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Local Wisdom Based Coastal Community Empowerment in the Seribu Islands Administrative Regency

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Abstract

This study addresses the lack of an operational framework that systematically integrates local wisdom, empirical evidence, and governance mechanisms in coastal community empowerment. While previous studies have examined these elements separately, limited attention has been paid to their interaction within an integrated and context-sensitive model.

This study aims to analyze the factors contributing to the ineffectiveness of empowerment programs and to develop a contextual empowerment model in Seribu Regency, DKI Jakarta. A qualitative phenomenological approach was used, involving 26 purposively selected informants, supported by observation and document analysis.

The findings indicate that ineffective empowerment is driven by top-down policy design, weak institutional coordination, limited infrastructure, and dependency-oriented program implementation. At the same time, local wisdom such as cooperation, deliberation, and ecological knowledge emerge as important supporting factors when integrated into the empowerment process.

This study proposes an integrative and adaptive empowerment model based on three pillars: local wisdom, evidence-based policy, and participatory governance, operationalized through a cyclical learning mechanism. This study provides a contextual and operational framework that strengthens the linkages between cultural values, empirical data, and policy practices in coastal development.

KEYWORDS

community empowerment; local wisdom; coastal communities; thousand islands; participatory governance.

Introduction

This subsection examines poverty dynamics in the Seribu Islands as an empirical context for understanding the challenges of local wisdom-based empowerment. Rather than providing a general definition, the analysis focuses on how poverty indicators relate to field findings. Despite extensive literature on community empowerment and local wisdom, the central problem remains insufficiently specified in coastal policy practice: the lack of integration between context-sensitive local knowledge and evidence-based policy design. In the case of the Seribu Islands, this gap is particularly critical due to its unique administrative position within a metropolitan governance system, which often applies uniform policy frameworks. Torre et al. (2019) highlights the high level of economic vulnerability among traditional fishing households in Southeast Asia, particularly due to resource degradation and structural marginalization. However, given differences in national and regional contexts, this study relies primarily on Indonesia-specific data to understand the dynamics of coastal poverty. In Indonesia, as the largest archipelagic country, 17.74 million of its 161 million coastal inhabitants live below the poverty line (BPS, 2024), indicating a significant gap between marine resource potential

and community welfare.

The Administrative Regency of the Seribu Islands, as part of the Special Capital Region of Jakarta Province, serves as a tangible example of this phenomenon of inequality. Data from the Central Statistics Agency of DKI Jakarta Province (2020–2024) show that the Human Development Index (HDI) of the Seribu Islands in 2024 was 76.69, far below the DKI Jakarta average (84.15). More alarming is that the poverty rate in this island region has consistently been the highest and has remained stagnant at 13.03% (2024), approximately three times the provincial average (4.30%). As shown in [Table 1](#), this stagnation, while mainland areas show recovery trends, reflects a persistent disparity in development outcomes. While this pattern suggests limitations in existing policy approaches, further analysis particularly from interview data and program implementation evidence is required to understand the extent to which uniform policy design contributes to this condition.

As shown in [Table 2](#), the root of the problem lies in the empowerment approach, which remains predominantly top-down and insufficiently responsive to local contexts. Previous evaluations of programs such as PNPM Mandiri Wisata and PEMP indicate significant implementation challenges, particularly in adapting to island-specific conditions, including geographic isolation, livelihood patterns, and socio-cultural characteristics. These findings suggest that uniform policy approaches are less effective in archipelagic regions. [Marin-Garcia and Bonavia \(2021\)](#) argue that policies implemented without active community participation tend to produce ineffective and unsustainable outcomes. In addition, [Nakamura \(2022\)](#) reports that 73% of coastal communities in Southeast Asia have experienced disruption of local wisdom due to insensitive processes of globalization and modernization.

In the context of the Seribu Islands, the rigid enforcement of Law No. 5 of 1990 on the Conservation of Natural Resources illustrates a policy paradox: while intended to protect ecosystems, such regulations may inadvertently restrict the socio-economic space of local communities when their knowledge and practices are not incorporated into resource management.

The solution to this problem lies in reorienting the empowerment model from a uniform to a contextual approach, with local wisdom as the foundation. Local wisdom is a system of collective knowledge, values, and practices that grows from a long process of community adaptation to its environment. Its integration into empowerment programs has proven significant, as demonstrated by [Chen et al. \(2025\)](#) in Taiwan, where Community-Based Sea Farming based on local wisdom increased fishermen's income by up to 45%. Empowerment itself, according to [Mardikanto et al \(2010\)](#), is a trilogy process: creating an enabling climate, strengthening potential, and protecting until independence is achieved. It is the synergy between empowerment and local wisdom that can create sustainable solutions.

There is an interesting contradiction in previous research. On one hand, [Smith et al. \(2023\)](#) show a positive correlation between participatory empowerment and the strengthening of local wisdom. On the other hand, [Gupta & Sharma \(2023\)](#) found that top-down empowerment programs negatively affected the preservation of local wisdom. Despite extensive studies on participatory empowerment and local wisdom integration, there remains a critical gap in the development of an operational model that systematically integrates local wisdom, empirical evidence, and governance mechanisms within a unified framework. Previous studies tend to examine these elements in isolation, without offering a structured mechanism for their interaction in policy and practice.

This study addresses this gap by proposing an integrative empowerment model that explicitly links local wisdom as a

foundational value system, empirical data as a decision-making basis, and participatory governance as an operational mechanism. Thus, this research does not merely confirm previous findings but advances a contextual and operational framework tailored to the socio-ecological characteristics of archipelagic regions such as the Seribu Islands. Previous research on the Seribu Islands has focused more on participation in specific programs than on formulating a comprehensive integrative model.

Based on the background and identification of the gap above, this study aims to: 1) Analyze the factors causing the ineffectiveness of implementing coastal community empowerment based on local wisdom in the Administrative Regency of the Seribu Islands; and 2) Formulate a contextual and evidence-based model of coastal community empowerment based on local wisdom in that region. Thus, this research is expected not only to contribute theoretically to the treasury of government and development science but also to serve as a practical guide for formulating more targeted policies.

Local wisdom refers to a system of knowledge, values, and traditional practices that evolve through a long process of community adaptation to its environment ([Hilda, 2016](#); [Rummar, 2022](#)). In the context of coastal communities, this wisdom encompasses a deep understanding of seasonal cycles, fish migration patterns, sustainable fishing techniques, and accompanying spiritual and ethical values ([Hasriyanti et al., 2021](#)). As seen in coastal communities across the region, practices such as *nyadran* among the Javanese or seasonal fishing bans are tangible evidence of sustainable resource ([Dushkova & Ivlieva, 2024](#)) management systems. ([Asikin, 2021](#); [Syaparuddin, 2018](#)).

[Njatrijani \(2018\)](#) identifies six dimensions of local wisdom, including: contextual local knowledge, local values as ethical principles, practical local skills, sustainable resource management capabilities, collective decision-making mechanisms, and group solidarity. This concept is significant because it functions as “social capital” ([Bakker et al., 2019](#)) and a “community treasure” ([Mungmachon, 2012](#)), capable of building community resilience, especially in facing challenges such as climate change and global economic pressures ([Carmen et al., 2022](#); [Roque et al., 2021](#)).

Community empowerment is a process of enhancing the capacity and self-reliance of communities to manage their resources and determine their own future ([Dushkova & Ivlieva, 2024](#); [Mardikanto et al., 2010](#)). [Libereto et al \(2011\)](#) emphasizes that the essence of empowerment is providing “capacity” (energy), not merely “power,” so that communities can act independently. This process involves a trilogy: (1) creating an enabling environment for potential to develop, (2) strengthening existing potential, and (3) protecting until self-reliance is ([Mardikanto et al., 2010](#)). This approach aligns with [Chambers \(2014\)](#) participatory development paradigm, which is people-centered and sustainable.

In the context of this study, empowerment serves as an operational framework for transforming the potential of local wisdom into collective action that enhances welfare, as demonstrated in research by [Iswari \(2019\)](#) in Dusun Pangkung Dedari and [Makagingge et al. \(2017\)](#) in the Sangihe Islands, albeit with varying degrees of success.

The relationship between empowerment and local wisdom is symbiotic. Empowerment as a process requires a foundation of local values and knowledge to remain relevant and sustainable, while local wisdom requires an empowerment framework to be actualized in contemporary contexts ([dos Santos et al., 2024](#); [S. Hidayat, 2021](#)). [Chen et al. \(2025\)](#) in Taiwan show that integrating local wisdom into Community-Based Sea Farming increased fishermen's income by up to 45% within three years.

However, [Gupta & Sharma \(2023\)](#) caution that

empowerment can potentially weaken local wisdom when applied uniformly without regard for sociocultural contexts. Therefore, an integrative model is needed, one that not only utilizes local wisdom as an object but also involves its holders as active subjects throughout the entire program cycle, from planning and implementation to evaluation (Abd Kadir et al., 2023; Marin-Garcia & Bonavia, 2021). This model emphasizes an evidence-based policy approach that combines empirical data with traditional knowledge.

Community welfare is the ultimate goal of empowerment based on local wisdom (Kurniawan et al., 2023; Kusuma et al., 2024). Todaro and Smith (2020) define development that leads to welfare through three core objectives: increasing the availability of basic needs, improving living standards (income, education, health), and expanding individual economic and social choices. At the local level, BKKBN measures family welfare through indicators such as the ability to meet basic needs for food, clothing, shelter, health, and education.

Barbier (2020) distinguishes between natural, structural, and cultural forms of poverty. The poverty of coastal communities in the Seribu Islands reflects a combination of all three. Data from BPS DKI Jakarta (2024) indicate that improved welfare is not only reflected in a decrease in poverty rates but also in an increase in the Human Development Index (HDI), which measures health, education, and purchasing power. Thus, the success of empowerment based on local wisdom must be translatable into measurable improvements in these welfare indicators.

Developing a contextual empowerment model requires an approach that adapts to the region's specific characteristics. McGinnis & Ostrom (2014), in her Social-Ecological Systems Framework, emphasizes the importance of integrating ecological and social systems in sustainable resource management. The model proposed in this study is dynamic (McGarvey), combines qualitative and quantitative approaches, and is designed to be participatory.

Hidayat & Dariyanto (2023) highlight factors such as communication, resources, disposition, and bureaucratic structure as determinants of success. This is relevant to the findings of Gessese (2020), who concluded that the effectiveness of poverty alleviation programs highly depends

on effective social communication systems and the integrity of implementers. Therefore, the model for the Seribu Islands must be able to bridge constructive dialogue between the government (in accordance with Law No. 23 of 2014 on Regional Government), the holders of local wisdom, and empirical data, thereby creating adaptive, inclusive, and sustainable policies (Bachrudin et al., 2018; Sugito et al., 2019).

Despite the growing body of literature on community empowerment and local wisdom, existing studies reveal several important limitations. First, most studies emphasize participatory approaches without systematically integrating empirical data into decision-making processes. Second, local wisdom is frequently treated solely as a contextual variable rather than as a foundational element in policy design. Third, existing models are rarely developed within complex governance settings, such as special administrative regions with distinct socio-ecological characteristics.

Addressing these limitations, this study offers a threefold contribution. Empirically, it provides in-depth qualitative evidence from the archipelagic context of the Seribu Islands, which remains underexplored in the literature. Theoretically, it integrates local wisdom as an epistemological foundation with evidence-based policy and participatory governance within a unified framework. Contextually, it develops an adaptive and operational empowerment model tailored to island regions characterized by geographic isolation and multi-level governance complexity.

Therefore, this study fills an empirical gap (limited case-specific analysis in archipelagic governance), a theoretical gap (lack of integration between local wisdom and evidence-based policy), and a contextual gap (absence of tailored models to island regions). The novelty of this research lies in developing an integrative, contextual, and evidence-based empowerment model that systematically links local wisdom, empirical data, and participatory governance, specifically designed for the socio-ecological and administrative complexity of archipelagic regions such as the Seribu Islands.

Table 1. Human Development Index (HDI) of DKI Jakarta Province 2019–2024

No	Regency/City	Human Development Index					
		2019	2020	2021	2022	2023	2024
1.	Seribu Islands	71.40	71.63	72.11	72.79	75.91	76.69
2.	South Jakarta	84.75	84.72	84.90	85.21	86.71	87.57
3.	East Jakarta	82.69	82.66	82.97	83.45	84.26	84.76
4.	Central Jakarta	81.24	81.39	81.56	82.11	83.29	83.75
5.	West Jakarta	81.21	81.38	81.76	82.51	83.85	84.40
6.	North Jakarta	80.17	80.29	80.51	80.81	81.85	82.13
	DKI Jakarta	80.76	80.77	81.11	81.65	83.55	84.15

Source: Secondary Data, BPS DKI Jakarta, 2020-2024

Table 2. Percentage of Poor Population in DKI Jakarta Province by Regency/City, 2019-2024

Regency/City	Percentage of Poor Population					
	2019	2020	2021	2022	2023	2024
Seribu Islands	12,09	14,87	15,06	14,11	13,13	13,03
South Jakarta	2,73	3,34	3,56	3,52	3,10	3,03
East Jakarta	3,12	4,16	4,28	4,30	4,20	4,09
Central Jakarta	3,68	4,51	4,94	4,90	4,68	4,63
West Jakarta	3,52	4,25	4,31	4,22	4,09	3,94
North Jakarta	5,04	6,78	7,42	7,24	6,78	6,44
Jakarta	3,47	4,53	4,72	4,69	4,44	4,3

Source: Secondary Data, BPS DKI Province, 2025

Method

This research employed a qualitative phenomenological approach to deeply understand the lived experiences, perceptions, and meanings constructed by individuals within a specific social context, particularly regarding the role of local wisdom in empowering coastal communities in the Seribu Islands Regency, Special Capital Region of Jakarta Province. This approach allows for the exploration of complex social realities that are difficult to capture through quantitative measures but are rich in contextual meaning.

The fieldwork was conducted from January to March 2025 across several inhabited islands, including Pramuka Island, Tidung Island, and Harapan Island, representing administrative, tourism-based, and fisheries-based community characteristics. Ethical considerations were strictly applied in this study. All informants provided informed consent prior to participation, and confidentiality was ensured by anonymizing personal identities in the reporting of findings.

The research subjects consisted of 26 informants selected through purposive and snowball sampling techniques based on their relevance and depth of knowledge. Informants were chosen using three main criteria: (1) direct involvement in empowerment programs, (2) understanding of local socio-economic conditions, and (3) willingness to provide detailed and reliable information.

The distribution of informants included policymakers (4 individuals, including the Regent and DPRD members), government officials (8 individuals), community leaders (6 individuals), fishermen and local business actors (5 individuals), and representatives from NGOs or other stakeholders (3 individuals). Each interview lasted approximately 45–90 minutes, allowing for in-depth exploration of experiences and perspectives.

Data saturation was achieved when no new themes emerged from three consecutive interviews, indicating that the information obtained was quite comprehensive. This process ensured the reliability and depth of the qualitative findings.

The primary instrument in this study was the researcher herself, who acted as the key instrument. The researcher used a semi-structured interview guide to gather in-depth, focused information. In addition, direct field observations were conducted to capture empirical phenomena related to the implementation of the empowerment program. Supporting documentation, such as local regulations, official reports, articles, news, and other written documents, was also used as secondary data to complement and confirm information from the interviews and observations.

The data collection process was conducted through three main techniques: semi-structured interviews, observation, and documentation study. Interviews were conducted face-to-face with informants to elicit narratives of their experiences and perspectives. Observations were conducted at the research location to witness activities and interactions within the empowerment context directly. Meanwhile, written documents were collected and analysed to compare and corroborate the primary data. Data collection was iterative, with data from one method used to deepen or test data from another.

Data reliability and validity are maintained through the application of triangulation across sources, methods, and theories. Source triangulation involves comparing information from multiple informants and documents. Triangulation is a method that combines findings from interviews, observations, and documentation. Theoretical triangulation in this study involved comparing findings using three main lenses: participatory development theory (Chambers, 2014), empowerment theory (Mardikanto et al., 2010), and social-ecological systems theory (Ostrom, 2014). For example,

findings on community participation were cross-checked between interview data and participatory theory, ensuring consistency between empirical evidence and conceptual interpretation. This approach minimises subjectivity and increases the validity of research findings.

Data analysis is conducted interactively following the Miles and Huberman model, which includes three main stages: data reduction, data presentation, and conclusion drawing. Data reduction involves selecting, simplifying, and categorising raw data into more focused themes. Data presentation is organised in narrative, tabular, or matrix form to facilitate researchers' identification of patterns and relationships between concepts. Conclusions are then drawn gradually, with continued verification through triangulation. This analysis process is cyclical and reflective, enabling researchers to continuously deepen their understanding of the phenomena being studied until a comprehensive and accountable picture is obtained.

Result and Discussion

The following section is divided into two analytical layers: (1) empirical findings derived from field data, and (2) interpretative discussion linking these findings to relevant theoretical frameworks.

Poverty

In this study, poverty is not treated merely as a general concept but as a lived reality experienced by coastal communities in the Seribu Islands. Interview findings indicate that poverty is closely associated with limited access to basic services, high transportation costs, and unstable income patterns among fishing households. These conditions reflect structural constraints rather than individual limitations, particularly those related to geographic isolation, limited infrastructure, and restricted economic opportunities. Thus, poverty in this context is better understood as a multidimensional phenomenon shaped by both environmental and institutional factors, which directly influences the effectiveness of community empowerment programs.

Data on the poverty line and the number of poor people can be used to determine the level of welfare of certain segments of society, including the welfare of fishing families. Furthermore, the level of community welfare can be determined from data on the Poverty Depth Index, Poverty Severity Index, and the Human Development Index.

Based on the data presented in Table 3, the analysis of the Poverty Depth Index (P1) and Poverty Severity Index (P2) in the Seribu Islands Regency from 2019 to 2024 shows significant fluctuations, although overall the index has shown a downward trend in recent years. In 2019, the Poverty Depth Index was recorded at 1.95, reflecting the level of difficulty experienced by the poor in meeting their basic needs. This figure indicates that the average expenditure of the poor reflects the average gap between the expenditure of poor populations and the poverty line, indicating how far, on average, the poverty falls below the poverty threshold.

However, in 2020, the index increased to 2.10, and in

Table 3. Poverty Depth Index and Poverty Severity Index Seribu Islands Regency, 2019–2024

Year	Poverty Depth Index	Poverty Severity Index
2019	1.95	0.46
2020	2.10	0.42
2021	2.61	0.63
2022	1.75	0.37
2023	1.52	0.33
2024	1.00	0.13

Source: Secondary Data, BPS.go.id. 2019-2024

2021, it reached its highest point of 2.61. This increase can be attributed to increasing economic pressures caused by various factors, including the impact of the COVID-19 pandemic, which began to be felt that year. Many residents lost their jobs or experienced reduced incomes, leading to an increase in the number of people falling into poverty. In this context, it's important to understand that these figures are not merely statistics, but also reflect the difficult daily realities of life for many families.

After 2021, the Poverty Depth Index showed a consistent decline, reaching 1.75 in 2022, 1.52 in 2023, and 1.00 in 2024. This trend suggests an improvement in the economic conditions of low-income households in the Seribu Islands. While this pattern may coincide with various government initiatives, such as social assistance and post-pandemic economic recovery programs, the present study does not specifically examine or verify the impact of individual interventions.

Therefore, any association between these programs and the observed improvement should be interpreted with caution. Instead, the findings indicate a broader trend of recovery, which may be influenced by multiple structural and contextual factors, including changes in economic activity, community strategies, and external policy environments.

Meanwhile, the Poverty Severity Index reflects a similar pattern. In 2019, the index stood at 0.46, indicating significant expenditure inequality among the poor. A decrease to 0.42 in 2020 indicated a slight improvement, but the figure rose again in 2021, reaching 0.63. This increase reflects the widening gap between the most vulnerable poor and those who are slightly better off in terms of expenditure. In this context, it can be seen that despite efforts to reduce poverty, significant challenges remain.

After 2021, the Poverty Severity Index gradually decreased, to 0.37 in 2022, 0.33 in 2023, and reached 0.13 in 2024. This decline indicates that expenditure inequality among the poor is narrowing, meaning that while differences in economic conditions remain, these differences are narrowing. This could be due to more focused and targeted programs that successfully reach the groups most in need.

Overall, the development of the Poverty Depth and Severity Index in the Seribu Islands Regency shows that poverty conditions worsened from 2020 to 2021, but experienced consistent improvement from 2022 to 2024. This indicates the effectiveness of economic recovery efforts and poverty reduction programs implemented in the region. However, it is important to note that despite these improvements, the challenges remain complex and require continued attention.

Comparing this data with Jakarta City reveals a significant gap between poverty conditions in the Seribu Islands Regency and that major urban area. In 2024, the Poverty Depth Index in Seribu Islands Regency was recorded at 1.00, while Jakarta City only recorded 0.57. This difference indicates that the average expenditure of poor residents in Seribu Islands Regency remains further from the poverty line than that of poor residents in Jakarta City. In this context, we can understand that while Jakarta has its own poverty challenges, the geographic and social conditions of the Thousand Islands add a different layer of complexity.

Similarly, on the Poverty Severity Index, the Thousand Islands Regency recorded a score of 0.13, while Jakarta City scored lower at 0.11. While the difference is relatively small, it nonetheless indicates that expenditure inequality among the poor in the Thousand Islands Regency remains greater than in Jakarta City. This suggests that despite progress, there are still highly vulnerable groups that require greater attention in poverty alleviation efforts.

Overall, this comparison confirms that the poverty problem in the Thousand Islands Regency remains more

complex than in Jakarta City. Factors such as the island's geographical location, limited economic access, and the unequal distribution of public services all contribute to the high depth and severity of poverty in the Thousand Islands. Therefore, more specific and area-based policy interventions are needed to address this issue. Inclusive policies, which involve local community participation in program planning and implementation, are crucial to ensuring that poverty alleviation efforts achieve maximum results. In conclusion, the analysis of the Poverty Depth and Severity Index in the Seribu Islands Regency from 2019 to 2024 reveals complex dynamics. While there has been significant improvement since 2021, existing challenges still require serious attention. Comparisons with Jakarta highlight existing gaps and emphasize the need for a more focused approach to poverty alleviation in areas with unique characteristics like the Seribu Islands. Therefore, poverty reduction efforts must be implemented sustainably and involve all relevant parties to achieve better outcomes for the community

Structural and Policy Approach

From a structural and policy perspective, this study found that the ineffectiveness of coastal community empowerment programs in the Seribu Islands Administrative Regency stems primarily from the dominance of top-down and non-contextual policy approaches. Field data and secondary documentation confirm that programs such as PNPM Mandiri Wisata and PEMP are often designed at the central or provincial levels without adequate adaptation to the unique sociocultural and geographical characteristics of island communities. One local official stated,

"Many programs are designed at the provincial level without considering transportation constraints between islands, making implementation difficult." (Interview, 2025).

The rigid enforcement of regulations, such as Law No. 5 of 1990 on the Conservation of Natural Resources, without incorporating adaptive mechanisms grounded in local wisdom, tends to marginalise communities. Regulations intended to protect ecosystems are often perceived as restricting access to livelihood resources, thereby reducing program effectiveness and fostering local resistance, as noted by Hamdi (2014) regarding the paradox of conservation regulation.

Furthermore, geographical isolation and limited infrastructure pose significant logistical challenges. The high cost of inter-island transportation hinders the distribution of goods, population mobility, and access to basic services such as healthcare, education, and markets. These structural barriers exacerbate development gaps and impede the transfer of appropriate knowledge and technology to coastal communities.

Community Socio-Economic Dynamics Approach

From the perspective of community socio-economic dynamics, the study reveals significant challenges related to human resource capacity and economic dependencies. The average years of schooling in the Seribu Islands was recorded at 9.03 years (BPS DKI Jakarta, 2024), representing district-level data. Interview findings suggest that this level of education affects community capacity in managing businesses, adopting technology, and participating in empowerment programs. This limitation affects digital literacy, business management skills, and the ability to adapt to technological innovations. While communities possess rich traditional knowledge of the sea, they often lack the skills to transform this knowledge into modern, market-scale economic enterprises.

Additionally, program implementation patterns that emphasise physical aid or cash transfers (*hand-outs*) rather than capacity building and self-reliance (*hand-ups*) have inadvertently fostered a culture of dependency. Many community business groups are only active during the aid

period and become inactive after the program ends. This phenomenon not only hinders business sustainability but also risks eroding core local values such as *gotong royong* (cooperation), self-reliance, and entrepreneurship, which should form the foundation of empowerment, as cautioned by Gupta & Sharma (2023).

Institutional and Governance Approach

From an institutional and governance standpoint, the research identifies weak coordination and limited access to inclusive capital as critical obstacles. Micro, Small, and Medium Enterprises (MSMEs) in coastal areas face significant difficulties in accessing formal bank financing due to a lack of collateral, incomplete legal status, and limited financial literacy in preparing credit proposals.

At the institutional level, coordination between provincial, district, subdistrict, and village governments remains suboptimal. There is frequent overlap among programs and a lack of synergy among the Fisheries Office, Tourism Office, Community Empowerment Office, and non-governmental organizations. For example, overlapping programs between the Fisheries Office and Tourism Office were identified in the development of marine tourism villages, where both agencies conducted similar training without coordination, leading to duplication and confusion among community members (Interview data, 2025).

A similar pattern was observed in digital marketing training initiatives, where different agencies delivered separate workshops with varying materials, schedules, and target groups. This resulted in inconsistent messaging and limited effectiveness, as participants received fragmented knowledge without a clear integration into their business practices.

These conditions not only lead to resource inefficiency but also reflect the absence of an integrated governance mechanism. This finding reinforces the importance of the participatory governance component in the proposed model, which emphasizes coordination, synchronization, and shared accountability among stakeholders to ensure coherent and effective empowerment interventions.

Transformative Potential through Local Wisdom Integration

Despite these challenges, field data reveal substantial transformative potential when local wisdom is integrated as the foundation of empowerment. Interviews with key informants, ranging from department heads and subdistrict heads to community leaders, consistently indicated that values such as cooperation, deliberation, and traditional knowledge of marine natural cycles are not merely cultural heritage but also vital social and ecological capital.

Revitalization of Local Values as Drivers of Cohesion and Self-Reliance

Interviews with the Head of Community Empowerment and the Head of the Fisheries Sub-Agency confirmed that empowerment programs aligned with the values of *gotong royong* and village deliberation are more readily accepted, foster a sense of ownership, and encourage active participation. Revitalised traditions such as *arisan laut* (marine rotating savings) and beach community work not only strengthen social solidarity but also serve as collective mechanisms for resource management and problem-solving. This demonstrates that local wisdom functions as an *enabling* mechanism, creating a conducive environment for community initiatives, in line with the first stage of Mardikanto (2010) empowerment trilogy.

Traditional Knowledge as a Basis for Sustainable Economic Innovation

Findings from the Fisheries Office indicate a significant

shift away from reliance on fishing toward marine cultivation, including floating net cages (KJA), seaweed farming, and marine product processing. This shift is inseparable from integrating local knowledge of seasons, currents, and environmentally friendly techniques with appropriate technology and modern training. Joint Business Groups (KUB) and fishing cooperatives formed based on a familial spirit have proven capable of scaling up businesses, increasing income, and maintaining ecosystem sustainability. This represents the manifestation of the *empowering* stage, in which community capacity is strengthened through their inherent potential and knowledge.

Strong Local Institutions as a Form of Protection (Protecting)

Observations and interviews show that groups such as Tourism Awareness Groups (Pokdarwis), Fish Cultivation Groups (Pokdakan), and coastal cooperatives have evolved into resilient local institutions. These institutions function not only as economic units but also as *protecting* entities that safeguard community interests from market pressures, ensure equitable benefit distribution, and serve as the frontline in community-based environmental conservation. The active involvement of women and youth in these institutions indicates social regeneration and inclusion, strengthening long-term sustainability.

Synthesis: Towards a Contextual, Evidence-Based Empowerment Model

The proposed model is derived inductively from field findings, particularly from recurring themes identified in interviews, such as the importance of local participation, institutional coordination, and contextual adaptation. It is also informed by existing theoretical frameworks, including participatory development and social-ecological systems. Based on the discussion above, the ineffectiveness of empowerment stems from approaches that disregard local context, while transformative potential lies in integrating local wisdom into the entire program cycle.

Therefore, this study formulates an integrative, contextual, and sustainable model for coastal community empowerment. Unlike existing empowerment frameworks such as participatory governance models or the Social-Ecological Systems (SES) framework proposed by Elinor Ostrom, the model proposed in this study offers a distinct conceptual contribution. First, this model explicitly positions local wisdom not only as a contextual variable but as the primary epistemological foundation guiding policy formulation. Second, it integrates evidence-based policy mechanisms into community empowerment, ensuring that local values are validated and strengthened through empirical data. Third, the model operationalizes these components through a cyclical and adaptive learning system, which is rarely articulated in prior empowerment studies. Therefore, this study contributes a new integrative mechanism that bridges the gap between cultural values, scientific evidence, and governance practice in a coherent and operational manner.

The model is operationalized through five interconnected components, forming a sustainable empowerment cycle (learning system): 1) Participatory Identification, Validation, and Documentation of Local Wisdom: Involves systematic inventory of traditional knowledge, social values, and cultural practices, actively engaging local elders, senior fishermen, and stakeholders as validators. 2) Local Potential-Based Community Capacity Strengthening: Training and mentoring designed to enhance not only technical skills but also the ability to manage and commercialize local wisdom. 3) Organizing and Strengthening Local Institutions: Supporting the formation and revitalization of community-based institutions as collective platforms for decision-making, business management, capital access, and advocacy. 4) Utilization of Appropriate and Contextual Technology: Introducing technological innovations based on appropriateness and adaptability, such as energy-

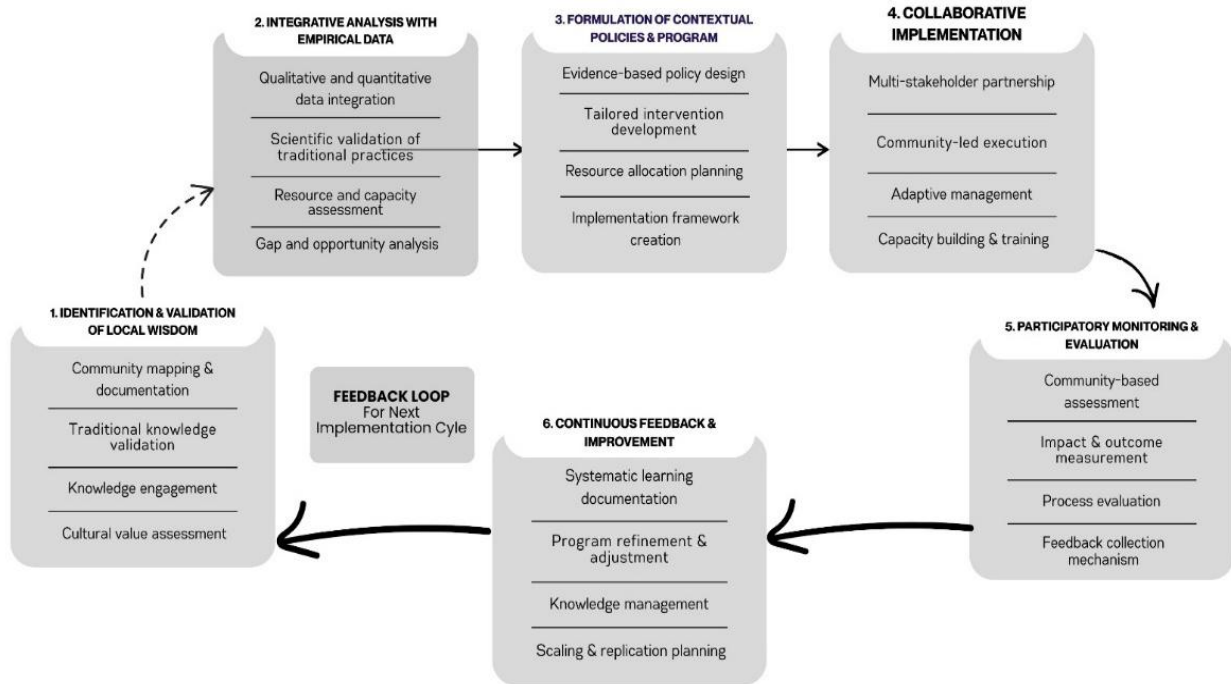


Figure 1. Dynamic Implementation Cycle of the Local Wisdom-Based Community Empowerment Model



Figure 2. Empowerment Model for Coastal Communities Based on Local Wisdom and Evidence-Based Policy in the Seribu Islands

efficient fish dryers, e-marketplaces for coastal products with local wisdom narratives, or water quality monitoring applications. 5) Inclusive Partnership and Network Building: Emphasizing strategic partnerships between government, communities, academics, the private sector, and NGOs to synergize resources, knowledge, and market access.

The implementation follows a dynamic cycle (Figure 1). The following diagram illustrates the proposed governance framework for LOCAL wisdom-based coastal community empowerment in the Seribu Islands (Figure 2). Empirical illustration from the field shows that the application of this cycle can be observed in the development

of floating net cage (KJA) aquaculture groups, where local knowledge of marine seasons was integrated with modern cultivation techniques. Through participatory planning and institutional support, these groups were able to increase productivity and stabilize income.

This case demonstrates how the model operates in practice: local wisdom informs decision-making, empirical data guides technical intervention, and participatory governance ensures sustainability.

The following diagram illustrates the proposed governance framework for LOCAL wisdom-based coastal community empowerment in the Seribu Islands. A conceptual model illustrating the interaction between the three main pillars (Local

Wisdom, Evidence-Based Policy, Participatory Governance) and the five operational components within a continuous learning cycle.

The proposed model is theoretically anchored in multi-level governance theory, which emphasizes the interaction between actors across different levels of authority, and institutional theory, which highlights the role of formal and informal rules in shaping collective action. By integrating these perspectives, the model explains how local wisdom (informal institutions) and formal policy structures can interact dynamically to produce adaptive and sustainable empowerment outcomes. Horizontally, it fosters collaboration among community institutions, government agencies, and external partners. Together, these elements create an institutionalized structure that transforms top-down assistance into accountable, transparent, and sustainable community-led development.

Conclusion

This study concludes that the ineffectiveness of coastal community empowerment in the Seribu Islands Administrative Regency is closely associated with non-contextual, top-down policy approaches, limited infrastructure, low human resource capacity, dependency patterns, and weak cross-institutional coordination.

These factors collectively hinder the sustainability and effectiveness of empowerment programs. At the same time, the findings highlight that local wisdom manifested in values such as cooperation (*gotong royong*), deliberation (*deliberation*), and traditional ecological knowledge functions as a critical enabling factor. When integrated into empowerment practices, these elements enhance community participation, strengthen ownership, and improve program relevance.

This study contributes by proposing a conceptual empowerment framework that integrates three main pillars: local wisdom, empirical evidence, and participatory governance. However, this framework is analytical and context-specific, and should be understood as a conceptual contribution rather than a fully validated model.

This study has several limitations. First, it employs a qualitative phenomenological approach focused on a single case study, which limits the generalizability of the findings. Second, the proposed empowerment framework is derived

inductively from field data and has not yet been tested through longitudinal or comparative research designs. Third, the study does not quantitatively measure the impact of specific empowerment programs on poverty reduction or welfare indicators.

Therefore, future research is recommended to test the proposed framework in different coastal or archipelagic contexts, as well as to combine qualitative insights with quantitative evaluation methods in order to strengthen its empirical validity.

Based on the findings, several policy recommendations can be proposed. First, local and provincial governments should adopt a more contextual and adaptive approach to coastal community empowerment by integrating local wisdom into policy design and implementation. This can be formalized through regional development planning documents such as RPJMD and RKPD.

Second, a multi-stakeholder empowerment forum should be established at the district level to strengthen coordination among government agencies, community institutions, academics, and the private sector. This forum can function as a platform for participatory planning, monitoring, and evaluation.

Third, empowerment programs should prioritize capacity building (*hand-up*) rather than short-term assistance (*hand-out*), with a focus on skills development, digital literacy, and sustainable livelihood innovation.

Fourth, improving access to inclusive financial services and strengthening infrastructure particularly transportation, digital connectivity, and basic services is essential to reduce structural barriers in island regions.

Finally, the strengthening of community based institutions, including cooperatives, tourism groups, and fisheries groups, should be prioritized to ensure long-term sustainability, inclusiveness, and local ownership of empowerment initiatives.

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