ICIECS
International Conference on Islamic Economics Community Services
FEBI Universitas Islam Negeri Sumatera Utara

Farmers' Economic Dynamics: Challenges, Dependency, and the Role of Middlemen in the Agricultural System of Serdang Bedagai

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Article Info

Article history:

Received 15 April 2023
Revised 2 May 2023
Accepted 17 May 2023

Keywords:

Farmer economic dynamics; middlemen role; patron client relations; agricultural dependency

ABSTRACT

This study investigates the economic dynamics of farmers and the role of middlemen within the agricultural system of Serdang Bedagai, Indonesia. Using a qualitative case study approach, data were collected through unstructured in-depth interviews, field observations, and document analysis to explore the structural, economic, and institutional conditions shaping farmer livelihoods. The findings reveal that farmers experience multidimensional constraints, including dependency on middlemen for credit and market access, significant price asymmetry along the value chain, rising production costs due to limited access to subsidized inputs, unequal adoption of modern agricultural technologies, and persistent challenges in irrigation and local governance. These interconnected factors reinforce a cycle of vulnerability that limits farmers' bargaining power and economic mobility. The study highlights that farmers' dependency is not merely relational but structurally embedded within an environment of market failures and weak institutional support. The results contribute to agrarian political economy studies by demonstrating how market structure, infrastructure, and credit systems jointly reproduce dependency. Practically, the study offers insights for policymakers to strengthen agricultural infrastructure, expand access to formal credit, improve subsidy distribution, and promote inclusive technological transformation. The research concludes that comprehensive, multi-sectoral interventions are required to enhance farmer welfare and reduce structural dependency within rural agricultural systems.

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1. INTRODUCTION

Agriculture serves as the primary provider of food supplies for society, particularly for rural communities. It plays an essential role in sustaining the livelihood and continuity of a population within a nation. Nearly all countries in the world, including Indonesia, develop their agricultural sector to ensure national food security, and such development is rooted in rural areas, which hold a strategic role in agricultural and economic activities (Harianto).

The Ministry of Finance states that agriculture represents a crucial momentum for strengthening the sector as the backbone of the national economy and a pillar of food security. Government Regulation No. 20 of 2006 on Irrigation asserts that food security is achieved through the sustainability of irrigation systems, extending to the development, operation, and maintenance of irrigation facilities. Amron further explains that irrigation development and management in Indonesia is implemented through five pillars: irrigation infrastructure, irrigation water, irrigation management, irrigation control, and the quality of human resources. The agricultural sector's role in economic development is highly significant, as the majority of Indonesia's population depends on it for their livelihood (Soekartawi, 1994). Dillon (1999) adds that small-scale enterprises which account for approximately 57.9% operate within the agricultural sector. This indicates that agriculture, as the dominant small scale enterprise, should remain a top government priority in every stage of economic development.

In today's digital era, technological advancements have brought substantial changes to the agricultural sector. Agriculture can generally be categorized into modern and traditional systems. Modern agriculture utilizes advanced equipment, while traditional agriculture still relies heavily on manual labor. The Ministry of Agriculture (Kementan) is currently striving to transform traditional farming into modern agricultural practices. The adoption of just 1% technology integration can increase harvest yields by up to 11%.

However, transitioning to modern agriculture requires substantial capital. On the other hand, access to financing from formal financial institutions remains difficult for small farmers due to strict requirements. This issue needs serious attention from both local and national governments. Furthermore, the rising costs of fertilizers, seeds, and pesticides add to the burden. In rice farming, these expenses particularly pesticides have increased due to rising fuel prices. Sudiyarti et al. (2022) highlight that the escalating costs of agricultural inputs significantly affect farmers' production expenditures.

Adding to this challenge is the unstable price of harvested crops. Small farmers often experience considerable losses when selling prices fail to cover production costs. Although agricultural products are sold at high prices in the general market, the prices received by farmers from middlemen are significantly lower, resulting in a wide profit gap. Price stability is therefore a crucial factor in supporting the sustainability of the agricultural sector, as volatile market prices can demotivate farmers and hinder the production of key commodities.

In addition, extreme weather events that may lead to crop failure pose serious risks to agricultural productivity. The government is expected to provide accurate climate forecasts so that farmers can take preventive measures when extreme weather is anticipated.

Indonesian farmers, whether traditional or modern, heavily rely on middlemen (tengkulak) as buyers of their harvests. Farmers' dependence on middlemen is well known; beyond purchasing crops, middlemen often serve as market intermediaries and even as lenders providing capital.

The role of middlemen as buyers must be regulated by the government to ensure stable selling prices that correspond with market rates. Field observations show that the prices offered to farmers are

unstable and significantly lower than market prices. When comparing profits, middlemen often earn double the income of farmers. Megasari (2020) notes that middlemen exert strong influence over both farmers and traders. This situation limits farmers' access to accurate information and restricts their ability to sell at higher prices.

The dependency of farmers on middlemen is inseparable; in fact, farmers' profits and losses are often determined by these middlemen. Farmers' limited access to markets leaves them with no alternative but to sell their harvest to middlemen before the produce spoils or becomes unfit for consumption. This situation is frequently exploited by middlemen, who purchase agricultural products at low prices, often justifying the price with reasons such as transportation costs.

The patron client system, in which small farmers depend on middlemen or "patrons" for access to capital or markets, often places farmers in highly vulnerable positions. Middlemen, acting as patrons, provide loans or other assistance to small-scale farmers but at the same time demand loyalty or disproportionate returns such as requiring farmers to sell their harvest at very low prices.

According to James C. Scott, as quoted in Heddy Shri Ahimsa Putra, the patron–client relationship is a specific form of social interaction involving instrumental friendship, where an individual with higher socio-economic status (the patron) uses his influence and resources to offer protection, advantages, or both to someone of lower status (the client). In return, the client provides general support and assistance, including personal services to the patron. Scott also notes that patronage relationships have distinguishing characteristics: inequality in exchanges, face-to-face interaction, and diffuse flexibility, which makes the relationship broad and adaptable.

These circumstances place farmers, in general, within the lower socioeconomic strata. Even those with large fields or plantations are not guaranteed prosperity; many remain economically disadvantaged. In this regard, government intervention is necessary to break the chain of dependency between farmers and middlemen. The government must open direct market access for farmers so that their reliance on middlemen diminishes and agricultural products can be sold at higher, market-appropriate prices. Furthermore, continuous support and training particularly in modern agricultural practices are essential to enhance farmers' knowledge and independence.

Nevertheless, farmers and middlemen maintain a close relationship. It cannot be denied that middlemen help distribute farmers' produce to markets quickly. Perishable crops, such as vegetables, cannot be stored for long periods, and rapid access provided by middlemen is particularly helpful for farmers in remote areas with limited transportation options.

Despite this close relationship, farmers remain pressured by the low prices offered by middlemen. This highlights the urgent need for government policies addressing market access and pricing mechanisms. The government must also empower farmers economically so they can become more independent and less reliant on middlemen.

Several studies have addressed the relationship between farmers and middlemen. Qariska (2021) examined rice farmers' dependency on middlemen within a patron client framework. Suhartatik (2022) studied the factors influencing farmers' decisions to sell their harvest to middlemen. Sudiarti (2022) analyzed the effects of pesticide and fertilizer costs on farmers' income. Agustina et al. (2024) focused on farmers' dependency on middlemen within the marketing system. These studies primarily investigate farmers' dependency, the impact of agricultural input costs, and the reasons farmers choose to sell to middlemen. In contrast, the present study focuses on the economic dynamics of farmers and the role of middlemen within this system.

This research is expected to provide valuable input for the government in formulating policies related to improving the welfare of farmers in Indonesia. It is hoped that through this study, farmers' access to markets can be expanded, enabling them to sell their produce at higher prices that reflect true market value.

2. METHOD

This study employs a qualitative research design using a case study approach. This approach is appropriate for gaining an in-depth understanding of the phenomena surrounding farmers' economic dynamics and the role of middlemen in the agricultural system. Through this approach, the researcher is able to explore the economic conditions of farmers, the functions of middlemen, and other influencing factors.

The data collection techniques used in this study include unstructured in-depth interviews, observations, and document analysis related to farmers' economic conditions and the role of middlemen. Unstructured in-depth interviews were conducted to gain deeper insights into farmers' experiences and their relationships with middlemen. Observations were carried out by directly visiting the field where farmers and middlemen conduct their activities, in order to obtain empirical data and compare it with interview findings. Document analysis was conducted to identify and compare various sources of information relevant to this research. The data analysis technique employed in this study follows the Miles and Huberman model.section discusses the research methodology.

3. RESULTS AND DISCUSSION (12 pt)

Results

This section presents the core findings of the study regarding the economic dynamics of farmers, the challenges they face, the patterns of dependency on middlemen, and the ongoing transformation within the agricultural system in Serdang Bedagai. The findings were developed through unstructured in-depth interviews, field observations, and document reviews, enabling a comprehensive understanding of the lived experiences of farmers within their socioeconomic context.

Variation in Harvest Sufficiency and Farmers' Economic Conditions

The findings reveal significant variation in the extent to which farmers' harvests can fulfil their daily needs. Some farmers, particularly those who own larger plots of land or whose fields consistently produce high yields, reported that their harvests are sufficient to support their household expenses. These farmers tend to have better access to seeds, fertilizers, and agricultural tools, and benefit from more stable production cycles due to their ability to invest in necessary farming inputs. However, a much larger portion of the farmers interviewed indicated that their harvests rarely meet their daily needs. For many of them, the primary reason for this insufficiency is the obligation to repay debts to middlemen. Because farmers must allocate the majority of their harvest proceeds toward debt repayment, they retain only a small portion of the income often insufficient even for basic subsistence.

This situation becomes more severe during seasons when rainfall is unpredictable, pest attacks occur, or the cost of production surges beyond expectations. Some farmers described a cycle in which they repeatedly fail to accumulate any savings from one harvest season to the next. Instead, they begin each planting cycle with new debts, which deepen their dependence on middlemen. As a

result, the sufficiency of a harvest is not merely determined by agronomic factors such as land area or productivity but is deeply intertwined with economic and structural constraints, particularly debt relationships. Several cases demonstrated that even farmers with relatively large fields continued to struggle economically. High production costs combined with unstable market prices and the burden of informal credit prevent them from experiencing meaningful improvements in their livelihoods. The findings highlight that ownership of land does not necessarily guarantee economic security when the broader market and financial systems remain inaccessible or disadvantageous.

Complex Barriers and Challenges in Agricultural Production

The agricultural challenges faced by farmers are varied and interrelated. These challenges affect both the productivity of farming and the financial sustainability of farmers' households.

1) Rising Costs of Fertilizers and Pesticides

One of the most pressing issues reported by farmers concerns the high cost of fertilizers and pesticides. Farmers repeatedly emphasized that although the government provides subsidized fertilizers, access to these subsidies is increasingly limited. Some farmers explained that only a few individuals on the recipient list are able to obtain subsidized fertilizers, while most must purchase fertilizers at market prices that have surged significantly. Furthermore, some villages are unable to access subsidies due to outstanding debts or administrative delays in the distribution process. Farmers also noted that the price of pesticides fluctuates unpredictably and that many are unable to afford the recommended quantities needed to effectively manage pest infestations. As a result, their harvests become more vulnerable to damage, leading to lower yields and income.

2) Price Instability and the Influence of Middlemen and Large Rice Mills

Another recurrent challenge relates to price instability. Farmers explained that they have little to no influence over the selling price of their crops. Large rice mills often controlled by powerful market actors tend to dictate the base price for harvested rice. Small-scale middlemen then follow these price structures, providing farmers with little room to negotiate. The study found that middlemen frequently justify lowering prices by citing factors such as extreme weather or widespread harvest seasons, although farmers indicated that such explanations are often not aligned with the actual conditions. Farmers perceive these reasons as strategies used by middlemen to depress prices and increase their profit margins.

The disparity between farm-gate prices (Rp. 6,000–6,500 per kilogram) and market retail prices (Rp. 15,000–17,000 per kilogram) demonstrates a highly unequal distribution of profits across the supply chain. This structural imbalance contributes significantly to farmers' financial hardships and reinforces a cycle of poverty in rural areas. The findings suggest that such wide price gaps create deep frustration among farmers, diminishing their motivation to remain in agriculture.

3) Inadequate Irrigation Infrastructure

An additional challenge concerns the uneven distribution of irrigation water. Many farmers reported that irrigation channels in their village do not function properly, especially during the dry season. Water allocation policies implemented by the village government also appear inconsistent, with priority given to certain areas while others remain neglected. These conditions make irrigation unreliable and unpredictable, causing farmers to experience difficulties in

maintaining crop health. Poor irrigation reduces yields and, in some cases, contributes to crop failure. Farmers expressed concerns that although they have brought the issue to the attention of local authorities, improvements have been slow and insufficient.

4) Pest Attacks and Declining Production

Pest infestations continue to pose serious threats to the productivity of rice fields. Farmers noted that when pests spread uncontrollably especially during certain seasons the damage can significantly reduce harvest quantities. The inability to purchase effective pesticides due to rising prices worsens the problem, placing farmers in an increasingly vulnerable position. Some farmers stated that despite their best efforts, pest outbreaks remain difficult to anticipate, resulting in substantial financial losses.

5) Competition Between Traditional and Modern Farming

The findings also highlight a widening gap between traditional farmers and those who have adopted modern technologies. Farmers using traditional methods rely heavily on manual labor during planting and harvesting, whereas modern farmers utilize machines such as mechanical harvesters and rice transplanters. These machines greatly reduce the time and workforce needed, enabling modern farmers to achieve higher productivity and lower labor costs. Traditional farmers, who lack access to such equipment, struggle to compete. Many expressed concerns that mechanization has reduced opportunities for agricultural laborers, potentially increasing unemployment in rural areas. Additionally, the use of heavy machinery has raised environmental concerns, including potential soil compaction and reduced land fertility.

Patterns of Relationship Between Farmers, Middlemen, and Traders

The findings reveal a deeply rooted relationship between farmers and middlemen, shaped by longstanding economic dependencies. Middlemen provide essential financial support for farming activities, offering loans with flexible repayment terms. However, these loans come with the condition that farmers must sell their harvests exclusively to the lending middleman. Middlemen hold significant control over the marketing chain, as they possess connections to traders and rice mills that farmers do not have access to. This gives middlemen substantial power to determine prices and terms of trade. Farmers repeatedly indicated that their limited market access forces them to depend on middlemen for both capital and sales channels. Even in cases where harvested rice is of low quality, middlemen remain willing to purchase it something that rice mills often refuse to do. This reliability strengthens farmers' dependence, even when the prices offered are unfairly low. Some farmers with better financial resources manage to avoid middlemen, selling their rice directly to mills. However, only a small number of farmers fall into this category, and most continue to rely on middlemen for both capital and marketing. These relationships reflect a patron–client dynamic in which farmers, due to their vulnerable economic position, must adhere to the rules imposed by middlemen.

Traditional Farming, Modernization, and Digitalization

The study found that both traditional and modern farming practices continue to coexist in Serdang Bedagai. Traditional farming relies on human labor, manual planting, and manual harvesting. Farmers noted that while traditional methods are slower and less efficient, they continue to employ local workers, helping to reduce unemployment in the village. Modern farming, on the other hand, incorporates advanced technologies that significantly accelerate agricultural work. Machines used for

planting and harvesting not only save time but also increase overall productivity. However, the shift toward mechanization has reduced the need for manual labor, which has implications for local livelihoods. Farmers also expressed environmental concerns associated with machinery use, including potential land degradation and the loss of natural soil structure. Some villagers reported that machine-based planting and harvesting activities have already caused soil erosion and waterlogging in specific areas. Despite these concerns, farmers recognized that modern technologies have the potential to increase yields and reduce physical labor demands. Nonetheless, access to such technologies remains limited to wealthier farmers, reinforcing inequality within the farming community.

Farmers' Solutions and Expectations for the Agricultural Future

Farmers offered a range of perspectives regarding solutions to the challenges they face. Many emphasized the need for government intervention to reduce the dominance of middlemen. They argued that the government should facilitate direct access to markets, allowing farmers to sell their harvests at fair prices without intermediaries. Improvements in irrigation infrastructure were also mentioned as a crucial need. Farmers expressed hope that the government would prioritize repairing and upgrading irrigation channels to ensure consistent water supply throughout the year. Additionally, farmers identified modern agricultural training as a key factor for improving their productivity. They hoped for more comprehensive access to agricultural education and environmentally friendly technologies. Farmers widely viewed price stability as essential for economic security. They stressed that unpredictable prices create uncertainty and prevent long-term financial planning. Therefore, government-regulated price controls were seen as an important mechanism for protecting vulnerable farming households. Overall, farmers envision a future in which agricultural work is both profitable and dignified, where modern technologies support rather than replace local labor, and where the market system operates fairly and transparently.

Discussion

This study exposes a multifaceted and mutually reinforcing set of structural conditions that constrain farmers' economic agency in Serdang Bedagai. At the empirical core lie three interlinked phenomena: entrenched dependency on middlemen for credit and market access, severe price asymmetry along the value chain, and technological/infrastructural disparities that differentially affect farmers' capacity to capture value from production. Rather than isolated obstacles, these phenomena operate together to produce durable economic vulnerability for the majority of smallholders. The significance of these outcomes is best understood not as mere description of hardship but as evidence of a systemic configuration in which market structure, institutional practice, and resource distribution interact to reproduce agrarian precarity.

Interpreting these patterns requires moving beyond the simple observation that farmers "sell cheaply" and toward an analysis of the constraints that make such transactions rational choices for those involved. The present data show that selling to middlemen is not primarily a matter of convenience or custom; it is a survival strategy under conditions of credit dependency, perishability, and limited market connectivity. This interpretation aligns with and extends the findings reported by Qariska (2021) and Suhartatik (2022). Qariska documents the patron–client form of dependency in paddy systems, emphasizing the role of informal credit in binding producers to particular buyers. In Serdang Bedagai, however, the credit relation appears more acute: credit is not only a mechanism of preference formation but often the only viable financing route for seasonal production. Where Qariska highlights reciprocal obligations within patronage ties, the present study suggests that reciprocity has been displaced by compulsion—farmers accept unfavorable terms not out of loyalty but out of necessity because alternative channels of finance and sale are structurally inaccessible. Suhartatik's examination of decision factors in farmers' sale behavior is useful here because it identifies

immediacy, liquidity needs, and transaction costs as proximate determinants; our findings show these proximate determinants are themselves produced by deeper institutional deficits (limited formal credit, weak transport/market infrastructure) that Suhartatik's model treats as background conditions.

The observed price gap farm gate prices that are a small fraction of retail prices serves as a clear indicator of value capture by downstream actors. Agustina et al. (2024) emphasize how middlemen extract margins through informational asymmetries and control over market channels; our study corroborates this mechanism while foregrounding the infrastructural and regulatory enablers of such capture. Specifically, where Agustina et al. attribute middlemen's leverage mainly to market information and capital concentration, our data indicate that inadequate irrigation, poor road access, and irregular subsidy distribution amplify middlemen's gatekeeping role. Middlemen do not merely opportunistically exploit information gaps; they benefit from and reinforce a configuration of weak public provisioning that leaves farmers dependent on private intermediaries for timely sale, transportation, and liquidity. In short, the extraction observed by Agustina et al. is embedded in an ecology of neglect in which both market failures and public policy gaps are complicit.

Rising input costs particularly for fertilizers and pesticides further compound farmers' precarity. Sudiarti (2022) quantitatively establishes the negative impact of increased pesticide and fertilizer expenditures on farm income; the present research supplements that quantitative relationship with processual accounts showing how subsidy limitations, administrative irregularities, and market shortages translate price increases into production fragility. Farmers' narratives reveal a "double squeeze": they face escalating costs on the input side while receiving depressed prices on the output side. This dual pressure not only reduces net returns but also undermines farmers' capacity to invest in productivity enhancing inputs, thereby perpetuating a low-investment equilibrium. That Sudiarti's findings on cost sensitivity resonate with the present study strengthens the inference that input policy is a critical leverage point without addressing input affordability and distribution, efforts to improve market access will have limited effect because farmers may still be forced to sell at once to meet the immediate expense of planting and pest control.

Technological differentiation between traditional and modern farmers emerges as a focal axis of inequality. While mechanization and modern inputs increase efficiency for those who can adopt them, they also intensify relative deprivation for those who cannot. The data show that mechanized producers obtain time and labor advantages, capture economies of scale, and are better positioned in negotiating with buyers; conversely, traditional producers face escalating labor costs, slower turnover, and thus greater exposure to perishability and price volatility. This unequal adoption dynamic has two pernicious consequences: first, it increases income stratification within rural communities; second, it has ambiguous social effects mechanization may raise aggregate productivity but simultaneously reduce rural labor demand, generating unemployment pressures and social dislocation. Unlike studies that treat modernization as an unalloyed good, our findings urge caution: technological diffusion without inclusive access programs risks deepening structural inequities.

Institutional shortcomings visible in inconsistent irrigation governance, poorly administered subsidies, and weak local regulatory oversight of market practices function as critical multipliers of vulnerability. Local-level administrative failures in water allocation reduce agronomic resilience to climatic variability, while subsidy fragmentation and arrears curtail farmers' purchasing power for inputs. Moreover, the absence of effective market regulation enables price manipulation by middlemen with little accountability. Taken together, these governance deficits suggest that piecemeal interventions (e.g., one-off inputs or training) are likely to be insufficient. Instead, policies must integrate market, credit, and infrastructural interventions to address the compound nature of farmer vulnerability.

From a comparative perspective with the four referenced studies, the present research both confirms established insights and refines them by illuminating interdependencies. Qariska's and Agustina et al.'s descriptions of patronage and marketing power are empirically affirmed but here are shown to be sustained by infrastructural and fiscal failures; Suhartatik's behavioral determinants of sale decisions are validated but repositioned as responses to structural constraints; Sudiarti's

quantification of cost–income relations is substantiated while the administrative causes of cost escalation are made explicit. Thus the present study contributes by synthesizing these strands into a systemic account: the agrarian economy of Serdang Bedagai is characterized by mutually reinforcing market asymmetries, input-price pressures, and institutional fragilities that together limit farmers' capacity for economic mobility.

Policy implications follow directly from this synthesis. Efforts to strengthen farmers' welfare must be multidimensional: expanding access to affordable formal credit (and designing tailored micro-credit for seasonal production), ensuring transparent and equitable subsidy distribution, investing in irrigation and transport infrastructure, and promoting market institutions (e.g., cooperatives, digital marketplaces) that reduce dependency on single middlemen. Importantly, technological dissemination programs should be coupled with financing mechanisms and training to avoid exacerbating inequality. Regulatory measures to increase price transparency along the value chain such as publicized daily reference prices and support for collective marketing could reduce opportunistic price suppression. Finally, village level governance reforms to professionalize water management and input distribution would address some of the administrative root causes identified.

For research, these findings indicate several priorities. First, longitudinal studies tracking households across multiple cropping cycles would better capture the dynamics of debt accumulation and mobility. Second, experimental or quasi-experimental interventions credit pilots, cooperative formation, or digital market platforms should be rigorously evaluated to identify which policy mixes yield sustainable gains. Third, an applied political-economy analysis of local governance structures would clarify how subsidy and irrigation distributions are administratively captured and how such capture might be reformed. Fourth, ecological assessments of mechanization's long-term soil impacts are necessary to ensure sustainability.

In sum, the present research moves beyond documenting the existence of middlemen-based dependency toward explicating the systemic assemblage that reproduces it. The convergence of market asymmetry, input cost inflation, technological divergence, and institutional weakness creates a durable trap for many smallholders. Addressing this trap requires coordinated policy action that treats infrastructure, finance, market institutions, and governance as interdependent components of an integrated rural development strategy.

4. CONCLUSION

The primary objective of this research was to explore the economic dynamics of farmers and the role of middlemen within the agricultural system in Serdang Bedagai through a qualitative case study approach. The findings revealed that farmers face multidimensional constraints, including structural dependency on middlemen for credit and market access, severe price asymmetry across the value chain, rising production costs, unequal access to modern agricultural technology, and persistent infrastructural and institutional shortcomings. These results lead to the conclusion that farmers' economic vulnerability is not merely a consequence of individual choices but is shaped by systemic forces that reinforce a cycle of dependency and limited mobility. The study contributes theoretically by extending patron–client and agrarian political economy perspectives through demonstrating how market, institutional, and infrastructural factors interact to reproduce agrarian precarity. Practically, the findings provide insight for policymakers to design integrated interventions focused on strengthening credit systems, improving irrigation and market access, ensuring transparent input distribution, and promoting inclusive technological transition. However, this study is limited by its localized scope and reliance on cross-sectional data, which may not fully capture long-term economic fluctuations or variations across different agricultural regions. Future research should incorporate

longitudinal designs, comparative multi-site analyses, and evaluations of policy or technological interventions to deepen understanding of how structural reforms may effectively reduce dependency and enhance farmer welfare.

5. REFERENCES

Handoko, D. K. D., Fitriyana, F., & Susilo, H. (2022). Karakteristik sosial ekonomi hubungan patron-klien pada masyarakat nelayan purse seine di Kelurahan Berbas Pantai Kecamatan Bontang Selatan Kota Bontang. *Jurnal Perikanan Unram, 12*(3), 408–417. https://doi.org/10.29303/jp.v12i3.347

Marsitadewi, K. E., Sudemen, W., & Warmadewa, U. (n.d.). *Kemiskinan struktural di Karangasem: Menganalisis penyebab dan intervensi pemerintah.*

Suleman, O. A., Pratiknjo, M. H., & Sandiah, N. (n.d.). Kemiskinan struktural dan hubungan patron-klien nelayan di Desa Maitara Kecamatan Tidore Utara Kota Tidore Kepulauan. *Jurnal Holistik, 12*(2).

Thomas, O. A., Man, S., & Agostinho, J. A. (2023). *Transformasi ekonomi subsisten ke model ekonomi kerakyatan di Timor Leste*.

Ulum Rusydi, B., Ulfa, M., & Ekonomi dan Bisnis Islam, F. (n.d.). Hubungan patron-klien pada komunitas nelayan dalam kerangka ekonomi Islam. *Journal of Islamic Economic Law,* (Volume dan nomor tidak tersedia). http://ejournal-iainpalopo.ac.id/alamwal

Yudiarini, N. (n.d.). *Perubahan pertanian subsisten tradisional ke pertanian komersial, 2*(1).