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Analysis of Strategies to Increase Shallot Farmers' Income Through Business Diversification in Lambanan Village, Balanipa District, Polewali Mandar Regency

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Abstract: This study aims to analyze business diversification strategies in increasing the income of shallot farmers in Lambanan Village, Balanipa District, Polewali Mandar Regency, as well as the supporting and inhibiting factors affecting their implementation. This topic is important because shallot farmers face unstable income due to price fluctuations and production risks, which may affect household economic sustainability. This study employed a qualitative case study approach through direct observation and in-depth interviews with shallot farmers. The findings show that farmers implement three forms of diversification, namely horizontal diversification, vertical diversification, and off-farm diversification. Supporting factors include agricultural extension services and the availability of family labor, which facilitate the implementation of diversified business activities. In contrast, limited capital and high production costs constitute the main constraints to diversification. The study concludes that business diversification plays an important role in stabilizing shallot farmers' income by providing alternative sources of economic returns and reducing dependence on a single agricultural activity. These findings highlight the importance of strengthening farmers' access to capital, extension support, and productive resources to enhance the sustainability of diversification strategies.

Keywords: Business Diversification, Farmers' Income, Shallot Farmers

1. Introduction

Agriculture plays an important role in the Indonesian economy, not only as a provider of food for more than 270 million people but also as a major source of livelihood for communities in rural areas. Among the various agricultural commodities cultivated in Indonesia, shallots represent a strategic commodity because they function not only as an essential cooking ingredient but also have implications for national economic stability. Shallots are an important food commodity that can influence inflation; consequently, changes in shallot prices or supply may affect household purchasing power and overall price stability (Alfiyah & Sugiarti, 2023). Therefore, the government and relevant stakeholders continue to monitor and regulate the shallot trade and distribution system. At the national level, Indonesia has demonstrated progress in shallot production. The country has achieved self-sufficiency in this commodity, as indicated by the *Self-Sufficiency Ratio* (SSR), which consistently remained above 100% during 2019–2023, ranging from 100.07% to 100.54% (Pusat Data dan Sistem, 2024). The indicators of national shallot self-sufficiency and import dependence are presented in Table 1.

Table 1. Indicators of Shallot Self-Sufficiency and Import Dependence in Indonesia, 2019–2023

Indicator	Period / Year	Value	Description
Self-Sufficiency Ratio (SSR)	2019–2023	100.07%–100.54%	Consistently above 100%, indicating that self-sufficiency has been achieved.
Import Dependency Ratio (IDR)	2023	0.05%	Very low level of import dependence.

Source: Pusat Data dan Sistem Informasi Pertanian, 2024

However, behind this achievement at the national level lies an important issue when the analysis is shifted to the micro level, particularly to farming households. Macroeconomic stability supported by shallot self-sufficiency does not necessarily translate into economic security and welfare for farmers.

Shallot farmers, who are at the forefront of maintaining national supply, continue to operate in an environment characterized by considerable risks and uncertainty.

Shallot prices at both producer and consumer levels can fluctuate substantially within relatively short periods. For example, the domestic consumer price reached Rp 61,950 per kilogram in July 2022 and, under scarcity conditions caused by crop failure, prices could increase to more than Rp 70,000 per kilogram (Annisa & Agustina, 2024). Conversely, during the main harvest season, abundant supply may reduce farm-gate prices to levels that are economically unfavorable to farmers. Such fluctuations are frequently associated with seasonal patterns, in which prices tend to decline during simultaneous harvesting periods and increase sharply before religious holidays as demand rises. Farmers' vulnerability to price volatility is further intensified by the high production risks associated with shallot cultivation. As a horticultural crop, shallots are highly sensitive to weather and climate variability. Prolonged rainy seasons may cause flooding and increase the incidence of bulb rot, whereas extreme dry seasons may restrict plant growth because of water scarcity (Aminah et al., 2022). Weather-related crop failure represents a substantial threat that can eliminate farmers' potential income within a single planting cycle (Radio Republik Indonesia, 2023).

In addition, the prevailing market structure may place farmers in a disadvantaged bargaining position. Previous research indicates that price fluctuations at the consumer level are greater than those at the producer level, suggesting the existence of market asymmetry and the potential abuse of market power by intermediaries (Nugroho & Must-ofa, 2024). This condition allows a greater proportion of the profit margin to be captured by intermediaries, while farmers continue to face limited bargaining power. These conditions reveal a fundamental gap: national self-sufficiency has not fully protected shallot farmers from substantial economic risks. The core problem faced by farmers is therefore not a lack of aggregate production capacity, but rather inefficiencies within the production cycle and supply chain (Nugroho & Must-ofa, 2024). Dependence on seasonal cropping patterns, vulnerability to climate shocks, and an unequal market structure contribute to persistent income uncertainty.

Consequently, agricultural policies and empowerment strategies should not focus exclusively on increasing productivity. Greater attention is required toward strengthening economic resilience at the household level through risk management and income stabilization (Widiati & Septianingsih, 2024). For farmers whose livelihoods depend heavily on a single commodity, diversification can provide a strategic mechanism for reducing vulnerability and creating alternative sources of income. In the agricultural and development economics literature, farm business diversification is recognized as an approach for managing risks and stabilizing income (Widiati & Septianingsih, 2024; Jayaputra et al., 2021). Conceptually, diversification refers to the process of developing different types of agricultural businesses or crops to reduce dependence on a single agricultural output. By distributing economic activities across several sources of income, farmers may reduce their exposure to the production and price risks associated with a single commodity.

Empirical studies in different regions of Indonesia have demonstrated the potential of diversification to strengthen farmers' economic conditions. For example, research on maize farmers in Bone Bolango Regency found that intercropping maize with cayenne pepper generated significant additional income outside the maize harvest season, although farmers continued to face fluctuations in chili prices (Amin et al., 2024). Another example is the diversification of oil palm plantations with sugar palm in Riau Province. Financial analysis demonstrated that this diversification model was economically feasible and resilient to external shocks, including a 31.58% increase in fertilizer prices and a 15.07% decline in fresh fruit bunch prices (Putri et al., 2022). These findings demonstrate that diversification can function not only as an additional income-generating mechanism but also as a strategy for improving farmers' resilience to market and production shocks. At the regional level, Balanipa District, where Lambanan Village is located, plays an important role in shallot production in Polewali Mandar Regency. Balanipa is one of the three major shallot-producing districts in the regency. Shallot production data for 2023 are presented in Table 2.

Table 2. Shallot Production in Major Producing Districts of Polewali Mandar Regency, 2023

District	Production (Tons)	Percentage of Total Regency Production (%)
Limboro	46.70	42.45%
Balanipa	30.80	28.00%
Tinambung	20.00	18.18%
Alu	12.50	11.37%
Total	**110.00**	**100%**

Source: BPS Polewali Mandar Regency, 2024

Table 2 shows that Balanipa District is the second-largest shallot-producing district in Polewali Mandar Regency, contributing 28.00% of total regency production. This production profile strengthens the relevance of Lambanan Village, which is located within Balanipa District, as the setting for examining farmers' economic conditions and diversification strategies. The economic dependence of the Lambanan Village community on shallot production is substantial. Previous research conducted in the village confirms that the majority of residents work as farmers and that shallots constitute the primary commodity and the largest source of income for farming households (Arhim et al., 2024). This income is considered sufficient to support children's basic to secondary education, from kindergarten through senior high school or equivalent levels. However, the same study concluded that this income remains insufficient to adequately support housing needs, such as constructing or renovating houses into decent residences, and is explicitly considered insufficient to finance children's education at the university level (Arhim et al., 2024).

This condition indicates what may be described as a "volatile-income poverty trap." The problem experienced by farmers in Lambanan Village is not necessarily absolute poverty, because their basic daily needs can still be met. Rather, the central issue is economic stagnation resulting from unstable income (Arhim et al., 2024). Income derived from shallot production, which is highly volatile, may be sufficient to cover routine and short-term expenditures but does not provide farmers with sufficient opportunities to accumulate substantial capital or savings for large and long-term investments. Investments in essential assets, such as decent housing, and, more importantly, human capital through higher education for their children, therefore remain difficult to achieve. Limited access to higher education may subsequently restrict the next generation's opportunities to enter employment sectors that provide higher and more stable incomes. As a result, they may remain in the agricultural sector and inherit economic structures and vulnerabilities similar to those experienced by their parents. In this context, business diversification should not be viewed merely as a strategy for increasing nominal income. It can potentially serve as an instrument for breaking the cycle of income vulnerability by creating more stable and sustainable income streams.

The background above leads to the central problem addressed in this study: shallot farmers in Lambanan Village face a volatile-income poverty trap associated with their dependence on a single commodity. Although farm diversification is theoretically recognized as a potential strategy for addressing this vulnerability, there remains a gap between the theoretical potential of diversification and its empirical implementation in the study location. The specific diversification strategies actually adopted by shallot farmers, as well as the contextual factors that support or constrain their implementation, have not yet been clearly identified and systematically analyzed. Addressing this gap is therefore important for developing practical recommendations that are consistent with the socioeconomic conditions of farmers in Lambanan Village. Accordingly, this study aims to analyze the business diversification strategies implemented by shallot farmers in Lambanan Village, Balanipa District, Polewali Mandar Regency, particularly in relation to their role in increasing and stabilizing farmers' income. The study also identifies the supporting and inhibiting factors affecting the implementation of these diversification strategies. The findings are expected to contribute empirical evidence concerning farmer-level diversification practices and provide a basis for community

empowerment efforts aimed at strengthening household economic resilience and improving the sustainability of farmers' livelihoods.

2. Method

2.1 Research Design

This study employed a qualitative approach with a case study method. The qualitative approach was selected because the study aims to obtain an in-depth understanding of the business diversification strategies implemented by shallot farmers and the contextual factors influencing their implementation. A qualitative approach enables researchers to understand social phenomena from the participants' perspectives by using descriptive data in the form of words, narratives, observations, and visual documentation rather than numerical data. The case study method was considered appropriate because the research focuses on a specific phenomenon within its real-life context, namely the diversification strategies of shallot farmers in Lambanan Village, Balanipa District, Polewali Mandar Regency. The methodological process was designed to address the research objectives through several interconnected stages, beginning with field data collection, followed by data reduction, data presentation, interactive analysis, conclusion drawing and verification, and triangulation. The analytical process was conducted interactively throughout and after data collection to ensure that the findings accurately represented the conditions experienced by the research participants.

2.2 Research Focus

The study focuses on the business diversification strategies implemented by shallot farmers in Lambanan Village, Balanipa District, Polewali Mandar Regency, including the supporting and inhibiting factors affecting the implementation of these strategies. The analysis specifically examines the forms of diversification undertaken by farmers, their implementation in farming and other economic activities, and the factors that facilitate or constrain diversification. This focus is intended to provide an empirical understanding of how farmers respond to income instability, production risks, and dependence on shallot cultivation as their main source of livelihood.

2.3 Research Location and Period

The research was conducted in Lambanan Village, Balanipa District, Polewali Mandar Regency, West Sulawesi Province. The location was selected because shallot farming represents an important economic activity for the local community and farmers face economic challenges associated with dependence on agricultural commodities and fluctuations in agricultural income. The research was conducted for approximately two months, from January 10 to March 3. During this period, the researcher conducted field observations, interviews, documentation, data organization, analysis, and verification of the information obtained from research participants.

2.4 Data Types and Sources

The study used primary and secondary data to obtain comprehensive information concerning farmers' diversification strategies and the factors affecting their implementation.

2.4.1 Primary Data

Primary data were obtained directly from the field through direct observation and in-depth interviews with selected informants. Observation was conducted to examine farming activities, diversification practices, interactions among farmers, and marketing activities. In-depth interviews were conducted to explore information concerning diversification strategies, income conditions, and supporting and inhibiting factors.

2.4.2 Secondary Data

Secondary data were obtained through documentary studies and relevant literature. These data included shallot production statistics from the Central Statistics Agency (BPS), the Lambanan Village monograph, reports from the Agricultural Office, scientific journal articles, and previous studies relevant to shallot farming and business diversification. The combination of primary and secondary data was intended to strengthen the completeness of the information and provide contextual evidence for interpreting the findings obtained from the field.

2.5 Research Informants

In qualitative research, the concepts of population and sample are not applied in the same manner as in quantitative research. Instead, this study used informants who were selected using purposive sampling. Informants were selected based on their relevance to the research objectives and their ability to provide information concerning shallot farming and diversification activities.

2.5.1 Key Informants

The key informants consisted of four shallot farmers selected according to predetermined criteria and divided into two categories:

a. Farmers who cultivate only shallots and do not implement diversification strategies; and
b. Farmers who implement business diversification strategies.

This categorization allowed the study to obtain information from farmers with different economic and farming practices, thereby facilitating a more comprehensive understanding of diversification and the reasons for its implementation or non-implementation.

2.5.2 Supporting Informants

Supporting informants consisted of the Head of Lambanan Village, the local Agricultural Extension Officer (PPL), and agricultural produce collectors. Their involvement was intended to provide additional perspectives and facilitate cross-checking of information obtained from shallot farmers. The use of different categories of informants also supported the verification process by allowing information concerning farming practices, diversification, agricultural extension, production conditions, and marketing activities to be compared across sources.

2.6 Data Collection Techniques

Data were collected through observation, in-depth interviews, and documentation.

2.6.1 Observation

Direct field observation was conducted to examine the actual conditions of shallot farming and the economic activities undertaken by farmers. The observation focused on cultivation processes, diversification activities, interactions within farmer groups, and marketing processes. Observation enabled the researcher to compare the information provided by informants with the conditions observed directly in the field.

2.6.2 In-Depth Interviews

Semi-structured in-depth interviews were conducted using an interview guide. This technique provided sufficient structure to ensure that all research topics were addressed while allowing the researcher to explore relevant information that emerged during the interviews. The interviews focused on farmers' diversification strategies, income conditions, types of economic activities, and supporting and inhibiting factors. Interviews with supporting informants were also used to obtain additional information concerning agricultural extension, village conditions, and the marketing of agricultural products.

2.6.3 Documentation

Documentation was used to complement information obtained through observation and interviews. The documentation included relevant farming records, photographs of research activities, and documents obtained from the village government and relevant agricultural agencies. Documentary evidence was used to strengthen the interpretation and verification of field findings.

2.7 Data Analysis Method

Data analysis employed the interactive analysis model of Miles, Huberman, and Saldaña, which consists of three interconnected analytical stages: data reduction, data presentation, and conclusion drawing/verification. The process was conducted interactively during and after data collection.

2.7.1 Data Reduction

Data reduction involved summarizing, selecting, organizing, and focusing the raw data obtained from observations and interviews. At this stage, information that was relevant to the research objectives was identified and organized according to the main themes of the study. The data were assigned codes based on the research themes, including types of business diversification, income conditions, supporting factors, inhibiting factors, farming activities, and marketing activities. This process enabled the researcher to organize extensive field information into a more manageable form while retaining information relevant to the research questions.

2.7.2 Data Presentation

The reduced data were presented in the form of narrative descriptions, matrices, and diagrams. Narrative descriptions were used to explain the experiences and practices of informants, while matrices and diagrams were used to identify patterns, similarities, differences, and relationships among the data. This stage facilitated the interpretation of diversification practices and the identification of the factors supporting or constraining their implementation.

2.7.3 Conclusion Drawing and Verification

The final stage involved drawing preliminary conclusions from the patterns identified in the data. These conclusions were continuously verified against field evidence throughout the research process. Verification was conducted to ensure that the conclusions remained consistent with the information obtained from observations, interviews, and documentation. The process continued until the researcher obtained sufficiently credible findings to answer the research questions concerning the diversification strategies of shallot farmers and their supporting and inhibiting factors.

2.7.4 Interactive Analysis Process

The three stages of analysis were not conducted in a strictly linear sequence. Instead, they operated interactively, particularly during the conclusion-drawing and verification stages. When contradictory information or differences in perceptions were identified, the researcher returned to the relevant data and conducted additional verification. For example, when differences emerged between information provided by farmers and the Agricultural Extension Officer (PPL), the researcher compared the respective statements with field observations and documentary evidence. This process ensured that conclusions were based on verified information rather than on a single source of evidence.

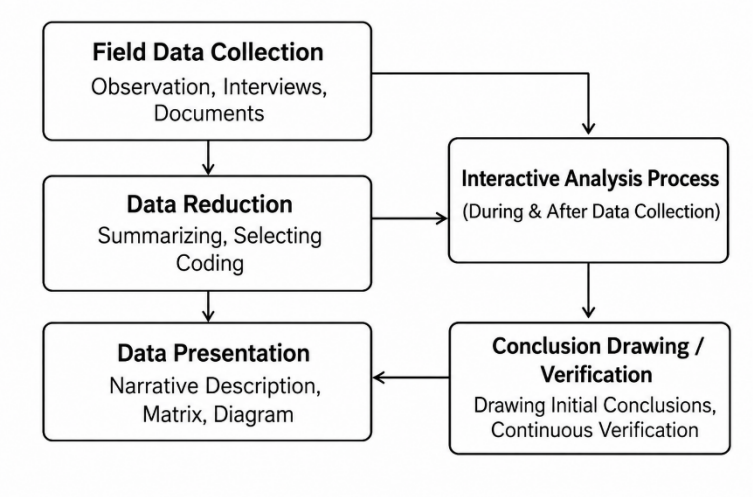


Figure 1. Interactive Data Analysis Model

2.8 Data Validity and Triangulation

The interactive analysis process was also used as a framework for ensuring the validity and credibility of the research findings. Data validity was established through triangulation, which was conducted by comparing information obtained from different sources and through different data collection techniques. Two types of triangulation were applied:

2.8.1 Source Triangulation

Source triangulation was conducted by comparing information obtained from different informants. Information provided by shallot farmers was cross-checked with information obtained from the Agricultural Extension Officer (PPL), Head of Lambanan Village, and agricultural produce collectors. This process was intended to identify consistency and differences in perceptions concerning diversification practices, production conditions, agricultural support, and marketing activities.

2.8.2 Technique Triangulation

Technique triangulation was conducted by comparing information obtained through in-depth interviews, direct field observations, and documentation. Information obtained through interviews was compared with actual field conditions and available documentary evidence. Data that remained consistent after the triangulation process were used as the basis for developing credible research conclusions.

2.9 Indicators of Research Achievement

In accordance with the qualitative nature of the study, research achievement was assessed descriptively through the depth, consistency, and credibility of the information obtained from the field rather than through numerical measurement. The achievement indicators included:

a. Identification of business diversification strategies, demonstrated by the identification and description of diversification practices implemented by shallot farmers.
b. Identification of supporting factors, demonstrated by the identification of factors that facilitate farmers' implementation of diversification strategies.
c. Identification of inhibiting factors, demonstrated by the identification of constraints experienced by farmers in implementing diversification activities.
d. Consistency of information, assessed by comparing information among different informants through source triangulation.
e. Consistency across data collection techniques, assessed by comparing interview findings with observations and documentary evidence through technique triangulation.

f. Credibility of conclusions, assessed through continuous verification of findings during the interactive data analysis process.

Through these indicators, the research was designed to produce an empirically grounded description of diversification practices and their supporting and inhibiting factors among shallot farmers in Lambanan Village. The results of the analysis subsequently provide the basis for formulating practical recommendations relevant to strengthening farmers' income stability and economic resilience.

3. Results and Discussions

3.1 Results

Based on interviews conducted with several shallot farmers in Lambanan Village, Balanipa District, Polewali Mandar Regency, it was found that farmers implement various strategies to maintain the stability of their household income. These strategies are implemented as a form of adaptation to fluctuations in shallot prices and production risks that frequently occur due to unpredictable weather conditions. One of the strategies implemented by farmers is business diversification through the cultivation of commodities other than shallots. This diversification aims to reduce dependence on a single commodity and provide additional sources of income for farming households.

Table 3. Diversification Strategies and Supporting and Inhibiting Factors

Informant	Diversification Strategy	Supporting Factors	Inhibiting Factors
MR	Maize, mung beans, livestock	Economic needs	Limited capital
BI	Maize, foxtail millet	Unstable prices	High production costs
SI	No diversification	-	Limited capital
SA	No diversification	-	Limited capital

Source: Research data

One of the informants, Mahfud Radi, explained that in addition to cultivating shallots, he also grows other crops such as foxtail millet, maize, Mandar shallots, and mung beans. Usually, one of these crops is planted simultaneously on different plots of land or after the shallot harvest has been completed so that the land can continue to be utilized optimally.

He stated:

"Yes, there is. In addition to shallots, I sometimes also plant maize, mung beans, foxtail millet, and Mandar shallots. One of these crops is usually planted together with shallots using an intercropping system or sometimes on different plots of land, so that when the shallots fail, at least I still have an income, even though the price is lower than the price of shallots. I also raise chickens and goats." (Mahfud Radi, Farmer, I Line 7).

According to him, the business diversification strategy is implemented because shallot prices frequently fluctuate, causing farmers' incomes to be unstable.

"If I only rely on shallots, sometimes it is not enough. Shallot prices often go up and down. Therefore, by planting other crops, at least there is additional income." (Mahfud Radi, Farmer, I Line 11).

The same view was expressed by the informant Bapak Ila, who has been a shallot farmer for a long time. He explained that in addition to shallots, he also grows maize and foxtail millet as additional crops.

"In addition to shallots, I usually plant maize or foxtail millet. I plant them together with shallots on different plots of land so that when the shallots fail, at least I still have an income, even though the price is lower than the price of shallots. At least I still have some income rather than having nothing at all. Or, when there is a crop failure, I do not immediately plant shallots again. I usually replace them first with other crops such as foxtail millet and maize." (Bapak Ila, Farmer, I Line 7).

According to him, the presence of other crops can help meet household needs when shallot production is insufficient.

"The income from maize or foxtail millet is indeed not very large, but it still provides additional income. At

least, it can help meet daily needs." (Bapak Ila, Farmer, I Line 15).

However, not all farmers undertake business diversification. Some farmers still choose to focus on a single commodity, namely shallots. This is caused by limited capital and farmers' established familiarity with shallot cultivation.

The informant Sunardi explained that he preferred to focus on shallots because of limited capital and his greater experience with this commodity.

"I focus more on shallots. One of the reasons is that the capital I have is limited, and I understand how to grow shallots better than other crops." (Sunardi, Farmer, I Line 10).

A similar opinion was expressed by the informant Samad, who stated that limited capital was one of the reasons why he did not undertake business diversification.

"I feel that I understand better how to grow shallots, and the available capital is more sufficient if it is used for only one type of crop." (Samad, Farmer, I Line 11).

Based on these interviews, it can be concluded that the business diversification strategies implemented by some farmers in Lambanan Village include cultivating other crops such as foxtail millet, maize, and mung beans, as well as raising chickens and goats as additional sources of income outside their main business activity, namely shallot farming.

a. Supporting Factors for Business Diversification

Based on the field research findings, several factors support farmers in undertaking business diversification. One supporting factor is the assistance provided by agricultural extension officers, who provide farmers with guidance concerning cultivation techniques and farming business development.

This was conveyed by Urwa, an Agricultural Extension Officer, who stated:

"We provide farmers with extension services concerning proper cultivation techniques, appropriate planting patterns, and encourage farmers to try other businesses that are still related to agriculture." (Pak Ali, PPL, I Line 11).

In addition, the village government provides support to farmers through cooperation with the Agricultural Office in the form of seed assistance and training for farmers.

This was conveyed by Herman, the Head of Lambanan Village, who stated:

"The village government usually cooperates with the Agricultural Office to provide assistance such as seeds, agricultural training, and extension services to farmers." (Herman, Village Head, I Line 13).

In addition to support from the government and agricultural extension officers, another factor encouraging farmers to undertake business diversification is unstable market conditions.

According to the informant Kursiana, who works as a shallot trader, fluctuations in shallot prices frequently affect farmers' incomes.

"When the price of shallots decreases, farmers' incomes also decline. Therefore, some farmers try to plant other crops so that they can continue to have an income." (Kursiana, Trader, I Line 8).

b. Inhibiting Factors of Business Diversification

In addition to supporting factors, there are also several factors that hinder the implementation of business diversification by shallot farmers in Lambanan Village.

One of the main inhibiting factors is the limited capital available to farmers. Capital is an important factor in developing farming businesses as well as in implementing business diversification.

This was stated by the informant Mahfud Radi:

"Usually, the problem is capital and agricultural costs, which are becoming increasingly expensive. Fertilizer prices also continue to increase." (Mahfud Radi, Farmer, I Line 19).

In addition to limited capital, high production costs also constitute a constraint for farmers in developing their farming businesses. This was stated by the informant Bapak Ila:

"The problem is usually the increasingly expensive production costs, such as fertilizer and plant medicine." (Bapak Ila, Farmer, I Line 19).

Furthermore, unpredictable weather conditions also affect the success of shallot farming. *"If the rain lasts too long or the dry season is too long, the crops may not grow properly."* (Sunardi, Farmer, I Line 18).

Thus, it can be concluded that the main constraints faced by farmers in implementing business diversification are limited capital, high production costs, and unpredictable weather conditions.

3.2 Discussions

The research findings indicate that the economic conditions of shallot farmers in Lambanan Village continue to face the main problem of income instability. This instability is caused by two major factors, namely commodity price fluctuations and uncertainty in production outcomes due to unpredictable weather conditions. These conditions create a situation in which farmers do not have certainty regarding their income in each production cycle. This phenomenon is consistent with findings from various recent studies indicating that the agricultural sector, particularly horticultural commodities, involves high levels of both market and production risks (Annisa & Agustina, 2024; Aminah et al., 2022). In this context, farmers' incomes are influenced not only by production volume but also by market price dynamics, which can change considerably over short periods.

In response to these conditions, some farmers in Lambanan Village undertake business diversification as an economic adaptation strategy. Diversification is implemented through the cultivation of other commodities such as maize, foxtail millet, and mung beans, as well as additional activities such as livestock farming. This strategy demonstrates that farmers are no longer entirely dependent on a single main commodity but have begun to develop alternative sources of income. This finding reinforces previous research indicating that business diversification is one strategy that can strengthen the economic resilience of farming households. Diversification enables farmers to distribute risks so that when one business activity experiences losses, other sources of income remain available to support household needs (Widiati & Septianingsih, 2024; Febriza et al., 2023).

However, not all farmers undertake business diversification. The findings show that some farmers continue to focus on shallot cultivation. This decision is influenced by limited capital, limited experience with other types of commodities, and concerns about the risk of failure associated with new business activities. This condition indicates that farmers' economic behavior tends to be cautious and risk-averse. Farmers prefer to maintain businesses that they already understand, even though these businesses involve considerable risks, rather than attempt new activities with uncertain outcomes. This phenomenon is also identified in recent research indicating that farmers generally tend to be risk-averse in making economic decisions (Annisa & Agustina, 2024).

In addition to internal factors, the implementation of business diversification is also influenced by external factors. The findings indicate that support from agricultural extension officers and the village government is an important factor encouraging farmers to develop more diversified farming businesses. Agricultural extension officers play a role in providing information and knowledge concerning cultivation techniques and alternative business opportunities that farmers can develop. On the other hand, limited capital and high production costs constitute major barriers to the implementation of business diversification. Limited capital makes it difficult for farmers to experiment with new business activities, while high production costs increase the risk of losses. This condition indicates that farmers' ability to develop their businesses is determined not only by their willingness but also by the availability of resources at their disposal.

From a broader perspective, these findings indicate that farmers' livelihood strategies are strongly influenced by the various types of assets they possess, including financial capital, human capital, and social capital. Farmers who have better access to capital and information tend to have greater capacity to undertake business diversification than farmers with limited resources. Therefore, farm business diversification can be understood as an adaptive strategy that is not only intended to increase income but also to maintain the economic stability of farming households in the face of

uncertainty. This strategy is important for reducing dependence on a single commodity and strengthening farmers' long-term economic resilience.

4. Conclusion

4.1 Conclusion

Based on the findings and discussion concerning the strategies for increasing shallot farmers' income through business diversification in Lambanan Village, Balanipa District, Polewali Mandar Regency, the following conclusions can be drawn:

a. The main strategy employed by farmers to increase and stabilize their income is business diversification, which includes horizontal diversification and off-farm diversification.
   1) Horizontal diversification is implemented through intercropping and crop rotation systems, whereby farmers cultivate other commodities, such as maize, foxtail millet, and mung beans. These commodities may be cultivated simultaneously with shallots through an intercropping system, on separate plots of land, or after the shallot harvest.
   2) Meanwhile, off-farm diversification is carried out through activities outside farming, such as raising chickens and goats as additional sources of income. This strategy demonstrates that farmers are not solely oriented toward increasing income but also toward managing risks arising from price fluctuations and production uncertainty. Therefore, business diversification contributes to maintaining the economic stability of farming households.

b. The implementation of business diversification strategies is influenced by supporting and inhibiting factors that determine the success of their adoption. Supporting factors include the role of agricultural extension officers (PPL), support from the village government, and economic pressures arising from uncertainty in shallot prices. These factors strengthen farmers' capacity to adopt diversification strategies.

Meanwhile, the main inhibiting factors include limited capital, high production costs, and unpredictable weather conditions. In addition, internal constraints include limited knowledge and farmers' tendency or habitual preference to remain focused on their primary commodity. Thus, although business diversification has proven to be an effective strategy for increasing and stabilizing income, its implementation among farmers remains suboptimal and requires more comprehensive support.

4.2 Recommendation

Based on the findings of the study concerning strategies for increasing shallot farmers' income through business diversification in Lambanan Village, Balanipa District, Polewali Mandar Regency, several recommendations can be proposed as follows:

a. For the Regional Government

The regional government, particularly the Agriculture Office of Polewali Mandar Regency, is expected to strengthen support for farmers through empowerment programs focusing on strengthening farm business diversification. Such support can be provided through improved access to capital, assistance with agricultural production facilities, and technical training on the development of alternative commodities with economic value. In addition, the government is expected to strengthen the agricultural marketing system so that farmers are not solely dependent on a single commodity and have greater opportunities to obtain more stable income.

b. For Agricultural Extension Officers

Agricultural extension officers are expected to increase the intensity of assistance provided to farmers through more targeted extension activities concerning the importance of farm business diversification as a strategy for managing economic risks. Extension officers are also expected to provide information on cultivation techniques for various agricultural commodities that are suitable for the land

conditions in Lambanan Village, thereby enabling farmers to acquire sufficient knowledge to develop more diverse and productive farming enterprises.

c. For Farmers

Shallot farmers in Lambanan Village are expected to consider implementing business diversification more optimally by utilizing agricultural land to cultivate various commodities with economic potential in addition to shallots. Business diversification can serve as an effective strategy for reducing dependence on a single source of income and strengthening the economic resilience of farming households in dealing with price fluctuations and agricultural production risks.

d. For Future Researchers

Future research is expected to examine farm business diversification strategies in greater depth using a broader approach, for example, by quantitatively analyzing economic aspects such as comparing the income of farmers who implement diversification with that of farmers who do not diversify their farming businesses.

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