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Price Stability and Productivity in West Java Potato Farming: Indofood Partnership vs. Traditional Sales

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ABSTRACT

This study explores the comparative advantages of Indofood's contract farming model over traditional potato marketing practices in West Java, Indonesia, focusing on price stability and sustainable production. West Java, the country's leading potato-producing region, has recently faced declining yields and unstable prices that threaten farmer livelihoods. Indofood's structured partnership addresses these issues by offering guaranteed pricing, input support, and continuous agronomic assistance. A mixed-methods approach was applied, combining quantitative surveys with qualitative interviews and focus group discussions involving Indofood-affiliated and independent farmers in Garut and Pangalengan. The analysis considered production consistency, income security, crop quality, and farmer perceptions while accounting for external factors such as weather variability and market fluctuations. Findings reveal significant differences between partner and non-partner farmers. Partnership members reported higher yields, more secure prices, and greater income stability, supported by access to Atlantic seed potatoes, fertilizers, and training. These resources reduced pest damage, improved farm management, and minimized market risks. Focus group results showed high satisfaction and trust in Indofood's contractual commitments, with many farmers benefiting from community development initiatives and eco-friendly practices. Nonetheless, some concerns remain regarding seed availability and buy-back scheduling. The study demonstrates that Indofood's contract farming model strengthens farmer resilience, enhances productivity, and contributes to rural sustainability. By integrating fixed pricing with farmer capacity building and community support, the model offers a scalable template for agribusiness partnerships in emerging economies seeking to address similar agricultural challenges.

1. Introduction

Potatoes are one of Indonesia's top vegetable commodities, ranking third in production volume after chilli and cabbage. According to data from the Central Statistics Agency (Saitama *et al*., 2017), 2009 potato production accounted for 10.20% of total national vegetable production. West Java Province is Indonesia's primary potato production centre, contributing approximately 27.25% of national output. Within West Java, Bandung Regency is the most

strategic region, contributing over 57% of the province's total potato production (Rosliani *et al*., 2020).

In the context of national agriculture, potato cultivation plays a vital role in meeting domestic food demand and providing significant income for farmers. However, production faces persistent challenges, including price volatility and declining yields, which undermine farmer welfare and threaten long-term sustainability (Irfan *et al*., 2022).

Various strategies have been introduced to address these challenges, including adopting partnership models between farmers and agribusiness companies. International experiences show that contract-based farming can improve supply chain efficiency, reduce post-harvest waste, and support sustainable practices (Prihatiningsih *et al*., 2020)

In Indonesia, PT Indofood Fritolay Makmur has implemented a structured partnership scheme with local farmers, most notably through the Atlantic potato farming model in Cigedug Village, West Java. Indofood provides certified seeds, fertilizers, and agronomy training, while ensuring market absorption through buy-back agreements. This arrangement benefits both parties: Indofood secures raw material supply, and farmers access stable prices and inputs (Maulana *et al*., 2022).

Data from the West Java Provincial Agriculture Office in 2023 show mixed performance trends. While potato productivity under Indofood's partnership fell by 4% compared to 2018, Garut Regency exhibited resilience with gradual productivity recovery, unlike West Bandung and Bandung Regencies, which recorded sharp declines (Karuniawan *et al*., 2021).

These dynamics highlight the need to examine how Indofood's partnership scheme addresses farmer-level challenges of declining productivity and unstable prices. Indofood's model emphasizes production efficiency, access to inputs, and adoption of sustainable farming practices such as crop rotation and soil management (Taylor & Dawson, 2021).

Furthermore, the partnership scheme allows farmers to expand their farmland by collaborating with additional farmer groups in surrounding areas. This facilitates greater production capacity and strengthens the local agricultural ecosystem through better farming practices and community-based cooperation. Such efforts align with integrated agricultural partnership programs, emphasizing the importance of collaboration between private companies and farmers in overcoming financial barriers, improving product quality, and ensuring stable market access (Arouna *et al*., 2021). Studies on black soybean farming show that partnership schemes with cooperatives significantly improve production efficiency. This confirms that collaborative farming models can optimize input use and reduce transaction risks for smallholders (Andajani and Sidhi, 2019)

While previous research has largely focused on the economic advantages of contract farming in general, few studies in Indonesia have compared the Indofood partnership with traditional sales systems by integrating both economic and socio-institutional dimensions. This study contributes to the literature by explicitly linking price stability, productivity, and farmer perceptions to the sustainability of potato farming in West Java. The novelty lies in combining quantitative productivity and income indicators with qualitative insights on trust, satisfaction, and social capital within the partnership scheme.

The purpose of this study is to compare Indofood's partnership model with traditional potato marketing systems in West Java. Specifically, it aims to (1) analyze differences in productivity, price stability, and income security between partner and non-partner farmers, (2) assess farmer perceptions of trust and satisfaction within the partnership, and (3) evaluate the implications of partnership challenges, such as seed availability and buy-back scheduling, for

long-term sustainability. In the broader context of agricultural development, farmer–agribusiness partnerships such as Indofood's offer a strategic pathway to building resilient, market-oriented, and environmentally sustainable farming systems. By examining both the benefits and limitations of this model, the study provides insights into strengthening inclusive agricultural policies and supporting national food security goals.

2. Methodology

This study employed a quantitative research design complemented by qualitative techniques to provide comprehensive insights into the Indofood partnership model and its effects on potato farmers. The design allowed for statistical measurement of productivity and income outcomes, while qualitative approaches enriched the analysis with farmers' experiences and perceptions.

The study was conducted in two major potato-producing areas in West Java: Garut Regency and Pangalengan (Bandung Regency). These locations were purposively selected because they represent Indofood partnership areas and independent farming systems, allowing for a clear comparison.

The study population comprised potato farmers in Garut and Pangalengan, both affiliated with Indofood and those selling through traditional markets. One hundred twenty respondents were surveyed, consisting of 60 Indofood partner farmers and 60 independent farmers. The sample size was determined based on representativeness and feasibility within the research timeframe. Respondents were selected purposively to ensure they had at least three years of experience in potato farming, enabling them to provide reliable information about production patterns, income fluctuations, and perceptions of partnership benefits. In addition, five Indofood management representatives and four agricultural extension officials were interviewed to gain institutional perspectives.

Both primary and secondary data were utilized. Primary data came from surveys, structured interviews, and Focus Group Discussions (FGDs). In contrast, secondary data were collected from Indofood's internal reports, publications of the Central Statistics Agency, and West Java Agricultural Office records.

Survey questionnaires were distributed to all 120 farmer respondents to gather quantitative data on production levels, price stability, and income security. Structured interviews were conducted with Indofood management, extension officials, and selected farmers to capture detailed perspectives on challenges and benefits. FGDs were held with farmer groups, supply chain actors, and government representatives to discuss collective experiences and external influences such as weather and policy changes.

Independent variables included elements of the Indofood partnership: price guarantees, seed provision, input support, agronomic training, and buy-back agreements. Dependent variables included farmer income stability, potato yield, and market access. Control variables were external factors such as weather variability, market volatility, and government regulations.

Quantitative survey data were processed using descriptive and comparative statistical methods to identify differences between partner and independent farmers. Qualitative data from interviews and FGDs were analyzed thematically to enrich the interpretation of quantitative results. Together, these methods provided a robust basis for evaluating how the Indofood partnership contributes to improved farmer performance and economic resilience.

3. Results and Discussion

3.1 Farmer Profile

This study analyzed farmer characteristics and group discussions to assess the impact of Indofood's partnership program. The analysis considered three dimensions: (1) economic aspects related to farmer welfare, (2) sustainability in terms of farming practices and business continuity, and (3) social–institutional relations with companies, communities, and government. Respondents consisted of two farmer groups: Indofood partners and non-partner (traditional) farmers who market potatoes independently.

Comparisons between the two groups provide insights into how the partnership influences farmer profiles and outcomes. Qualitative data from FGDs were used to identify recurring themes. Table 1 presents the demographic and farming characteristics of the respondents. It shows that partner farmers are generally younger, cultivate larger land areas, and adopt Atlantic/Bliss varieties, while traditional farmers are more experienced with Granola varieties.

Table 1. Farmers' Profile

Characteristics		Types of Partnership	
		Indofood	Traditional
Age	25-45 years	67%	52%
	45-65 years	33%	48%
Gender	Male	100%	100%
	Female	0%	0%
Education	ES-JHS	90%	90%
	SHS-Bachelor	10%	10%
Experience	5-10 years	50%	76%
	10-20 years	50%	24%
Land Use	>1 Ha	100%	81%
	<1Ha	0%	0%
Agriculture type	Partnership	88%	0%
	Traditional	13%	100%
Variety	Atlantic/Bliss	91%	9%
	Granola	9%	91%

The results in Table 1 indicate that Indofood partner farmers are predominantly in the productive age group (25 – 45 years), while traditional farmers are relatively older. All respondents were male, reflecting the gendered nature of potato farming in these regions. Education levels were mostly elementary to junior high school, suggesting limited formal education across both groups.

Interestingly, traditional farmers reported longer farming experience (10–20 years), while partner farmers tended to have 5–10 years of experience. This suggests that Indofood's program is more attractive to younger or less experienced farmers seeking stable markets and modern inputs. Landholding size also differs: all partner farmers cultivate more than 1 ha, compared to only 81% of traditional farmers, indicating that larger landowners are more likely to engage in partnerships.

Variety selection is a key distinction: Indofood farmers mostly use Atlantic/Bliss (91%), the variety required by the company, while traditional farmers rely on Granola (91%), which dominates local markets. This reflects not only market orientation but also adaptation to specific consumer and buyer preferences.

3.2 Economic Layers Related Agronomic and External Factors

Indofood's contract farming model demonstrates clear economic advantages over traditional sales systems in West Java. Partner farmers consistently reported higher yields and more predictable prices, supported by guaranteed pricing, access to inputs, and regular technical assistance. One farmer explained:

"Sekarang pendapatan saya lebih terjamin; saya tidak lagi khawatir harga kentang anjlok saat panen."

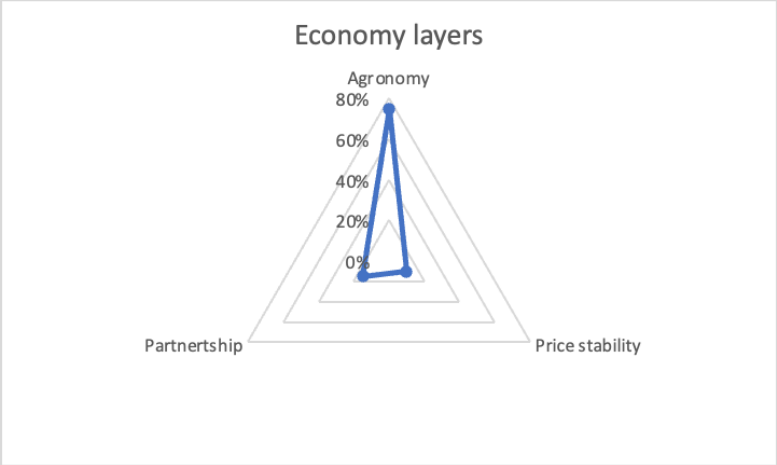

Figure 1. Economic Performance of Indofood Partner and Traditional Farmers.

The radial diagram illustrates stronger outcomes for partner farmers in price stability, yield, and income security, though challenges remain regarding contract pricing flexibility and quality standards. A key benefit of the partnership is gradual income growth. No partner farmer reported declining or stagnant income after joining the program; 86% noted moderate improvement, and 14% reported significant increases. This shows that income security, rather than sudden profit, is the primary benefit. One FGD participant remarked:

"*It's not immediately rich, but there is an increase in yield that makes our lives more comfortable."*

Table 2 compares production costs, yields, and margins between partner and independent farmers to further analyze the economic impact.

Table 2. Comparative Costs and Margins of Indofood and Traditional Potato Farmers in West Java.

Variable	Types of Partnership	
	Indofood	Traditional
Production cost	IDR67,000,000	IDR27,000,000
Harvest result	12,000 Kg	8,000 Kg
Price from Indofood IDR11.000/kg	IDR132,000,000	
Minimum price in traditional farmers IDR8,000/kg		IDR64,000,000
Net margin	IDR65,000,000	IDR37,000,000

Partner farmers secure larger profits despite higher production costs because of guaranteed prices and greater yields. This indicates that market certainty provided by Indofood outweighs the higher input investments required.

FGDs also revealed several challenges. Some farmers expressed dissatisfaction when contract prices were lower than prevailing market prices:

"If the market price goes up a lot, we only get the price according to the contract, so we feel a bit at a loss."

Although such cases were infrequent, they suggest a need for more competitive pricing mechanisms. Another issue concerns Indofood's strict quality standards. Farmers worried that crops not meeting specifications might be rejected or downgraded, reducing their earnings. However, most respondents accepted this as motivation to improve farming practices, especially with Indofood's ongoing technical support.

Research on social forestry programs in Banyuwangi demonstrates that institutional support and long-term partnerships contribute directly to farmer welfare, proving that structured collaborations improve income and social capital (Fakhruddin *et al*., 2022). Analysis of horticultural supply chains highlights those successful partnerships depend on integrated strategies addressing market access, distribution challenges, and marketing approaches, which are also critical in contract farming systems such as the Indofood model (Azmi *et al*., 2025).

These findings highlight the partnership's dual nature: while it secures stable income and higher productivity, it also introduces risks tied to contractual rigidity and quality compliance. Therefore, open communication, transparent pricing adjustments, and continued agronomic assistance are essential to sustain farmer trust and ensure the model's long-term effectiveness.

One potential solution to mitigate farmer dissatisfaction during market spikes is to design more flexible pricing schemes, such as bonus payments when market prices exceed a certain threshold or partial indexation to market trends. Such mechanisms would balance

price stability with fairness, ensuring that farmers do not feel disadvantaged during periods of high demand.

3.3 Relationship Layers Related to Agronomic and External Factors

Indofood's partnerships affect technical and economic outcomes and the relational dynamics among farmers, companies, communities, and government agencies. The relationship between farmers and Indofood is characterized by strong mutual trust. Satisfaction levels are very high: 90% of partner farmers reported being "very satisfied" and 10% "satisfied," with no cases of dissatisfaction. This reflects Indofood's consistency in fulfilling its commitments to price guarantees, crop purchases, and the provision of agronomic support (Debela *et al*., 2022). As one farmer stated:

"Indofood always keeps the contract; we are calm because the crops will definitely be purchased according to the agreement."

Long-term relationships reinforce this trust. Most farmers have partnered with Indofood for 5 – 10 years, indicating a stable institutional bond in which farmers view themselves as part of Indofood's supply chain, while Indofood remains committed to sustaining local partnerships.

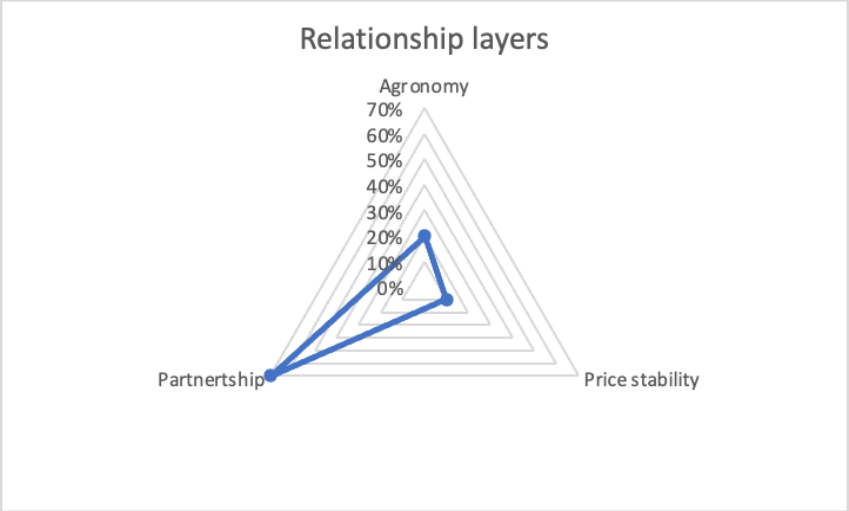

Figure 2. Comparative Performance Between Indofood Partner and Independent Farmers Across Key Indicators

The radar diagram highlights higher scores for partnership farmers in income stability, crop quality, and trust in market access, while revealing lower seed availability and buy-back scheduling performance.

In addition to contractual stability, farmers valued Indofood's agronomic support. Assistance included access to quality Atlantic/Bliss seeds, provision of fertilizers and pesticides, and effective pest and disease management. About 30% of farmers cited seed access as the greatest benefit, while all respondents (100%) rated Indofood's pest control support as effective. These services reduced the risk of crop losses and strengthened long-term sustainability (Bellemare & Novak, 2017).

However, sustainability challenges remain. Farmers across both groups (100%) agreed that unpredictable climate conditions such as extreme rainfall or disease outbreaks pose major risks beyond Indofood's direct control. As one farmer explained:

"If the rainy season is extreme, production drops a lot even though Indofood has helped."

This underlines the need for adaptive strategies, including improved irrigation systems, weather-resistant varieties, and stronger integration with government agricultural policies. Figure 2 further illustrates these dynamics. While partnership farmers outperformed non-partners in economic and relational indicators, weaker seed availability and buy-back scheduling scores point to structural issues within the program. Addressing these concerns through diversified seed supply and more flexible procurement arrangements would strengthen trust and sustain farmer satisfaction in the long run.

3.4 Sustainable Layers Related to Agronomic

FGDs revealed that Indofood's partnership encourages more sustainable agricultural practices among partner farmers. A major indicator is the adoption of superior seed varieties. Before the partnership, most farmers relied on Granola for local markets. Now, 91% of partner farmers cultivate Atlantic/Bliss required by Indofood while only 9% still plant Granola. In contrast, 91% of non-partner farmers remain dependent on Granola (Dubbert *et al*., 2023). The switch to Atlantic/Bliss was accompanied by better harvest quality. About 86% of partner farmers rated their potato quality as "good," compared to only 35% of non-partners, most of whom described their yields as merely "fair." This shows that the partnership provides access to inputs and practices that raise quality to industry standards.

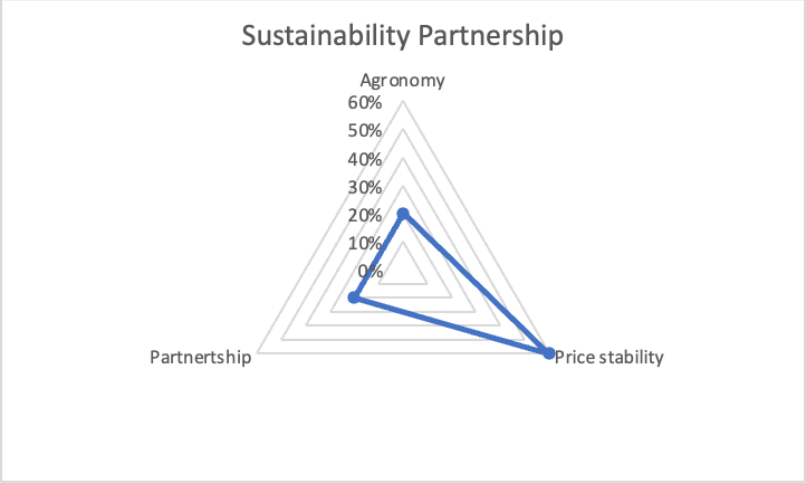

Figure 3. Sustainability Outcomes of Indofood Partner and Traditional Farmers

The radar diagram highlights stronger sustainability performance for partner farmers in seed access, training, and product quality, though risks remain dependent on single varieties and external climate shocks.

Indofood's program also facilitates knowledge and technology transfer. About 81% of partner farmers reported receiving agronomy training covering cultivation techniques, fertilization, and pest control while only 56% of non-partners accessed similar training. For

some, technology adoption was the greatest benefit: 24% of respondents cited better farming technology as their main gain. (Meemken & Bellemare, 2020). As one farmer explained:

"We used to use traditional methods, now we are taught many new techniques; the potato yields are better."

These improvements increased yield and quality while promoting environmentally friendly practices such as crop rotation, balanced fertilizer use, and efficient irrigation. The partnership thus contributes not only to short-term productivity but also to land sustainability. Farmer participation studies in soybean agribusiness training programs indicate that attitudes toward institutional support and learning opportunities strongly influence the success of partnership-based agricultural development (Prasetyo *et al*., 2021)

Another sustainability dimension is market security. Non-partner farmers frequently experienced sharp price fluctuations (85%), while none of the partner farmers reported harmful volatility after joining Indofood. Guaranteed pricing protects farmers from unpredictable market downturns, enabling them to plan investments sustainably.

However, reliance on a single buyer and standardized varieties raises potential risks. Overdependence on Atlantic/Bliss could reduce genetic diversity and farmer autonomy in the long term. Climate variability, cited by all farmers as a persistent threat, also limits the partnership's ability to fully secure sustainability outcomes. Addressing these challenges may require diversification of seed sources, collaborative research on climate-resilient varieties, and stronger integration with government adaptation programs.

3.5 External Factors of Analysis That Affect The Low-Price Stability of Indofood Partnerships Compared to Traditional Farmers

In the previous economic and sustainability layers, price stability was identified as the Indofood partnership's lowest-scoring factor. Several external conditions explain why stability remains limited, even under contract farming.

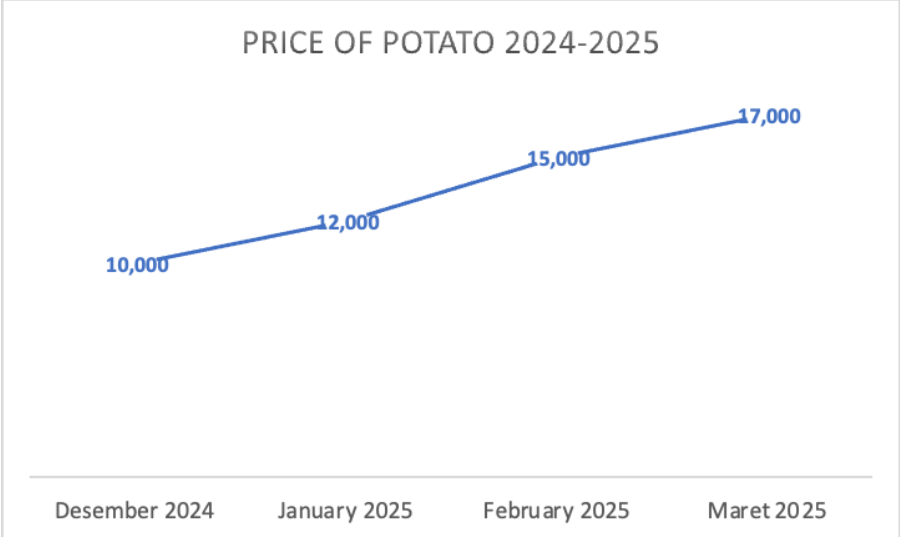

Figure 4. Potato Price Fluctuations in The Last Four Months Among Traditional Farmers

The graph shows sharp price increases driven by seasonal demand and weather disruptions, highlighting why contract prices appear less favorable during market peaks.

1. Commodity Market Volatility
   Seasonal supply and demand, transport costs, and global market dynamics have strongly influenced potato prices in the last four months. Contract prices offered by Indofood protect farmers from sudden drops and prevent them from benefiting during price surges. For example, prices spiked before the Chinese New Year due to reduced supply, leaving partner farmers locked into fixed rates while traditional farmers who harvested successfully enjoyed windfall gains.
2. Extreme weather
   FGDs in Garut Regency revealed that extreme rainfall and higher disease pressure reduced regional yields. Limited supply from non-partner farmers pushed up market prices, yet partner farmers remained tied to fixed contracts. This disconnect contributed to perceptions of reduced economic benefit despite stable sales.
3. Rising Production Costs
   Input costs—including fertilizers, labor, and energy—have increased substantially, but contract prices do not adjust dynamically to inflation. Farmers and industry partners remain bound by earlier agreements, which lowers real margins after cost deductions and further reduces the perceived stability of partnership prices.

These external factors highlight the paradox of contract farming: while it shields farmers from downside risks, it also limits opportunities during favorable market conditions. From a policy and management perspective, more flexible pricing mechanisms such as partial price indexation, bonus schemes during demand surges, or shared cost-adjustment clauses—could improve farmer perceptions of fairness and strengthen long-term trust in the partnership.

3.6 Benefits of Indofood Partnership

Beyond technical and economic outcomes, Indofood's partnership program also strengthens social relations among farmers. Partner farmers tend to form formal and informal networks where knowledge and experiences are exchanged. Innovations learned through training are often shared with non-partner neighbors, helping disseminate better fertilization and pest control practices. As a result, partnerships contribute to collective learning and community-based agricultural improvement.

Success stories also create role models. Several FGD participants reported that neighbors became interested in joining after seeing positive outcomes:

"Many people ask how to join the Indofood program."

This reputation effect creates a multiplier dynamic, encouraging wider adoption of modern practices through partnerships or independent innovation. However, inclusivity remains an issue. Partner farmers generally have larger landholdings (>1 ha), while about 19% of non-partner farmers cultivate less than 1 ha and are thus ineligible for partnership. If left unaddressed, this could widen the gap between larger and smaller farmers. Broader outreach or complementary programs for smallholders would be needed to ensure equitable benefits.

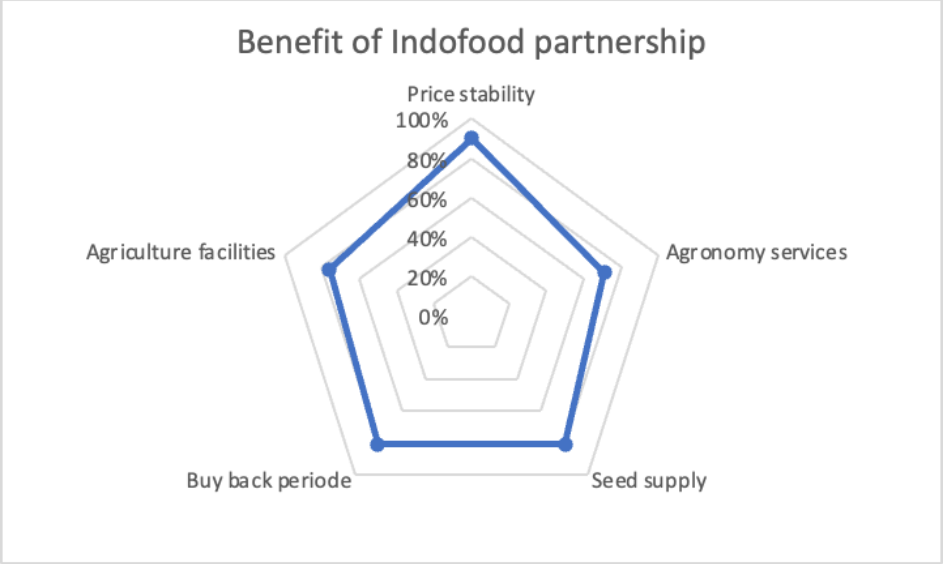

Figure 5. Perceived Benefits of Indofood Partnership among Farmers

The diagram shows very strong benefits in price stability, moderate benefits in agronomic services and agricultural facilities, but very weak outcomes in seed supply and buyback commitments.

Radar diagram results indicate five key benefit dimensions:

1. Price Stability
   The strongest benefit, scoring close to 100%, reflects the certainty of guaranteed prices and income security (Yanuar *et al*., 2022). This aligns with evidence that partnerships reduce farmer exposure to market volatility.
2. Agronomic Services
   Scoring 60–70%, this shows that technical guidance and counseling are valued but not as intensively provided as price guarantees. Strengthening training programs could further boost productivity.
3. Agricultural Facilities
   With a score of 70–80%, farmers appreciated access to inputs and infrastructure, which improved planting and harvesting efficiency.
4. Seed Supply
   Scoring near 0%, this is the weakest aspect. Farmers continue sourcing seed independently, suggesting Indofood's limited role in ensuring seed availability. The weakness in seed supply not only delays planting schedules but also increases farmer dependency on external sources, reducing overall efficiency of the partnership. Likewise, uncertainty in buy-back scheduling creates liquidity pressures for farmers with limited capital reserves. Addressing these gaps will require Indofood to diversify seed sourcing through certified cooperatives and research institutions, while introducing phased buy-back mechanisms to ease cash-flow management at the farmer level.
5. Buyback Period.
   Also near 0%, indicating unclear or inconsistent buyback timelines. This reduces farmers' confidence in timely product absorption.

Overall, the Indofood partnership strongly enhances price stability and provides tangible support through facilities and agronomic services. However, the weaknesses in seed supply and buyback mechanisms undermine its potential to deliver comprehensive benefits. Addressing these gaps by establishing reliable seed distribution systems and clearer buyback policies would strengthen farmer trust and ensure the program's long-term sustainability.

3.7 Analysis of Indofood's Partnership Relationship with Local Structural Institutions or Government

Indofood's partnership with potato farmers is closely linked to government structures, particularly the Ministry of Agriculture. The government provides a legal framework and supporting infrastructure, and acts as a communication bridge and supervisor. Such synergy between private companies and government institutions is crucial to ensuring fairness, transparency, and sustainability in contract farming. Stronger integration—especially in input provision and market guarantees could further enhance the system as a long-term solution for production stability and farmer income.

Farmers, both partners and non-partners, generally acknowledged that government policies support potato cultivation and partnerships. This support includes extension services, fertilizer subsidies, and infrastructure development such as farm roads and irrigation. However, none of the respondents rated the support as “very strong,” suggesting that the government’s role remains moderate. Farmers expressed expectations for more concrete assistance, including interest-free credit, crop insurance, and broader training programs beyond those provided by Indofood.

The institutional relationship between farmers and the government can thus be conducive but not intensive. Farmers rely heavily on Indofood for direct support, while the government contributes mainly by creating a supportive business climate. Local governments occasionally facilitate partnership meetings or provide counseling in collaboration with Indofood, but such involvement remains limited.

At the community level, partnerships strengthen social relations among farmers. Networks formed through group activities and the demonstration effect of successful partner farmers motivate others to improve their practices or seek partnership opportunities. This “spillover effect” enhances local agricultural knowledge and innovation diffusion.

Nonetheless, the sustainability of the partnership ecosystem depends on better integration with local institutions such as cooperatives, farmer groups, and agricultural offices. These institutions could be more active in distributing inputs, providing complementary training, and managing financial assistance. Without such support, smaller farmers—especially those ineligibles for Indofood’s program risk being left behind.

Overall, the Indofood partnership has enhanced socio-economic sustainability by improving farmer capacity, access to inputs, and technical support. Farmers are now better prepared to adopt modern practices and maintain product quality. However, challenges remain: climate change threatens yields, and government support has not yet reached its full potential. Strengthening collaboration between Indofood, local government, and community institutions will be essential to ensure that contract farming contributes to corporate supply chains and inclusive and resilient rural development.

3.8 Business Solution

Based on the analysis and FGDs, Indofood's partnership program has demonstrated positive economic, sustainable, and social impacts. Several strategic solutions can be implemented to strengthen and scale up the model.

1. Expansion of Partnership Areas
   Indofood can expand its program to new potential villages through a pilot village approach inspired by Farmer Field Schools. Farmer groups in these areas receive intensive training on sustainable potato cultivation, use of superior varieties (e.g., Atlantic), and post-harvest management. Expansion reduces supply risks by diversifying production locations and minimizing local disruptions such as drought or pest outbreaks. For farmers, this ensures stable markets and access to technology; Indofood secures a consistent raw material supply while enhancing food security and CSR reputation.
2. Strengthening Farmer Groups through Government Collaboration.
   Partnership sustainability depends on institutional capacity. Indofood, in cooperation with the Ministry of Agriculture, extension centers, and local governments, can formalize partnerships with farmer groups or cooperatives. This includes management training, establishment of cooperative structures, and implementation of Good Agricultural Practices (GAP). Indofood guarantees harvest absorption with contract-based pricing, while government agencies provide institutional support and access to credit or inputs. Similar collaborations, such as the North Sumatra Food Estate program, show the potential for scaling this model to other regions (e.g., Central Java, East Java, West Sumatra, Lombok).
3. Social Responsibility and Dialogue Mechanisms
   Indofood's CSR can further strengthen farmer communities through scholarships for farmer children, agricultural clinics, or infrastructure support (farm roads, irrigation, clean water). Regular dialogue forums involving farmers, Indofood, and extension officers would allow collective decision-making on pricing schemes, planting schedules, and quality standards. Such inclusivity ensures that farmers' voices are integrated into partnership governance.

Overall, FGDs emphasized three main themes: (i) farmer economic stability, (ii) adoption of sustainable farming practices, and (iii) stronger institutional partnerships. Indofood's model organizing farmers into groups, supplying inputs, offering technical training, and guaranteeing harvest prices provides greater farming security than traditional market channels.

While challenges such as weather variability and stringent quality standards persist, intensive support from Indofood helps farmers mitigate these risks. The partnership represents a business solution for stable supply chains and a replicable model for empowering smallholders, improving welfare, and strengthening rural agricultural systems.

3.9 Implementation Plan & Justification

3.9.1 *Expansion of New Areas*

Based on the findings and conclusions, the Indofood partnership model is recommended for expansion into other potential potato-producing regions. The

implementation plan follows a six-step process to ensure sustainable collaboration with local farmers (Figure 6).

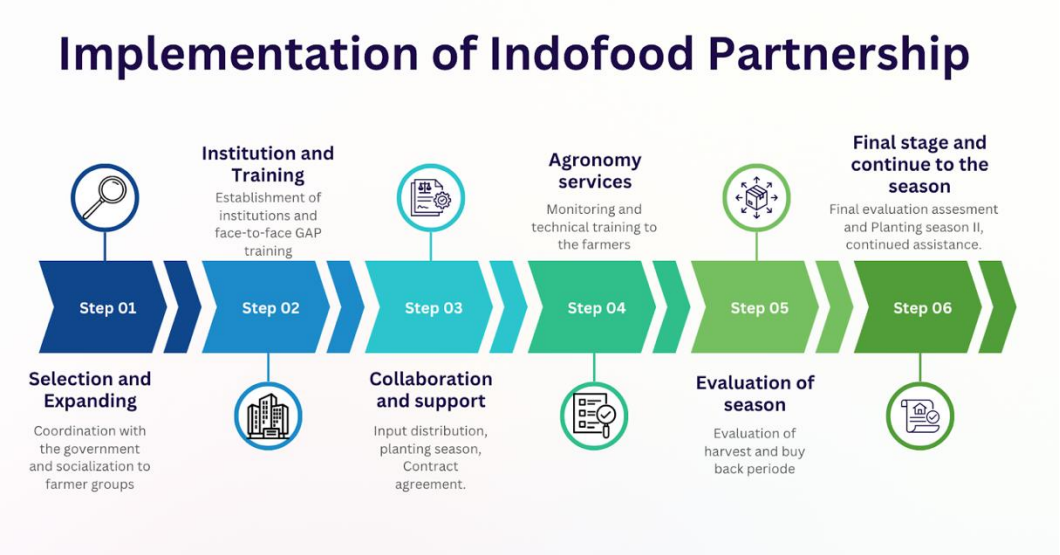

Figure 6. Implementation Flow of The Indofood Partnership Program

The six-step model emphasizes institutional strengthening, agronomic support, and continuous evaluation to sustain farmer–company collaboration.

1. Selection and Expansion.
   Coordination with government stakeholders and socialization with targeted farmer groups in new areas.
2. Institution and Training.
   Establishment of farmer institutions or cooperatives, followed by face-to-face training on Good Agricultural Practices (GAP).
3. Collaboration and Support.
   Provision of production inputs, technical support, and formalization of farmer contracts.
4. Agronomy Services.
   Continuous field monitoring and technical guidance to ensure compliance with agronomic standards.
5. Evaluation of Season.
   Assessment of yields, buy-back mechanisms, and productivity outcomes to strengthen trust and transparency.
6. Final Stage and Continuation.
   Comprehensive evaluation and preparation for subsequent planting seasons with ongoing assistance.
   This staged process strengthens farmer capacity, ensures reliable supply chains, and enhances the sustainability of Indofood's long-term partnership commitments.

3.9.2 *Social Activities and CSR*

Indofood's CSR initiatives complement the partnership program by addressing farmer and community needs beyond direct production. CSR activities focus on education, infrastructure, health, and agricultural support, reinforcing community trust and long-term collaboration.

Examples include:

1. Infrastructure Support.
   In Ngantang District, Malang Regency, Indofood built a 1.5 km farm road linking potato fields to the main distribution route. This improved logistics efficiency, reduced post-harvest losses, and strengthened supply reliability.
2. Agricultural Clinics.
   In collaboration with the District Agriculture Service, Indofood established weekly agricultural clinics offering agronomy advice, integrated pest management (IPM), and first-level agricultural health services.
3. Educational Scholarships.
   Annual scholarships are provided for outstanding farmer children at elementary and junior high levels, fostering long-term community development.

These CSR activities are integrated with the broader partnership framework. They improve farmers' technical and economic capacity and enhance social cohesion and Indofood's image as a responsible agribusiness partner. By simultaneously addressing infrastructure, knowledge, and welfare, CSR programs contribute to inclusive agricultural development and long-term farmer loyalty.

4. Conclusion

This study confirms that Indofood's contract farming partnership delivers significant economic and agronomic advantages over traditional potato marketing systems. Partner farmers achieved higher yields (12,000 kg/ha versus 8,000 kg/ha for non-partners) and benefited from guaranteed prices (IDR 11,000/kg), which provided greater income stability. FGDs revealed that 100% of partner farmers experienced improved income security, with 86% reporting gradual increases, while traditional farmers continued to face unstable returns. Access to certified Atlantic seed, fertilizers, and technical assistance reduced pest risks, improved management, and enhanced crop quality, leading to superior productivity among partner farmers.

Beyond technical and economic outcomes, the partnership strengthened institutional and social dimensions. Nearly 90% of partner farmers expressed high satisfaction and trust in Indofood's contract commitments. Community development initiatives such as agronomic training, cooperative support, and CSR programs expanded farmer networks and encouraged sustainable practices, including integrated pest management, crop rotation, and efficient irrigation. These interactive platforms helped reinforce the long-term sustainability of farming groups.

However, challenges remain. Farmers expressed dissatisfaction with seed availability and the timing of buy-back implementation, which limited operational flexibility and occasionally strained trust. Addressing these weaknesses through improved seed distribution systems and more flexible procurement mechanisms will be essential to enhance farmer satisfaction.

Overall, the Indofood model demonstrates that corporate-led partnerships can improve farmer welfare, strengthen resilience against market volatility, and support sustainable agricultural development. With refinements in seed supply and contract management, this model offers a scalable template for agribusiness partnerships in other potato-growing regions and similar commodities in emerging economies.

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