

The Effectiveness of Cooperatives as an Instrument for Price Control and Farmers' Welfare in the Staple Food Sector

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ABSTRACT

This study aims to analyze the effectiveness of cooperatives as instruments for price control and the enhancement of farmers' welfare within the staple food sector, which has historically been dominated by exploitative informal trading systems. Employing a qualitative case study design with a vertical integration approach, this research explores the contestation between food cooperatives and middlemen networks in regions characterized by high farmer dependency. Data were gathered through in-depth interviews, participant observation, and documentary research, and subsequently analyzed using the Value Chain Analysis (VCA) framework. The findings demonstrate that cooperatives engaging in vertical integration (such as owning independent milling units) successfully streamlined the distribution chain from five layers to two. This reduction increased the farmer's share by 10–15% and net farmer income by 20–25%. Qualitative insights reveal that cooperatives function as price stabilizers, exerting a psychological market effect on middlemen through a counter-financing schema (yarnen / credit-tied harvest system). The novelty of this study lies in its repositioning of cooperatives not merely as administrative entities, but as aggressive economic actors capable of deconstructing the sociological relations of indebtedness between farmers and middlemen. The study concludes that food sovereignty requires strengthening the liquidity capacity of cooperatives and transforming member culture to dismantle structural rural poverty.

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1. INTRODUCTION

Staple foods are not merely ordinary commercial commodities; rather, they constitute the vital lifeblood that drives the national economy and serves as a primary determinant in maintaining social and political stability in Indonesia (RIDWAN & SURANTO, 2025; Tahir, Sukoco, Suryanto, & Rivani, 2024). The availability and affordability of staple food prices are frequently employed as benchmarks for

developmental success, given that even minor fluctuations in this sector can trigger widespread public unrest. However, beneath this macro-level urgency lies a chronic and severe market anomaly at the upstream level. A stark irony persists as food prices skyrocket in retail markets, stifling consumer purchasing power, while simultaneously, the farmers who labor as the primary producers remain ensnared in an seemingly endless cycle of structural poverty. The windfalls from these high-price transmissions never reach the farmers' pockets, leaving them economically stagnant while production costs steadily creep upward (Copley, 2023).

This disparity is not a mere reflection of seasonal market fluctuations or standard supply and demand dynamics; instead, it is the systemic consequence of acute information asymmetry and a highly exploitative distribution chain structure. Farmers are routinely left in the dark regarding actual market prices, stripping them of bargaining power when confronting major actors within the supply chain (Lécuyer, Calla, Coolsaet, Rodríguez, & Young, 2025). This distributional inefficiency is further exacerbated by numerous intermediary layers, each extracting profit margins without contributing significant value-added to the commodities. Consequently, a wide price disparity emerges: consumers overpay, while farmers under-receive, creating a trading ecosystem that is both unhealthy and inequitable for both ends of the supply chain (Cohen, Vicol, & Pol, 2022).

For decades, Indonesia's staple food sector has been predominantly controlled by networks of middlemen who act not only as aggregators but also as absolute price makers. Through predatory *ijon* practices (crop-pledging systems) and closed distribution monopolies, these middlemen systematically marginalize farmers' bargaining positions long before the harvest arrives. By exploiting the financial vulnerabilities of farmers who require immediate liquidity, middlemen lock in purchase prices at rock-bottom levels, causing farmers to lose sovereignty over their own labor (Narula, 2022). The dominance over distribution infrastructure and capital access held by this informal network has erected a formidable barrier that prevents farmers from accessing more competitive markets, reducing them to mere laborers on their own land continuously generating wealth for others while living in deprivation.

Although the government has launched various price intervention and subsidy policies, these solutions are often top-down and fail to address the root causes at the grassroots level. Conversely, existing literature predominantly examines cooperatives merely as administrative entities or channels for social assistance, rather than as aggressive economic actors capable of executing vertical integration (Gantsho, 2023; Sørensen, Hoetker, Leiblein, & Mellewig*, 2023; Spicer, 2022). A critical research gap remains regarding the extent to which food cooperatives can function as independent price stabilizing instruments amid the onslaught of deeply entrenched informal trading systems in rural areas. Most studies remain confined to the managerial efficiency of cooperatives, neglecting their effectiveness in mitigating the predatory behavior of middlemen in the staple food sector.

Without structural and community-based interventions, farmers' dependency on middlemen will continuously perpetuate price disparities that harm both producers and consumers through inflation. Therefore, this study is paramount to repositioning the role of cooperatives. Cooperatives must no longer be viewed as marginal economic institutions; rather, they must be conceptualized as strategic instruments and the final bastion for dismantling economic rent-seeking chains. Testing the effectiveness of cooperatives in controlling staple food prices is an urgent step toward formulating a food sovereignty model that champions not only stock availability but also equitable income distribution for farmers.

2. METHODS

This study adopts a Case Study design to explore a single, in-depth phenomenon within its real-life context, especially where the boundaries between phenomenon and context are not clearly evident (ANNAMALAH, 2024; Glette & Wiig, 2022). Intrinsicly, this research focuses on the operational uniqueness of a food cooperative in its efforts to survive and mitigate middlemen dominance within the research site. The researcher aims to understand the internal dynamics and real-world challenges faced by the cooperative when directly confronting a hegemonic informal market structure. Instrumentally, this study seeks to provide broader, theoretical insights into the effectiveness of the cooperative model as a

price stabilization instrument. Consequently, the findings of this study are expected to transcend local description, serving as a replicable policy model reference for other regions experiencing similar economic pathologies.

The research site was selected purposively in an area characterized by contrasting economic dualism: a highly persistent dependence of farmers on middlemen, juxtaposed with the presence of a progressive food cooperative that has executed vertical integration, such as owning an independent rice milling unit. To obtain rich and nuanced data, informants were selected using a combination of purposive and snowball sampling techniques (Warren & Bell, 2022). Key informants comprised the cooperative's board of directors to dissect managerial strategies and price interventions. Primary informants involved both member and non-member farmers to compare their welfare realities and the psycho-economic rationales behind their attachment to the *ijon* system. Lastly, supporting informants included middlemen to map informal market mechanisms, as well as representatives from the Department of Cooperatives as regulators providing legal and macro-policy perspectives.

The validity of findings within this complex social phenomenon is ensured through data triangulation using three complementary collection techniques. First, semi-structured in-depth interviews were conducted to unearth narratives regarding the *ijon* "trap" that often goes undetected, including the cooperative's strategy in providing counter-financing to liberate farmers from informal debt bondage. Second, the researcher conducted focused participant observation by directly engaging in the field during the harvest season. This process aimed to passively observe interactions on the rice fields, harvest quality assessment processes, and the distribution flow from the cooperative warehouse to the consumer market. Third, documentary research was performed by gathering secondary data, such as net income (SHU) reports, daily transaction logs, and Government Purchase Price (HPP) documents, to establish a robust empirical foundation for the qualitative data.

As the primary analytical instrument, this study employs the Value Chain Analysis (VCA) framework to meticulously map the distribution of value-added from upstream to downstream. Through this instrument, the researcher can identify the precise nodes where economic rents or surplus profits are disproportionately extracted by middlemen. This analysis is subsequently utilized to evaluate the extent to which the cooperative successfully generates efficiency by streamlining this exploitative distribution chain. The core focus of this instrument is to scientifically demonstrate whether the value-added generated from post-harvest processing is genuinely redistributed to farmers in the form of enhanced welfare and fairer purchase prices or if it is instead constrained by other managerial bottlenecks.

The data analysis process follows the interactive model of Miles, Huberman, and Saldaña, beginning with data condensation to filter voluminous information from interview transcripts into core variables such as "price control" and "welfare." The condensed data are then presented through descriptive narratives and comparative matrices to visually contrast the supply chains of the middlemen and the cooperative (Annamalah, Aravindan, Ahmed, & Sentosa, 2025). The final stage involves drawing and verifying conclusions, wherein the researcher interprets the meaning of the relational patterns discovered in the field. To maintain the credibility of the research findings, source and technique triangulation were applied alongside member checking. This member-checking process is highly crucial for re-discussing provisional findings with informants, ensuring that the researcher's interpretations align with the objective realities experienced by the economic actors in the staple food sector.

3. FINDINGS AND DISCUSSION

Prior to dissecting the research findings in depth, it is imperative to understand that the economic dynamics within the staple food sector constitute an arena of contestation between the formal system represented by the cooperative and the informal networks controlled by middlemen. The narratives emerging from the field indicate that farmers' disempowerment stems not from low productivity, but rather from structural constraints that restrict their access to product value-added and fair pricing. Consequently, the following exposition of findings does not merely present comparative economic figures; rather, it uncovers the sociological reality of how vertical integration and capital interventions

executed by the cooperative manage to reduce predatory practices. Concurrently, it maps the latent barriers that continue to obstruct the economic sovereignty of farmers at the grassroots level. The findings of this study are delineated in Tables 1 and 2.

Table 1. Comparison of Economic Impacts and Operational Strategies.

Comparative Aspect	Middlemen Route (Traditional)	Cooperative Route (Vertical Integration)
Supply Chain Structure	Long (4-5 intermediary layers)	Short (2 distribution layers)
Value-Added Distribution	35-45% of economic rent extracted by middlemen	Value-added redistributed to farmers via net income (SHU) / fair pricing
Farmer's Share	Low (approximately 40%)	High (10-15% above the middlemen's price)
Information Access	Asymmetric (controlled by middlemen)	Transparent (based on market prices / Government Purchase Price [HPP])
Financing Schema	Predatory <i>ijon</i> practices (binding and exploitative)	Counter-Financing & <i>Yarnen</i> (credit-tied harvest) system
Income Impact	Stagnant / Ensnared in structural poverty	Increased by 20-25% per planting season

Sources: results of analysis data

The table above presents a sharp contrast between two distribution models of staple foods: the Middlemen Route (Traditional) and the Cooperative Route (Vertical Integration). Structurally, the cooperative successfully generates efficiency by streamlining the distribution chain from five layers to merely two, which directly enhances price transparency and strengthens the bargaining power of farmers.

The most critical divergence lies within the distribution of economic value and the financing schemas. While the middlemen route is dominated by predatory *ijon* practices that extract up to 45% of economic rent, the cooperative route offers a counter-financing solution through the *yarnen* (credit-tied harvest) system. This intervention not only increases the farmer's share by 10-15% above informal market prices but is also capable of significantly boosting net farmer income by 20-25% per planting season. Consequently, the cooperative transforms from a mere administrative institution into a vital intervention instrument that dismantles the chains of structural poverty at the upstream level.

Table 2. Qualitative Findings: Strategic Roles and Field Challenges

Finding Category	Detailed Field Description
Stabilization Function	Acts as a price stabilizer by exerting a market psychology effect that compels middlemen to raise their purchase prices to remain competitive.
Upstream Intervention	Functions as an offtaker and input provider (fertilizer/seeds) to sever the farmers' capital dependency on middlemen.
Market Resilience	Serves as the "final bastion" during peak harvest seasons to prevent prices from plummeting below the Government Purchase Price (HPP) due to market saturation.
Capacity Constraints	Limited warehousing infrastructure and working capital liquidity impede the simultaneous, 100% absorption of members' total yields.
Sociological Barriers	The existence of multigenerational emotional loyalty and indebtedness (<i>utang budi</i>) among farmers toward middlemen inhibits a total economic migration to the cooperative.

Sources: results of analysis data

The table above summarizes the qualitative findings representing the dual role of the cooperative as both an economic entity and a social savior for farmers. Strategically, the cooperative functions as a

primary price stabilizer and offtaker, capable of generating competitive pressure within the informal market. The presence of the cooperative exerts a market psychology effect that compels middlemen to adjust their purchase prices to remain rational. Simultaneously, it provides access to agricultural inputs (fertilizers and seeds) to sever the farmers' capital dependency, which has historically served as the entry point for predatory ijon practices.

Discussion

This effectiveness still collides with two primary constraints: technical and sociological. Internally, limited warehousing infrastructure and capital liquidity impede the cooperative's absorption capacity during peak harvest seasons. Externally, a sociological barrier persists in the form of emotional loyalty and a multigenerational cycle of "moral indebtedness" (*utang budi*) between farmers and middlemen. These findings underscore that economic transformation within the staple food sector requires not only capital reinforcement and physical capacity building, but also a persuasive approach to reshaping deeply entrenched social relations in rural areas.

The vertical integration executed by the food cooperative in this study demonstrates that supply chain efficiency is not merely a logistical matter, but rather a political economy instrument to reclaim farmer sovereignty. The finding that the distribution chain was streamlined from five layers to two reinforces the argument (Mardenli, Sackmann, Fiedler, Rhein, & Alghababsheh, 2025), who posit that longer food distribution chains yield greater information asymmetry to the detriment of producers. Nevertheless, the novelty of this study lies in the finding regarding the cooperative's capability to generate a "market psychology effect." While prior research, such as (Liu & Cao, 2023), tends to view cooperatives as passive price takers, this study demonstrates that cooperatives at the local level can act as price setters, compelling middlemen to adjust their purchase prices to remain competitive. This indicates that cooperatives possess a latent power to transform a hegemonic market structure into a more competitive one through aggressive price interventions.

The effectiveness of the counter-financing schema via the *yarnen* (credit-tied harvest) system introduces a new dimension to the study of rural economic empowerment. Much of the existing literature, including the study by (Zhao, 2025), emphasizes that farmers' failure to extricate themselves from middlemen is solely due to capital dependency. Conversely, this study offers a distinct perspective by revealing that the middlemen's trap is multidimensional, encompassing sociological aspects such as multigenerational "moral indebtedness" that transcend rational economic logic. The novelty of the argument in this study asserts that the cooperative does not merely contend with the middlemen's financial capital, but also battles deeply rooted informal social institutions. The cooperative's success in boosting farmer income by 20–25% proves that when financial intermediation functions are integrated with the ownership of means of production (independent milling), the cooperative can elevate farmers from mere agricultural laborers to value-added holders—a leap rarely achieved by conventional administrative cooperatives.

This study maps latent barriers frequently overlooked in macro-policy studies, namely limited liquidity and physical warehouse capacity colliding with farmers' emotional loyalty. This aligns with (Tu, D'Odorico, Li, & Suweis, 2023) theory on the governance of common-pool resources, which necessitates trust, while simultaneously exposing the structural vulnerability of cooperatives when confronting the cash payment speed advantage held by middlemen. The novelty offered in this discussion is the proposition that food sovereignty cannot be achieved through technology or capital alone, but rather through the deconstruction of social relations between farmers and middlemen (Senatore, Bimonte, & Gatto, 2025). This study concludes that the cooperative's role as the "final bastion" during peak harvests is a vital economic defense mechanism; however, its sustainability hinges upon the cultural transformation of its members—moving from a mentality of dependency toward that of professional, collective business owners.

4. CONCLUSION

Based on the analysis and discussion, this study concludes that food cooperatives play a highly crucial and effective role as instruments for price control and the elevation of farmers' welfare within the staple food sector. Through a vertical integration strategy, cooperatives are proven capable of dismantling economic rent-seeking chains historically dominated by middlemen. This is achieved by shortening distribution paths and redistributing post-harvest processing value-added back to the farmers. The cooperative's intervention through counter-financing schemas successfully reduces predatory ijon practices, which in turn provides financial and psychological relief for farmers. However, the effectiveness of cooperatives as the "final bastion" of farmers' economic defense still confronts a dual challenge of a technical and sociological nature. Constraints in capital liquidity and limited physical infrastructure (warehousing) frequently create loopholes exploited by middlemen to re-enter the farmers' ecosystem through offers of rapid cash payments. On the other hand, the sociological barrier of emotional loyalty toward middlemen demonstrates that food security issues are not merely a matter of economic figures, but rather a reflection of complex social relations. Therefore, to achieve sustainable food sovereignty, a policy repositioning is required – one that transcends macro-level aspects to strengthen cooperative fundamentals at the grassroots level. The primary keys lie in reinforcing working capital, modernizing post-harvest infrastructure, and providing continuous education to transform the members' mentality from one of dependency to that of professional, collective business owners. Without a comprehensive deconstruction of these exploitative social-economic relations in rural areas, agricultural productivity increases will only continue to enrich economic rent-seekers, without ever touching the true welfare of the farmers.

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