

Village Economies in the Era of Institutional Dualism: The Effectiveness of BUMDes and the Emerging Role of Merah Putih Cooperatives

Darwin Yopie Kefi¹, Melda Mariana Poeh², Ronald Enstein Renoat³, Patrisius Seran³, Yessi Susan Intan P. Benu³

¹Management Science, Universitas Airlangga, Indonesia

²Public Sector Accounting, Politeknik Negeri Kupang, Indonesia

³Business Management, Politeknik Negeri Kupang, Indonesia

*Corresponding Author: Melda Mariana Poeh

E-mail: poeh_melda@yahoo.co.id



Article Info

Article history:

Received 27 July 2026

Received in revised form 18

August 2026

Accepted 5 September 2026

Keywords:

Merah Putih Cooperatives

BUMDes

Collaborative Governance

MSMEs

East Nusa Tenggara

Abstract

This study analyzes how Merah Putih Cooperatives (KMP) contribute to demand orchestration and institutional synergy with Village-Owned Enterprises (BUMDes) in several villages in Kupang and South Central Timor (TTS) Regencies. Using a qualitative approach, in-depth interviews were conducted with KMP administrators, BUMDes representatives, village heads, Village Consultative Bodies (BPD), facilitators, MSMEs, and community members. Data were analyzed thematically using institutional arrangements, resource orchestration, and collaborative governance frameworks. The findings show that the KMP pre-order model reduces stock mismatch, improves inventory turnover, minimizes stock-outs, and stabilizes cash flow. Clear role differentiation, in which BUMDes manages assets, operations, and service counters while KMP manages members, markets, distribution, and partnerships, helps transform potential channel conflicts into value-chain collaboration and reduce transaction costs. Simple reporting mechanisms and quarterly KPI monitoring strengthen transparency, participation, operational discipline, and institutional legitimacy. Risks related to dead stock, product returns, and payment terms can be mitigated through supply service-level agreements (SLAs) and concise memoranda of understanding (MoUs). For MSMEs, KMP improves market absorption certainty, product quality and packaging, and distribution scheduling. Contextual differences also shape implementation: TTS prioritizes supply and price stability, whereas Kupang emphasizes market aggregation and quality standardization. Overall, KMP has strong potential to improve village-level economic coordination when role boundaries, performance indicators, transparency, and contractual risk-management mechanisms are consistently maintained.

Introduction

Rural economic development remains a critical component of inclusive and sustainable development, particularly in developing countries where rural communities continue to depend heavily on agriculture, small-scale trade, natural resources, and informal economic activities. Rural economies are not merely sources of household income but also institutional spaces in which community organizations, local enterprises, and economic actors mobilize resources and generate collective value. Nevertheless, rural economic development continues to face structural constraints, including limited market access, weak distribution networks, inadequate production capacity, financial exclusion, and fragmented institutional coordination (Nihayah et al., 2024; Ahmad et al., 2024; Msosa, 2022). These challenges are particularly relevant in East Nusa Tenggara (NTT), where geographical conditions and differences in local economic capacity shape the opportunities available to rural enterprises. The agricultural, forestry, and

fisheries sectors accounted for 28.88% of NTT's economic structure in the first quarter of 2024, illustrating the continued importance of resource-based economic activities in the province (BPS NTT, 2024).

The Indonesian government has introduced various institutional instruments to strengthen village economies, one of the most prominent being Village-Owned Enterprises (Badan Usaha Milik Desa or BUMDes). BUMDes are designed to function as village-level economic institutions that manage local resources, develop productive economic activities, and generate benefits for village communities (Srirejeki, 2018; Winarsi et al., 2018; Hadi et al., 2024; Pramesti, 2014). Their role extends beyond commercial activities because they can connect village assets, local entrepreneurship, and community development objectives (Kania, 2021; Ultari & Khoirunurrofik, 2024). Ideally, BUMDes can transform underutilized resources into productive economic activities while supporting local employment and village development. However, their performance varies considerably across regions. Existing studies identify managerial capacity, capitalization, governance arrangements, accountability, and market linkages as important determinants of BUMDes performance (Sofyani et al., 2021; Exploring BUMDES Accountability, 2024; Determinant Factors of BUM Desa Performance, 2025). This variation raises an important question regarding whether BUMDes alone are sufficiently equipped to respond to increasingly complex rural market dynamics (Pawitan et al., 2025; Said et al., 2026; Ibrahim et al., 2025).

The emergence of the Merah Putih Cooperative (Koperasi Merah Putih or KMP) introduces a new institutional dimension to rural economic development. Unlike BUMDes, which are embedded within village economic governance and manage village-owned resources, cooperatives are based on membership, collective ownership, and economic participation (Marzuki et al., 2026; Muhith & Widiyarta, 2025; Dewi et al., 2026). Cooperative organizations can strengthen the bargaining position of small producers through collective marketing, resource pooling, and shared access to economic opportunities (Msosa, 2022; Ahmad et al., 2024). The presence of KMP therefore creates the possibility of complementary relationships between two different institutional models. KMP can potentially aggregate demand, organize members, expand market access, coordinate distribution, and develop partnerships, while BUMDes can contribute physical assets, operational capacity, service facilities, and village-level business infrastructure (Nindiasari et al., 2025; Ibrahim et al., 2025). Such complementarity may provide a foundation for a more integrated rural economic ecosystem.

The relationship between BUMDes and KMP, however, should not automatically be assumed to be complementary. The coexistence of multiple economic institutions within the same village may generate overlapping functions, competition for markets, conflicts over distribution channels, and uncertainty regarding responsibility allocation (Yuan et al., 2024). Institutional fragmentation and unclear accountability can weaken organizational performance, particularly when governance arrangements fail to establish transparent responsibilities and effective coordination (Costumato, 2021; Sari & Prameswari, 2023). Conversely, clearly differentiated responsibilities and collaborative mechanisms can facilitate resource integration and improve institutional performance. Research on collaborative governance emphasizes the importance of trust, leadership, formalization, and power-sharing in sustaining interorganizational cooperation (Costumato, 2021; Scognamiglio, 2023). This issue is particularly important in rural economies because institutional effectiveness depends not only on individual organizational capacity but also on how organizations coordinate their activities.

From this perspective, institutional synergy becomes important for understanding the relationship between BUMDes and KMP. Institutional synergy occurs when organizations with different resources and capabilities coordinate their activities to generate outcomes that would

be difficult to achieve independently. In a rural economic context, such synergy may involve the integration of village assets, cooperative membership, market demand, distribution networks, production capacity, and information systems (Mohammadi et al., 2023; Zhang & Zhang, 2024). The effectiveness of these arrangements depends on clearly defined roles, transparent information, appropriate coordination mechanisms, and mutual trust among participating actors. Previous research on integrated BUMDes governance demonstrates that participatory management, accountability, and transparency are relevant to sustainable organizational performance (Sari et al., 2024; Sofyani et al., 2021). Therefore, the central issue is not simply whether BUMDes or KMP is individually effective, but how both institutions can be positioned within a complementary rural value-chain architecture.

The importance of this issue is particularly evident in the context of micro, small, and medium enterprises (MSMEs). Small and micro-enterprises in rural areas frequently experience uncertainty regarding market absorption, product standards, packaging, distribution schedules, and payment mechanisms. These constraints can result in unstable production, excess inventory, limited bargaining power, and dependence on intermediaries. Research on agricultural cooperatives indicates that collective organization can improve market access and strengthen producers' negotiating capacity, although transportation, information, and institutional barriers remain significant (Msosa, 2022; Ahmad et al., 2024). Similarly, transaction-cost perspectives emphasize the importance of reducing information asymmetry and coordination burdens in market exchanges (Owot et al., 2023). A cooperative-based demand aggregation mechanism may provide MSMEs with greater certainty regarding market demand, while BUMDes can provide local operational infrastructure and distribution points. Nevertheless, empirical evidence regarding how these mechanisms operate through the interaction between KMP and BUMDes remains limited, particularly in East Nusa Tenggara.

The geographical and socioeconomic characteristics of Kupang and South Central Timor (TTS) Regencies provide an important setting for examining this institutional interaction. Although both regions are located within the same province, their rural economic conditions and institutional challenges are not necessarily identical (Wänström & Persson, 2024; Xiang & Stillwell, 2023; Hung, 2022). Differences in market accessibility, infrastructure, production structures, community characteristics, and institutional capacity may influence the implementation of cooperative and village enterprise models. Studies of BUMDes demonstrate that organizational performance is shaped by contextual differences in managerial resources, governance, and capitalization (Determinant Factors of BUM Desa Performance, 2025). Furthermore, collective action research emphasizes that institutional arrangements must respond to the specific characteristics of local producers and their market environments (Baruah et al., 2022; Ahmad et al., 2024). Consequently, a uniform model of institutional collaboration may not be equally effective across different local contexts. Understanding these contextual differences is essential for developing an institutional model that is theoretically sound and operationally feasible.

The existing discussion on rural economic institutions has largely examined BUMDes effectiveness, cooperative development, village governance, and community-based economic empowerment as relatively separate domains. Previous studies have addressed BUMDes governance and accountability (Sofyani et al., 2021; Putra et al., 2024), village enterprise performance (Ultari & Khoirunurrofik, 2024; Determinant Factors of BUM Desa Performance, 2025), cooperative-based market access (Msosa, 2022; Ahmad et al., 2024), and collaborative governance (Costumato, 2021; Scognamiglio, 2023). However, less attention has been given to the interaction between membership-based cooperatives and village-owned enterprises as complementary institutions within the same rural economic ecosystem. In particular, limited

empirical research has examined how demand orchestration, asset utilization, distribution, market aggregation, and institutional role differentiation can be organized between KMP and BUMDes. This represents an important research gap because the effectiveness of rural economic institutions may increasingly depend on interorganizational coordination rather than the performance of individual organizations in isolation.

This study addresses this gap by examining how Koperasi Merah Putih (KMP) orchestrates demand and develops institutional synergies with BUMDes in selected villages in Kupang and South Central Timor Regencies. The study focuses on the mechanisms through which KMP and BUMDes divide responsibilities, coordinate resources, manage distribution, reduce transaction costs, and create benefits for local MSMEs and communities. Particular attention is given to the KMP pre-order mechanism, the division of roles between cooperative and village enterprise actors, transparency mechanisms, performance monitoring, and contractual arrangements for managing supply-related risks. These dimensions are examined through the perspectives of institutional collaboration, collective action, and rural value-chain coordination.

The study further examines how contextual differences between Kupang and TTS influence the institutional strategies adopted by KMP and BUMDes. Rather than treating rural economic institutions as standardized organizational forms, this research views them as actors embedded within particular social, economic, and institutional environments. This perspective is consistent with research emphasizing that institutional performance depends on the interaction between organizational resources, governance mechanisms, and contextual conditions (Costumato, 2021; Sari et al., 2024). Institutional effectiveness is therefore understood through the capacity of organizations to coordinate resources, establish clear boundaries of responsibility, build trust, and adapt their strategies to local conditions.

Accordingly, the objective of this study is to analyze the role of Koperasi Merah Putih in orchestrating demand and establishing institutional synergies with BUMDes in selected villages of Kupang and South Central Timor Regencies. The study seeks to identify the mechanisms that enable institutional collaboration, examine its implications for MSMEs and rural value chains, and compare the contextual strategies emerging in Kupang and TTS. The findings are expected to contribute to the literature on rural economic development, collaborative governance, institutional arrangements, and cooperative-based economic organization. The study also offers practical insights for strengthening the integration of KMP and BUMDes as complementary institutions in Indonesia's rural economy..

Methods

Research Method

This study employed a qualitative approach with an exploratory case study design to examine the dynamics of institutional relationships between Village-Owned Enterprises (BUMDes) and Merah Putih Cooperatives (Koperasi Merah Putih/KMP) in rural communities in East Nusa Tenggara (NTT). The research was conducted in selected villages in Kupang and South Central Timor (TTS) Regencies. These locations were selected because they represent rural contexts in which BUMDes have been established and KMP formation has been initiated, providing an appropriate setting for examining emerging patterns of institutional interaction, resource coordination, and market collaboration.

Case Selection and Informants

The selection of research cases employed purposive sampling based on criteria relevant to the objectives of the study. The selected cases consisted of villages in Kupang and TTS that had

active or semi-active BUMDes and had either established or were in the process of establishing a Merah Putih Cooperative. This selection strategy enabled the study to focus on villages where interactions between the two institutional models could be directly observed.

The primary informants included BUMDes managers, prospective or existing KMP administrators, village heads, village facilitators, and community leaders. These informants were selected based on their knowledge, involvement, and experience with village economic activities and the development of BUMDes and KMP. During the field exploration, snowball sampling was also employed to identify additional informants who were considered relevant to the research objectives. This process allowed the researchers to expand the range of perspectives and obtain information from actors directly involved in the institutional and economic processes under investigation (Miles & Huberman, 2014).

Data Collection and Analysis

Data were collected through in-depth interviews, observations, and document analysis. Interviews were conducted to explore informants' experiences, perceptions, and assessments concerning the relationship between BUMDes and KMP, including institutional roles, resource coordination, market mechanisms, distribution, and potential areas of collaboration or conflict. Observations were used to examine relevant activities and interactions in the field, while documents provided supporting information concerning institutional arrangements, organizational activities, and village economic management.

The data were analyzed qualitatively using a thematic analysis approach informed by Grounded Theory principles. Analysis was conducted continuously throughout the data collection process and involved data reduction, data display, and conclusion drawing. Interview transcripts, observation records, and relevant documents were subjected to open and axial coding to identify recurring patterns, relationships, and themes relevant to the central research focus, particularly the dynamics of relations between BUMDes and KMP at the village level. The findings were subsequently organized into thematic narratives, analytical matrices, and selected quotations from informants to provide contextual evidence for the emerging themes.

Data Validity and Trustworthiness

The trustworthiness of the findings was established through source and method triangulation. Source triangulation involved comparing information obtained from different categories of informants, including BUMDes managers, KMP administrators, village government representatives, facilitators, and community actors. Method triangulation involved comparing findings derived from interviews, observations, and document analysis. In addition, member checking was conducted by confirming relevant interpretations and findings with selected informants to ensure that the researchers' interpretations accurately reflected the experiences and perspectives of participants. These procedures strengthened the credibility and consistency of the findings and reduced the possibility of relying on a single source or method of evidence (Miles & Huberman, 2014).

Results and Discussion

This study examined the experiences of stakeholders in several villages in Kupang Regency and South Central Timor (TTS) concerning the operations of the Merah Putih Cooperative (KMP) and its relationship with BUMDes.

The general picture emerging from the field findings indicates that acceptance of BUMDes and the Merah Putih Cooperative (KMP) is primarily determined by two factors that operate simultaneously: the practical benefits actually experienced by residents and MSME actors, and the clarity of institutional roles that can be easily understood by stakeholders.

Table 1. Distribution of Coded Quotations by Regency

Regency	Number of Coded Quotations	Percentage (%)
Kupang Regency	17	60.7
South Central Timor (TTS) Regency	11	39.3
Total	28	100.0

Source: Authors' analysis, 2025 ($n = 28$).

Acceptance of KMP

The strongest support came primarily from KMP administrators, facilitators, and BUMDes managers, whereas village heads, BPD members, residents, and MSMEs tended to wait for evidence of operational performance over a period of 14–30 days before providing full support.

“If the cooperative operates based on members' orders, prices can decrease slightly because we buy wholesale. We can immediately feel the difference at home.” (I-07/KMP, supportive; Kupang Regency)

“The program is good, but we want to see how it works first, not just attend meetings.” (I-09/Village Head, hesitant; TTS)

The figure below illustrates the distribution of support and hesitation across institutional roles.

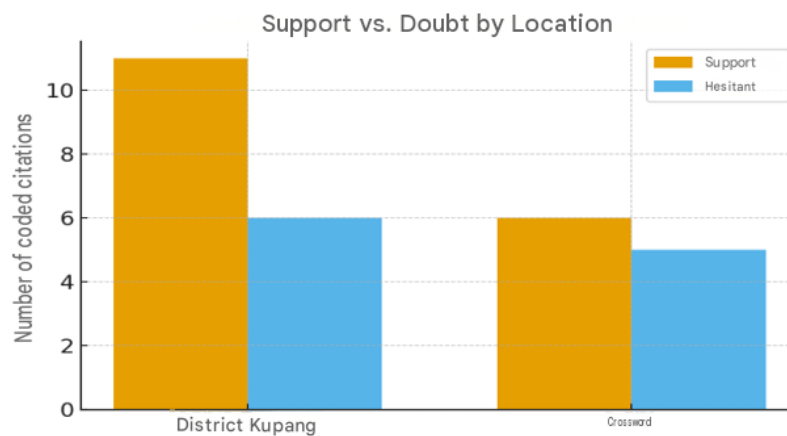


Figure 1. Support and Uncertainty by Location

Source: Author's analysis, 2025 ($n=28$).

Explanation of Figure 1: Kupang Regency: 11 support vs. 6 doubtful (dominated by support). TTS: 6 support vs. 5 doubtful (tending to be balanced, slightly more support).

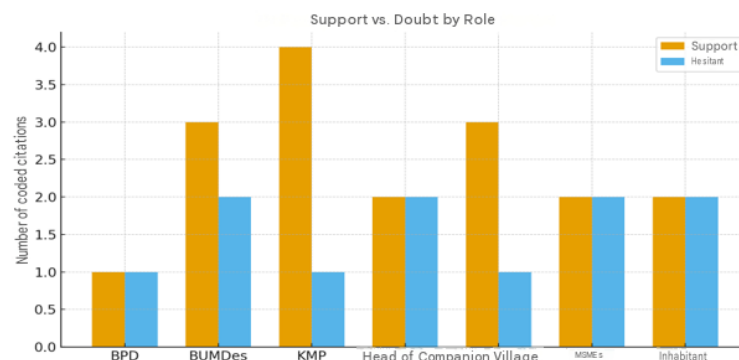


Figure 2. Support and Hesitation by Role

Source: Author's analysis, 2025 (n=28).

Explanation of Figure 2: Village Consultative Body (BPD): 1 support vs. 1 doubt (balanced). Village-Owned Enterprises (BUMDes): 3 support vs. 2 doubts (more support). Village-Owned Enterprises (KMP): 4 support vs. 1 doubt (more support). Village Head: 2 support vs. 2 doubts (balanced). Facilitators: 3 support vs. 1 doubt (more support). MSMEs: 2 support vs. 2 doubts (balanced). Residents: 2 support vs. 2 doubts (balanced).

The strongest support pattern among core actors (KMP administrators, facilitators, and some BUMDes) indicates that those directly involved in the pre-order process, supplier arrangements, and service execution more quickly grasp the "felt value" (more economical prices, precise inventory, scheduled distribution). In contrast, supervisory/user groups (Village Heads, BPDs, residents, MSMEs) tend to wait for concise performance evidence of 14–30 days before providing full support. This illustrates a "perception gap" between implementers and supervisors/users: legitimacy grows not from socialization, but from consistently observable operational results. When proof-of-concept is presented (e.g., trend rotation ≤ 14 days, stock-out $\leq 10\%$ of days), skepticism shifts to more robust acceptance. This means that KMP thrives when benefits are quickly observable (price/availability) and simply measurable.

Demand-driven performance

Member pre-orders consolidate demand, unlock volume discounts, reduce dead stock/stock-outs, improve inventory rotation, and stabilize cash flow.

"Weekly orders allow us to know the exact volume; there's rarely any leftover stock." (I-02/KMP, support; Kupang Regency)

Pre-orders shift logistics from a "push" to a "pull" approach. This mechanism reduces coordination costs (communication, price discovery, volume adjustments), improves inventory rotation (stock doesn't stagnate), reduces stock-outs, and creates more predictable cash flow. The effects are felt not only in village channels, but also in households (small but regular price differences) and MSMEs (order certainty). Theoretically, this aligns with the logic of resource orchestration aggregated demand increases bargaining power over suppliers and minimizes waste. This means that KMP's demand orchestration reduces coordination costs and increases bargaining power over suppliers.

Asset-Network Synergy

The most accepted scheme is for BUMDes to focus on assets/operations/counters, and KMPs on members/markets/suppliers-offtakers/distribution. Role fencing prevents kiosk duplication, which could trigger price wars.

"Savings and loans are better with KMPs that are member-based; BUMDes focuses on assets and counters." (I-07/BUMDes, support; Kupang Regency)

"If KMPs also open stores, they will compete for customers and create a price war." (I-06/BUMDes, doubtful; TTS)

Explanation of Figure 3: BUMDes plays a primary role in the asset/operations and financial domains of the kiosk; KMP plays a primary role in the membership/market, distribution, and partnerships with suppliers/offtakers. This delineation prevents kiosk duplication and maintains margins, while reducing coordination costs.



Figure 3. BUMDes–KMP Role Matrix

Source: Synthesis of the asset–network synergy design.

The role fencing that positions BUMDes as the asset/operations/counter operator and KMP as the member/market/supplier-offtaker manager transforms potential channel conflict into value chain collaboration. By avoiding kiosk duplication, margins are protected, and institutions complement each other: BUMDes maintains the kiosk service level (core stock, service hours), and KMP maintains demand flow and upstream-downstream partnerships. Role clarity also reduces transaction costs (role ambiguity, repeated negotiations, and monitoring), resulting in more disciplined execution and consistent results. Thus, role clarity reduces institutional ambiguity and transaction costs, transforming coordination into productive collaboration.

Minimalist-Routine Transparency

Monthly one-page reports (turnover, margin, cash balance, 3 best-selling items, stock-out records) and quarterly Key Performance Indicators (KPIs) enable residents/BPDs to see tangible progress.

"If the report is posted every month, we trust it and want to participate." (I-13/Resident, support; Kupang Regency)

"Publication of quarterly indicators makes it easier for us to monitor." (I-22/BPD, support; Kupang Regency)

"One-page reports" and quarterly KPIs create high observability with low administrative costs. The public can assess performance without having to read lengthy reports: turnover, margin, cash balance, 3 best-selling items, and stock-outs are enough to spark substantive discussion. The cycle is clear: routine information → trust → participation → discipline → performance → legitimacy. Simple but consistent transparency is more effective than "perfect but infrequent" transparency. This explains why non-implementing groups' doubts decrease when the information flow is maintained. Simple but consistent transparency creates a cycle of trust that sustains operational discipline.

Risk Lockdown via a Concise MoU

Residents'/MSMEs' concerns about dead stock, returns, and payment terms eased when the 2-3-page MoU included a Service Level Agreement (SLA) for procurement/supply. The SLA is

a service level agreement between the supplier and the KMP/BUMDes that sets out supply performance targets, how to measure them, and the consequences.

"Who is responsible for dead stock? That's what we want to be clear about first." (I-12/Resident, unsure; TTS)

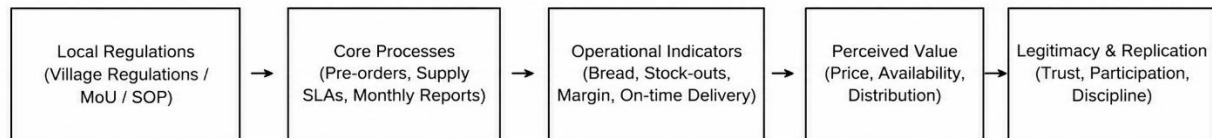


Figure 4. Theory of Change (Rules → Process → Indicators → Values → Legitimacy)

Source: Author's synthesis of field findings.

Explanation of Figure 4: Local rules (village regulations/MoUs) trigger core processes (pre-orders, supply SLAs, 1-page reports), resulting in stable operational indicators (rotation, stock-outs, margins, on-time). The result is perceived value (price, availability, distribution), which strengthens trust, participation, and discipline; this cycle fosters legitimacy and replication of practices.

Public doubts about "who will cover dead stock?", "how about returns?", and "what are the terms?" are normal in the initial phase. A clear 2–3-page MoU outlines supply SLAs, return mechanisms, and realistic terms. This is not just a document, but a coordination tool that maintains cash flow and clarifies risk allocation. Once risks are mapped and bound by concise rules, resistance decreases and commitment increases. Early contractual clarity increases predictability and maintains cash flow during the pilot phase.

Impact on MSMEs

In areas with market access (Kupang), KMP promotes order aggregation, quality/packaging curation, weekly offtaker intake, and scheduled delivery.

"With scheduled delivery, we don't have to worry about shipping." (I-16/MSME, support; Kupang Regency)

"There are local offtakers ready to pick up MSME products weekly." (I-04/KMP, support; Kupang Regency)

For MSMEs, certainty of supply and uptake is "operational oxygen." KMP provides weekly order aggregation and offtakers, while encouraging quality/packaging standardization as an entry point for urban retail. Scheduled distribution reduces coordination costs (calls/reorders, missed deliveries), improves timeliness, and strengthens the reputation of village products. Thus, KMP is not only a collective buyer, but also a market curator that prepares MSMEs to move up a level.

Regional context moderation

Southeastern Timor-Leste Regency focuses on availability and price stability, a low buffer stock, and a reorder point. Meanwhile, Kupang Regency focuses on MSME marketing aggregation, quality/packaging standards, and forward contracts.

"The important thing is that goods are available and prices are stable, don't run out." (I-14/Resident, unsure; TTS)

The logistical context (distance, infrastructure, transportation costs) and market access shape design requirements. In TTS, the priority is the availability of core goods and price stability (a

low buffer stock and a clear reorder point). In Kupang, market aggregation and quality/packaging are more relevant. This means that one recipe is not enough, and the success of KMP depends on adapting strategies to local cost structures and market opportunities, not solely on procedural compliance.

Village-Owned Enterprises' Effectiveness as Asset Operators

Villages with a rotation period of ≤ 14 days, stock-out times of $\leq 10\%$, margins of 8–12%, and supply accuracy of $\geq 90\%$ are more likely to stabilize and absorb KMP pre-orders.

"We have a kiosk and a warehouse; maintaining and recording inventory is easier here." (I-05/BUMDes, support; Kupang Regency)

Four indicators inventory rotation stock-out rate, gross margin, and supply accuracy are sufficient to assess the readiness of the village office. Villages that achieve a rotation of ≤ 14 days, stock-out $\leq 10\%$ of days, margins of 8–12%, and on-time $\geq 90\%$ demonstrate service stability and readiness to absorb KMP pre-orders. This simple index "translates" abstract governance into auditable operational language, facilitating learning between villages and reducing costly trial and error. The performance of the village-owned enterprise (BUMDes) counter serves as a lever for village-level service channels and streamlines KMP's orchestration of requests.

Institutional Readiness & Management Transition

Transitions without handover minutes/asset lists weaken inventory data and undermine trust. Transition SOPs (BA, stocktaking, cash-bank reconciliation) emerge as core controls.

"Management changes often occur without proper minutes and asset lists." (I-08/BUMDes, doubtful; TTS)

The handover of assets and data (BA, asset lists, stocktaking, cash-bank reconciliation) serves as institutional insurance to ensure the organization's memory is not lost during management changes. Without this, inventory data is weak, cash flow is biased, and public trust declines. A concise and routine transition SOP maintains data integrity, service continuity, and accountability three elements that maintain medium-term legitimacy. Institutional continuity determines data quality and accountability, a prerequisite for reliable service.

Additional Supporting Variables

Simple and lightweight digital administrative capacity building (standard forms, mobile spreadsheets), the role of women (pre-order administration) and youth (distribution), one-page quality/packaging guidelines, supplier diversification, and low safety stocks improve the organization's learning curve, market access, and supply resilience.

"A one-page report is sufficient to monitor cash, stock, and sales." (I-20/Assistant, support; Kupang Regency)

"If packaging standards aren't clear, it's difficult to enter city stores." (I-17/MSME, unsure; TTS)

Realistic capacity building (standard forms, mobile spreadsheets, PDF catalogs, messaging groups for pre-orders) accelerates the learning curve without being overwhelming. Women are effective in administration (accuracy), while youth excel in distribution (mobility). One-page quality/packaging standards expand retail access, while supplier diversification and low safety stocks improve supply resilience. This combination builds a resilient service ecosystem: lightweight, disciplined, and ready to grow. Therefore, a lightweight, inclusive, and standardized operational foundation accelerates organizational learning and expands markets.

Institutional Synergy, Demand Orchestration, and Adaptive Governance in Rural Economic Development

The findings demonstrate that the effectiveness of Koperasi Merah Putih (KMP) is determined not merely by organizational establishment but by its capacity to coordinate demand, resources, and institutional responsibilities with BUMDes. The pre-order mechanism illustrates how demand aggregation can reduce inventory uncertainty, improve stock turnover, and strengthen purchasing capacity. This finding is consistent with Lin et al. (2021) and Owot et al. (2023), who emphasize the importance of supply diversification, information sharing, and trust in improving supply chain performance. However, unlike conventional supply chain studies, this research demonstrates that demand coordination in rural communities also functions as an institutional mechanism connecting cooperative membership with village-owned operational assets.

Another aspect of collaborative governance is the division of responsibilities between BUMDes and KMP. BUMDes is an asset/operational manager while KMP coordinates membership, market access, suppliers and distribution. The arrangement is compatible with the three collaborative performance dimensions identified by Costumato (2021), Bentzen et al. (2023) and Scognamiglio (2023): trust, formalization, and interorganizational coordination. However, the present results show that institutional integration is not an essential precondition for collaboration. On the contrary, it is possible to lower transaction costs if the organizational functions are clearly separated and institutional autonomy is preserved.

Transparency becomes yet another pathway to the institutional legitimization of operational performance. One-page monthly reports and quarterly performance indicators allow for organizational activities to be accessed by residents and supervisory institutions. This discovery is in line with the research conducted by Sofyani et al. (2021, 2023) which proves the link between transparency and community trust in village governance in Indonesia. A similar argument has been made by Tran and Lac (2022) and Costumato (2021), especially when it comes to the linkage between trust, participation and institutional performance. The present study builds upon these views by examining and elucidating the relationship between simplified reporting and operational accountability and community participation and organizational legitimacy.

The results also indicate that effectiveness of the institution is situation specific. While TTS focuses on product availability and price stability, Kupang focuses on market aggregation, packaging standards, offtaker relationships. This is aligned with Ahmad et al. (2024) and Baruah et al. (2022) who point to the need of collective action, leadership and contextual adaptation to enhance smallholder value chains. The value added in this study is the explanation of the need for differentiated institutional strategies in order to accommodate the different rural economic conditions, instead of applying uniform cooperative implementation.

From an asset–network synergy point of view, this study represents an attempt to move forward, as in this perspective, institutional effectiveness is seen as arising from the complementarity of organizational assets, from clearly defined responsibilities and from coordinated demands. In practice, the results indicate that village institutions should focus on developing short-term MoUs, supply level agreements, regular financial reporting, management transfer processes, and realistic digital capacity building. These mechanisms align with the studies on relational quality, collective marketing, and supply chain resilience (Relational Quality in Public–Private Partnerships, 2023; Lin et al., 2021; Owot et al., 2023).

The novelty is to put KMP as an institution which not only serves as an additional business entity of the village but also can be a demand-orchestrating actor with different functions from

BUMDes. However, the limitations of the study are that it was qualitative, only certain areas were selected and no longitudinal performance measurements were taken. Further studies are needed to investigate the effectiveness of the institutional arrangements in the context of comparative multi-village studies, longitudinal monitoring and mixed methods to determine if the proposed institutional approaches bring about sustained improvements in access to markets, financial performance, community involvement, and MSME development. The management and digital administration practices should also be explored as gender-inclusive institutional learning practices, as per the observations made by Ahmad et al. (2024) and Tongcua-Orlanes & Bacongus (2026).

Conclusion

This research demonstrates that the Red and White Cooperative (KMP) effectively functions as a member-based demand orchestrator, transforming coordination into tangible performance. Through a simple yet disciplined pre-order mechanism, demand is aggregated, inventory is more precise, and cash flow is more predictable. This success is further strengthened when the roles of the KMP and the Village-Owned Enterprise (BUMDes) are clearly demarcated: the BUMDes manages assets/operations/counters, while the KMP manages members/markets, suppliers-offtakers, and distribution. This allows potential channel conflicts to be transformed into value chain collaboration that protects margins and lowers transaction costs. Minimal but routine transparency in the form of "one-page reports" and monitoring of simple operational indicators (rotation, stock-outs, margins, and supply accuracy) fosters trust, stimulates participation, and establishes disciplined execution that serves as a source of institutional legitimacy.

The findings also emphasize the importance of locking down risks through a concise MoU containing a supply SLA, a return mechanism, and realistic payment terms, so that initial concerns of residents and MSMEs can be alleviated without compromising cash flow health. At the same time, implementation strategies need to be contextualized: areas with logistical challenges require a focus on core product availability and price stability, while areas with market access require strengthening marketing aggregation, quality/packaging, and offtaker arrangements. Institutional readiness and the continuity of institutional memory through handover minutes, stocktaking, and cash-bank reconciliation during management transitions are prerequisites for service continuity, supported by realistic human resource capacity building, modest digital adoption, and the inclusive role of women and youth in administration and distribution.

References

- Ahmad, S. R., Shadbolt, N., & Reid, J. (2024). Collective action for rice smallholder's value chain: Insight from Yogyakarta, Indonesia. *Journal of Co-operative Organization and Management*, 12(1), 100236. <https://doi.org/10.1016/j.jcom.2024.100236>
- Badan Pusat Statistik Provinsi Nusa Tenggara Timur. (2024). East Nusa Tenggara economy in the first quarter of 2024. <https://lembatakab.bps.go.id/en/pressrelease/2024/08/04/382/east-nusa-tenggara-economy-in-q1-2024.html>
- Baruah, S., Mohanty, S., & Rola, A. C. (2022). Small Farmers Large Field (SFLF): A synchronized collective action model for improving the livelihood of small farmers in India. *Food Security*, 14, 323–336. <https://doi.org/10.1007/s12571-021-01236-x>
- Bentzen, T. Ø., & Torfing, J. (2023). COVID-19-induced governance transformation: How external shocks may spur cross-organizational collaboration and trust-based

- management. *Public Administration*, 101(4), 1291-1308. <https://doi.org/10.1111/padm.12881>
- Costumato, L. (2021). Collaboration among public organizations: A systematic literature review on determinants of interinstitutional performance. *International Journal of Public Sector Management*, 34(3), 247–273. <https://doi.org/10.1108/IJPSM-03-2020-0069>
- Dewi, Y. F., Susilawati, S., & Eljawati, E. (2026). Financial Governance And Accountability Of Village-Owned Enterprises In Promoting Community Economic Independence. *International Journal of Social Sciences*, 2(1), 227-241. <https://doi.org/10.51805/ijss.v2i1.532>
- Hadi, S., Marta, A., Amin, R. M., & Febrina, R. (2024). Rural development in community empowerment through the governance of village-owned enterprises (BUMDes). *Nakhoda: Jurnal Ilmu Pemerintahan*, 23(1), 121-134. <https://doi.org/10.35967/njip.v23i1.702>
- Handayani, E., Garad, A., Suyadi, A., & Tubastuvi, N. (2023). Increasing the performance of village services with good governance and participation. *World Development Sustainability*, 3, 100089. <https://doi.org/10.1016/j.wds.2023.100089>
- Hilmawan, R., Aprianti, Y., Vo, D. T. H., Yudaruddin, R., Bintoro, R. F. A., Fitrianto, Y., & Wahyuningsih, N. (2023). Rural development from village funds, village-owned enterprises, and village original income. *Journal of Open Innovation: Technology, Market, and Complexity*, 9(4), 100159. <https://doi.org/10.1016/j.joitmc.2023.100159>
- Hung, J. (2022). Hukou system influencing the structural, institutional inequalities in China: The multifaceted disadvantages rural hukou holders face. *Social Sciences*, 11(5), 194. <https://doi.org/10.3390/socsci11050194>
- Ibrahim, I., Mintasrihardi, M., Mukhlisin, M., & Iskandar, S. (2025). Innovative management and capacity building of village-owned enterprises (BUMDes) for economic welfare and entrepreneurship in the West Sumbawa gold mining area. *Indonesian Journal of Geography*, 57(2), 273-283. <https://doi.org/10.22146/ijg.98035>
- Ibrahim, I., Mintasrihardi, M., Mukhlisin, M., & Iskandar, S. (2025). Innovative management and capacity building of village-owned enterprises (BUMDes) for economic welfare and entrepreneurship in the West Sumbawa gold mining area. *Indonesian Journal of Geography*, 57(2), 273-283.
- Kania, I., Anggadwita, G., & Alamanda, D. T. (2021). A new approach to stimulate rural entrepreneurship through village-owned enterprises in Indonesia. *Journal of Enterprising Communities: People and Places in the Global Economy*, 15(3), 432–450. <https://doi.org/10.1108/JEC-07-2020-0137>
- Kurnianto, S., & Iswanu, B. (2021). Governance and performance of village-owned enterprises (BUMDes). *Jurnal Riset Akuntansi dan Bisnis Airlangga*, 6(2), 1150–1170. <https://doi.org/10.20473/jraba.v6i2.187>
- Lin, Y., Fan, D., Shi, X., & Fu, M. (2021). The effects of supply chain diversification during the COVID-19 crisis: Evidence from Chinese manufacturers. *Transportation Research Part E: Logistics and Transportation Review*, 155, 102493. <https://doi.org/10.1016/j.tre.2021.102493>

- Marzuki, S. S., Karim, S. A. H., & Adam, R. P. (2026). Village Owned Enterprises as a Financial Support Mechanism for Educational Management and Village Development. *Journal of Educational Management Research*, 5(2), 1341-1351. <https://doi.org/10.61987/jemr.v5i2.1874>
- Mohammadi, A., Omid Najafabadi, M., & Poursaeed, A. (2023). A comprehensive sustainable development framework; community capitals and village-cooperative initiative. *Brazilian journal of biology*, 84, e269509. <https://doi.org/10.1590/1519-6984.269509>
- Msosa, S. K. (2022). Challenges facing women cooperatives in accessing markets for agricultural products: A systematic literature review. *International Review of Management and Marketing*, 12(6), 37–43. <https://doi.org/10.32479/irmm.13420>
- Muhith, M. R. D., & Widiyarta, A. (2025). Governance Principles Driving Sustainable Village Economic and Social Development. *Academia Open*, 10(2), 10-21070. <https://doi.org/10.21070/acopen.10.2025.11937>
- Nindiasari, A. D., Isa, W. R. A., Saharudin, E., & Sugiantoro, H. A. (2025). Financial Governance, Operational Strategy, and Community Empowerment in Rural Enterprises: Case Evidence from BUMDes Wukirraya, Bantul. *Journal of International SDGs Community Service*, 1(2). <https://doi.org/10.9319/jiscs.v1i2.64379>
- Nurhayati, & Rahman. (2023). Systematic literature review: Collaborative governance in the public sector. *Jurnal Agregasi*, 11(1), 1–22. <https://doi.org/10.34010/agregasi.v11i1.9207>
- Owot, G. M., Okello, D. M., Olido, K., & Odongo, W. (2023). Trust-supply chain performance relationships: Unraveling the mediating role of transaction cost attributes in agribusiness SMEs. *Frontiers in Sustainable Food Systems*, 7, 1113819. <https://doi.org/10.3389/fsufs.2023.1113819>
- Pawitan, G., Lesmono, D., Aritionang, K., & Diyanah, M. C. (2025). Empowering rural communities through strengthening village-owned enterprises (BUMDes) for sustainable socioeconomic development: A case study of Mekarsari Village, Garut Regency. *Society*, 13(1), 256-274. <https://doi.org/10.33019/society.v13i1.797>
- Pramesti, E. W. (2024). Enhancing Rural Community Welfare Through Village-Owned Enterprises: Evidence From Bumdes Lohdjinawi, Indonesia. *Jurnal Ilmiah Mahasiswa Akuntansi Universitas Tulungagung*, 4(2), 122-132. https://doi.org/10.36563/jamanta_unita.v4i2.1354
- Putra, N. B., Rusliyawati, R., Damayanti, F., & Ardimansyah, A. (2024). Uncovering the meaning of accountability: Is the Village-Owned Enterprises (BUMDes) accountable? *Jurnal Pendidikan Akuntansi & Keuangan*, 12(1). <https://doi.org/10.17509/jpak.v12i1>
- Said, A. L., Hidayat, R., & Irawati, D. R. A. (2026). Exploration of Governance, Institutional and Technology Adaptation Models of Village-Owned Enterprises (Bumdes) in Encouraging Village Independence. *International Journal of Special Education*, 41(9s), 217-228.
- Sari, D. M. M. Y., & Prameswari, I. A. N. (2023). Implementation of accountability and responsibility in governance structure on village owned enterprises. *Business Review and Case Studies*, 4(3), 251. <https://doi.org/10.17358/brcs.4.3.251>

- Sari, N. P., Muhammad, H., Imron, M., Azwar Anas, M. Y., Sutomo, S., Assiddiq, D. U., & Jannah, U. M. (2024). Exploring integrated governance to stimulate sustainable performance of village-owned enterprises. *Jati: Jurnal Akuntansi Terapan Indonesia*, 7(2), 133–150. <https://doi.org/10.18196/jati.v7i2.23845>
- Scognamiglio, F. (2023). The public sector and co-creation in turbulent times: A systematic literature review on robust governance in the COVID-19 emergency. *Public Administration*, 101(1), 53–70. <https://doi.org/10.1111/padm.12875>
- Sofyani, H., Riyadh, H. A., & Fahlevi, H. (2022). Do accountability and transparency promote community trust? Evidence from village government in Indonesia. *Journal of Accounting & Organizational Change*, 18(3), 397–418. <https://doi.org/10.1108/JAOC-06-2020-0070>
- Sofyani, H., Yaya, R., & Saleh, Z. (2023). Transparency and community trust in village government: Does corruption perception matter? *Financial Accountability & Management*, 39(2), 355–374. <https://doi.org/10.1111/faam.12351>
- Srirejeki, K. (2018). Empowering the role of village owned enterprises (BUMDes) for rural development: case of Indonesia. *Jurnal Akuntansi, Manajemen dan Ekonomi*, 20(1), 5–10.
- Tongcua-Orlanes, G., & Baconguis, R. R. (2026). Enhancing market access of smallholder farmers: Interaction patterns of AE clusters with institutional buyers. *Journal of Business Economics and Agribusiness*, 3(2). <https://doi.org/10.47134/jbea.v3i2.1082>
- Tran, T. B., & Lac, H. A. (2022). Participation, transparency and trust in local governance in transitional countries: The case of Vietnam. *Post-Communist Economies*, 34(4), 478–498. <https://doi.org/10.1080/14631377.2021.2006493>
- Ultari, T., & Khoirunurrofik. (2024). The role of village-owned enterprises (BUMDes) in village development: Empirical evidence from villages in Indonesia. *Jurnal Perencanaan Pembangunan: The Indonesian Journal of Development Planning*, 8(2), 256–280. <https://doi.org/10.36574/jpp.v8i2.559>
- Wänström, J., & Persson, B. (2024). Local governments on an equal footing? Policy coordination between Swedish regions and municipalities in regional development policy. *Regional & Federal Studies*, 34(5), 733–756. <https://doi.org/10.1080/13597566.2023.2232306>
- Winarsi, S., Widyantoro, A., & Moechthar, O. (2018). The Law Principles for Village-Owned Enterprises (BUMDes) Management in Indonesia to Improve the Village's Economy. *Sociological Jurisprudence Journal*, 1(2), 130–136. <https://doi.org/10.22225/scj.1.2.735.130-136>
- Xiang, L., & Stillwell, J. (2023). Rural–Urban Educational Inequalities and Their Spatial Variations in China: L. Xiang and J. Stillwell. *Applied Spatial Analysis and Policy*, 16(2), 873–896. <https://doi.org/10.1007/s12061-023-09506-1>
- Yuan, D., Yau, Y., & Bao, H. (2024). Urban village redevelopment in China: Conflict formation and management from a neo-institutional economics perspective. *Cities*, 145, 104710. <https://doi.org/10.1016/j.cities.2023.104710>
- Zhang, J., & Zhang, W. (2024). Harnessing digital technologies for rural industrial integration: a pathway to sustainable growth. *Systems*, 12(12), 564.