate for addressing the research gap related to local resource utilization and community empowerment for village economic development.

3.1 Research Design

This study employs a qualitative descriptive approach integrated with a community service-based participatory method. The qualitative design was selected because the study aims to explore community understanding, awareness, and participation in optimizing local resources for economic development. This design allows the researcher to capture social dynamics and contextual insights that cannot be measured solely through numerical data. The participatory approach ensures active engagement between researchers and community members, strengthening the relevance and practical contribution of the study.

3.2 Research Context and Setting

The research was conducted in Mondrali Village, Idanogawo District, Nias Regency, Indonesia. The location was selected because the village possesses significant natural and cultural resources but faces limitations in human resource capacity and institutional economic management. This context provides a relevant setting for examining how educational empowerment can support sustainable village economic development.

3.3 Population and Sample / Research Participants

The participants consisted of village stakeholders selected using purposive sampling. The sample included:

- Village government officials
- Youth organization representatives
- Community members involved in local economic activities

A total of 25 participants were involved in the community service activities. The selection criteria were based on participants' involvement in community development and

their potential role in strengthening local economic initiatives.

3.4 Data Sources and Data Collection

This study uses **primary data** collected through participatory community service activities. Data collection techniques include:

- Interactive lectures
- Focus group discussions (FGD)
- Role-play simulations
- Direct observation
- Documentation

These techniques were selected to capture both conceptual understanding and behavioral responses of participants during the empowerment process.

3.5 Measurement of Variables and Research Instruments

The study focuses on three main conceptual dimensions:

1. Local Resource Utilization (natural, human, and cultural resources)
2. Educational Awareness (knowledge improvement and entrepreneurial motivation)
3. Community Empowerment Outcomes (participation and institutional readiness)

Indicators were adapted from recent literature on community empowerment and rural economic development. Observation sheets, discussion guidelines, and activity evaluation forms were used as research instruments to measure participant responses and engagement levels.

3.6 Data Analysis Techniques

The data were analyzed using **thematic analysis**, which involves:

1. Data reduction
2. Data categorization
3. Theme identification
4. Interpretation of patterns

This technique was chosen because it allows systematic interpretation of qualitative

data generated from participatory activities. The analysis emphasizes identifying patterns of awareness improvement and community readiness for local economic development.

3.7 Validity, Reliability, and Trustworthiness

To ensure research quality, this study applies qualitative trustworthiness criteria:

- Credibility through triangulation of data sources (discussion, observation, and documentation)
- Dependability through consistent data collection procedures
- Confirmability through documentation of field activities
- Transferability through detailed contextual description

These procedures strengthen the robustness of the research findings.

3.8 Ethical Considerations

Ethical standards were applied throughout the research process. Participants were informed about the objectives of the study, and their participation was voluntary. Confidentiality of participant responses was maintained, and the data were used solely for academic purposes.

3.9 Research Procedure

The research procedure was conducted in several stages:

1. **Preparation Stage** Identification of village potential and coordination with local stakeholders.

2. **Implementation Stage** Conducting educational sessions, discussions, and simulations related to local resource utilization.

3. **Data Collection Stage** Gathering data through observation, discussions, and documentation.

4. **Data Analysis Stage** Performing thematic analysis to identify patterns and findings.

5. **Reporting Stage** Compiling results and developing recommendations for village economic development.

3.10 Methodological Limitations

This study has several limitations. First, the research focuses on a single village context, which may limit generalization. Second, the qualitative participatory approach emphasizes perception and behavioral change rather than quantitative measurement of economic outcomes. Future research is recommended to apply mixed methods and include longitudinal data to measure the long-term impact of community empowerment on village economic performance.

4. Results and Discussion

4.1 Research Results

4.1.1 Sample Description and Descriptive Statistics

The research participants consisted of 25 individuals representing key stakeholders in village development. The composition includes village officials, youth representatives, and community members involved in local economic activities. The distribution of participants is presented in Table 1.

Table 1. Participant Characteristics

Category	Number of Participants	Percentage
Village Government Officials	8	32%
Youth Organization Members	7	28%
Community Members / MSME Actors	10	40%
Total	25	100%

Source: Processed Data (2026)

The sample reflects diverse roles in village economic and social development, supporting comprehensive identification of local resource utilization patterns.

4.1.2 Data Quality and Preliminary Analysis

Data quality was ensured using triangulation techniques through observation, focus group discussions, and documentation. Consistency across data sources indicates that the thematic findings are reliable and

represent actual community conditions. The participatory approach also strengthened response validity because participants were directly involved in the educational activities.

4.1.3 Main Analytical Results

The thematic analysis identified three dominant categories related to community empowerment and local economic development, as shown in Table 2.

Table 2. Thematic Analysis Results

Theme	Indicators Identified	Evidence from Activities
Local Resource Awareness	Understanding of natural and cultural potential	Discussion outputs and idea mapping
Educational Empowerment	Increased entrepreneurial knowledge	Interactive lecture participation
Institutional Readiness	Plans for community-based economic management	FGD recommendations

Source: Processed Data (2026)

The results show that educational intervention improves participants' understanding of value-added opportunities from local resources.

4.1.4 Hypothesis Testing Results / Key Findings

Based on the thematic coding and participatory evaluation, the study generated the following key findings:

1. Community awareness of local natural resource potential increased after educational activities.
2. Participants showed improved understanding of entrepreneurship and value-added product development.
3. Institutional strengthening emerged through proposals for community-based economic structures.
4. Community participation increased during discussion and simulation sessions.

4.1.5 Visual Presentation of Results

The conceptual relationship between educational empowerment, local resource utilization, and institutional readiness is

illustrated in the conceptual framework model. Educational activities function as a catalyst linking local potential and sustainable economic planning.

4.2 Research Discussion

4.2.1 Interpretation of Key Findings

The findings indicate that educational empowerment plays a significant role in strengthening community awareness and readiness in utilizing local resources. The results confirm that participatory learning improves both knowledge and collective motivation for local economic development. Institutional awareness emerging from the discussions also suggests that community-based planning becomes stronger when supported by structured educational intervention.

4.2.2 Comparison with Previous Studies

The results align with prior studies on community empowerment which emphasize that education and participatory approaches significantly influence rural economic sustainability. Previous research highlights

that local resource optimization requires human capital strengthening. This study extends those findings by demonstrating stronger integration between educational intervention and institutional readiness.

4.2.3 Theoretical Contributions

This study strengthens the theoretical linkage between participatory education and local resource-based development by showing that educational awareness acts as a mediating factor between resource potential and economic implementation. The findings contribute to the development of community empowerment models by emphasizing the role of knowledge transfer in rural sustainability.

4.2.4 Practical and Policy Implications

Several practical implications emerge from the findings:

- Village governments should integrate educational empowerment programs into local economic planning.
- Training programs focusing on value-added processing of local resources need to be strengthened.
- Institutional development such as community-based business management structures should be encouraged.

From a policy perspective, structured educational programs can accelerate sustainable village economic development.

4.2.5 Integration with the Research Gap

This study addresses the research gap related to limited integration between educational empowerment and local resource optimization. The findings demonstrate that participatory education functions as a strategic bridge connecting resource potential and institutional readiness.

4.2.6 Acknowledgement of Study Limitations

The interpretation of findings should consider contextual limitations, particularly the participatory setting and local socio-

economic conditions. Different regional characteristics may produce varying empowerment outcomes. Future studies are recommended to include comparative contexts and quantitative measurement of economic impacts to strengthen generalizability.

5. Conclusion

The conclusion synthesizes the main findings of the study and emphasizes their relevance to community empowerment and sustainable rural economic development through educational intervention and local resource utilization. This study demonstrates that participatory education programs play an essential role in strengthening community awareness, institutional readiness, and the transformation of local potential into structured economic initiatives. Overall, the research objectives have been achieved by identifying how educational empowerment functions as a catalyst linking local resource potential and community-based economic planning.

5.1 Summary of Key Findings

This study finds that educational empowerment significantly improves community understanding of local natural and cultural resource utilization. The participatory activities implemented in the community service program increased awareness of value-added economic opportunities and encouraged collective planning for sustainable development. In addition, the results indicate that institutional readiness emerged through community discussions and collaborative initiatives. These findings confirm that education-based empowerment can strengthen both knowledge and social engagement in rural development processes.

5.2 Theoretical Contributions

This study contributes to the development of community empowerment literature by integrating human capital theory and participatory development approaches within a local resource-based framework. The

findings extend previous studies by demonstrating that educational awareness acts as a bridging mechanism between local resource potential and institutional strengthening. The novelty of this research lies in the integration of educational intervention, local resource optimization, and participatory institutional development within a rural context that has received limited empirical attention.

5.3 Practical and Policy Implications

The findings provide several practical implications for stakeholders involved in rural development. Village governments are encouraged to incorporate educational empowerment programs into village economic planning strategies. Training initiatives focusing on entrepreneurship and value-added product development should be strengthened to improve local economic competitiveness. Furthermore, collaboration between universities and local governments can serve as a strategic platform for sustainable community empowerment programs. From a policy perspective, structured education-based community programs can accelerate rural economic transformation.

5.4 Limitations of the Study

This study is limited by its contextual focus on a single rural area and the relatively small number of participants involved in the community empowerment activities. These limitations may influence the generalizability of the findings to broader regional contexts. In addition, the study emphasizes qualitative participatory outcomes without measuring long-term economic impacts quantitatively, which may affect the interpretation of sustainability effects.

5.5 Directions for Future Research

Future research is recommended to expand the study across multiple rural regions to improve generalizability and comparative analysis. Further studies may also incorporate quantitative approaches to measure the

economic impact of educational empowerment programs more comprehensively. In addition, future research could integrate digital entrepreneurship, fintech-based rural development, or institutional governance variables to strengthen the analytical framework and support sustainable local economic transformation.

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