



Analysis of the Potential and Implementation of Risk Management in Sharia Financing for Shallot Farmers in Brebes Regency

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Abstract

Purpose – This study aims to analyze the potential of Islamic financing in the shallot farming sector in Brebes Regency, including the financing mechanisms and analysis applied, as well as the implementation of risk management by Islamic banks in distributing financing to shallot farmers.

Methodology – This study uses a qualitative method with a descriptive-exploratory approach to understand the phenomenon as it naturally emerges from informants. Data collection was conducted through semi-structured interviews with relevant parties, including the head of the shallot farmer group in Rengaspendawa village, the marketing department of Bank Syariah Indonesia KCP A Yani 1 Brebes, and the Mantri Tani (farmer advisor) at the Rengaspendawa village, Larangan Subdistrict Agricultural Extension Center.

Findings – This study shows that sharia financing has significant potential to support shallot farming in Brebes Regency due to the high capital requirements and the business feasibility. The financing mechanism applies the 5C principle with an emphasis on character and cash flow analysis, while risk management is carried out preventively, mitigatively, and through continuous monitoring. This approach is effective in minimizing financing risk and supporting the sustainability of farmers' businesses.

Implications– The results of this study emphasize the importance of developing Islamic financing schemes that are adaptive to seasonal patterns and agricultural risks in Brebes Regency, through strengthening risk management and collaboration between Islamic banks, farmers, and local governments to support sustainable access to capital.

Originality– This study contributes to the literature by empirically analyzing the integration of sharia financing and risk management in the shallot farming sector in Brebes Regency, emphasizing the seasonal and high-risk characteristics of farming businesses.

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1. Introduction

Shallots are a key horticultural commodity, and their production should be maximized, as they are considered strategic given their high domestic consumption index. Brebes Regency is one of the largest shallot-producing areas in Indonesia. The number of individual horticultural farming businesses growing red onions in Brebes Regency is 84,609 individual horticultural farming businesses growing red onions (BPS Brebes, 2024).

As the main national production center, Brebes Regency accounts for around 16% of Indonesia's total production. The local government also states that Brebes shallots contribute around 60% to Central Java Province's demand (Suprpto, 2024). Regional data shows that in 2024, Brebes shall produce 409,107 tons of shallots on a planting area of 26,628 hectares (BPS, 2024). There are indications of the economic potential of shallots and the planting area in Brebes Regency in 2019-2024, which show fluctuations but are dominated by positive growth.

Table 1. Shallot Production in Brebes Regency (Quintal) 2019-2024

Year	Area Planted with Shallots (Ha)	Red Onion Production (Ton)	Productivity (Ton/Ha)
2019	30.500	325.000	10,6
2020	31.200	350.000	11,2
2021	31.571	341.056	10,8
2022	32.571	384.448	11,8
2023	26.800	392.000	14,6
2024	26.628	409.107	15,4

Source: BPS (2024)

Based on field observations of shallot farmers in Brebes Regency, most farmers apply a cultivation pattern with two planting cycles per year. The main shallot cultivation cycle takes place during the dry season, with peak production from April to September, and an additional cycle during the rainy season from November to February. Based on field observations with shallot farmers, shallot cultivation on one hectare of land requires a capital of around Rp. 88 million to Rp. 100 million, which is used to purchase seeds, fertilizers, land management, pesticides, and labor costs from the preparation stage to harvest. In this area of land, shallot productivity ranges from 8 to 9 tons per hectare. Referring to the market price of IDR 20,000 per kilogram at the end of 2025, the total sales value that farmers can obtain ranges from IDR 160 million to IDR 180 million per planting season. A comparison of capital requirements with production and sales values indicates that shallot farming in Brebes Regency has considerable economic potential.

Despite its great economic potential, shallot farming still faces several relatively high risks. Based on research conducted by Putra et al. (2024) among 300 shallot farmers, it was found that production risk is one of the most significant risks in shallot farming. This risk is influenced by seasonal factors, pest and disease attacks, and price fluctuations. When facing these risks, especially during the off-season, farmers tend to increase the use of production inputs as a risk-mitigation measure. Increased use of pesticides, crop care, and labor increases the need for business capital. This condition shows that shallot farmers need additional capital, especially during the planting season with higher risk levels, so that the sustainability and productivity of farming businesses can be maintained (Putra et al., 2024).

Various studies show that Islamic financing has the potential to be an alternative solution in meeting additional capital needs in the agricultural sector, including shallot farming. Research in

Pakistan by Daud and Sharif (2024) states that Islamic financing can encourage the growth of financial institutions in the agricultural sector while expanding access to financing for farmers. In line with these findings, Irsyad et al. (2024) state that Islamic financial institutions have great potential to revolutionize agricultural financing. Further on, Aini and Kamilah (2025) identify several sharia financing schemes that align with the characteristics of farming businesses, such as akas Salam, Mudharabah, and Musyarakah, as well as the use of productive Waqf for infrastructure development and farmer empowerment. Therefore, sharia financing has the potential to be an additional source of sustainable capital for shallot farmers.

Agricultural financing needs adequate risk management to make it more bankable for small farmers. High risk perception, production volatility, and the incompatibility of financing schemes with the characteristics of farming businesses have resulted in a low share of agricultural credit (Irsyad et al., 2024). In line with this, Islamic banking tends to view the shallot farming business as a high-risk sector. In addition, Kurnaen et al. (2024) shows that onion farmers' interest in accessing sharia financing remains limited, influenced by perceptions of default risk. Overall, the analysis of the potential and implementation of risk management for sharia financing of shallot farmers in Brebes Regency is a highly relevant and important topic. This study is expected to make a significant contribution to the development of the shallot farming sector in the region and encourage the adoption of sharia financing as a sustainable solution.

Several previous studies have examined Islamic financing and risk management in the business and agricultural sectors. Lubis et al. (2025) studied risk mitigation in Islamic KUR financing in the MSME sector and found that financing risks still often occur in the post-disbursement stage due to misuse of funds and weak managerial capacity of customers. Aksamawanti (2024) shows that in Musyarakah financing in the agricultural sector, there are several dominant types of risk: financing, operational, and market. The study also emphasizes the importance of identifying, measuring, monitoring, and controlling risk in Sharia financing management. Furthermore, research by Azizi and Lubis (2025) in Murabahah financing for agricultural infrastructure, it was found that market risk due to crop failure is the most common risk in agricultural sector financing.

Another study conducted by Nurlaeli et al. (2021) in Brebes Regency, the role of Islamic financial institutions in supporting the agricultural sector is not yet optimal due to farming businesses' high dependence on natural factors and high production risks. Meanwhile, Maulana et al. (2023) developed a model for developing Islamic financing for the agricultural sector through the Soft System Methodology approach and produced several strategies for strengthening the Islamic-based agricultural financing system.

In addition, Nasution and Kamilah, (2025) emphasize that Islamic financial institutions make an important contribution to expanding access to capital and improving agricultural productivity, although challenges remain, including low financial literacy among farmers and fluctuations in agricultural commodity prices. Although various studies have discussed Islamic financing and risk mitigation in the business and agricultural sectors, most still focus on the MSME sector, Islamic cooperatives, or agricultural financing. Studies that specifically examine the potential of Islamic financing for certain agricultural commodities, especially shallots, are still relatively limited.

Most previous studies have focused on analyzing financing risks or the effectiveness of Islamic financial institutions in general, without examining in depth the economic potential of farming businesses and financing mechanisms aligned with farmers' characteristics at the local level. Therefore, this study makes a new contribution by analyzing the potential of Islamic financing for shallot farming businesses in Brebes Regency and examining the implementation of risk management in the distribution of such financing by Islamic banks.

This study analyzes the potential for sharia financing in the shallot farming sector in Brebes Regency, the mechanisms for providing sharia financing to shallot farmers, and the risk management practices of sharia banks in distributing such financing. This study aims to analyze the potential for Islamic financing in the shallot farming sector in Brebes Regency. In addition, this study aims to examine the mechanisms for providing Islamic financing to shallot farmers and to analyze the risk management practices applied by Islamic banks in channeling financing to the agricultural sector.

2. Literature Review

2.1 Business Feasibility Theory

Feasibility analysis is a study of the feasibility or otherwise of a business, conducted using several calculations (Amili et al., 2020). Meanwhile, explains that a feasibility study is a comprehensive assessment to evaluate the success of a project, and the purpose of a project feasibility study is to avoid excessive capital investment in activities that turn out to be unprofitable (Abubakar et al., 2022). Feasibility theory is an analysis of the potential for Sharia financing, as Sharia financial institutions assess a business's ability to become a sustainable financing object. Business feasibility analysis is an important stage in the assessment process because it determines whether the financing objectives, namely improving economic welfare and business sustainability, will be achieved by assessing the business's capabilities. Sharia financing decisions are not only based on the prospective debtor's ability to pay, but also on the feasibility of the business being financed, which includes financial, technical, and risk aspects (Rahmawati et al., 2024).

2.2 Potential for Sharia Financing

Islamic financing offers an opportunity to strengthen capital in Indonesia's agricultural sector. Islamic financing, with its principles that prioritize fairness, transparency, and sustainability, has great potential to encourage financing in the agricultural sector, which has so far had limited access. Sharia financial instruments, such as mudharabah and musyarakah, offer profit-sharing financing schemes that can provide solutions for farmers (Aini & Kamilah, 2025). Based on research by Rosianah et al., (Rosianah et al., 2025) It is also mentioned that murabahah financing can overcome the main problem faced by farmers, namely, limited access to capital.

Sharia financing can address the risks arising in the agricultural sector. Sharia financing schemes such as Salam, Istisna, Ijarah, Musyarakah, and Mudharabah have great potential for implementation because they are agriculture-based, interest-free, involve profit-and-loss-sharing partnerships, and provide goods suitable for farmers. Factors that determine the potential for Islamic financing in the agricultural sector include the characteristics of farming businesses, farmers' ability to meet financing requirements, farmers' level of Islamic financial literacy, and the readiness of Islamic financial institutions to serve a sector that is considered high risk (R. Maulana, 2025)

2.3 Risk

Law No. 21 of 2008, Article 35, concerning Islamic banking and UUS, stipulates that in conducting their business activities, they must apply the principle of prudence. Article 38, paragraph 1, states that Islamic banks and UUS must apply risk management, the principle of knowing their customers, and customer protection. Bank Indonesia regulations regulate the provisions referred to in paragraph 1. Article 39 states that Islamic banks and UUS must explain to customers the possibility of risks arising in Islamic banks and UUS (Akbar et al., 2022). The types of risks in Islamic banking include financing risk, market risk, liquidity risk, operational risk, legal risk, reputational risk, strategic risk, compliance risk, return risk, and investment risk. Risks arise due to problems in an action that can cause harm (Mauludin, 2020).

The shallot farming business has relatively high production potential and contributes significantly to farmers' income. However, cultivating this commodity is not without risks that can affect the business's sustainability. Putra et al. (2024) identified several categories of risk in shallot farming, namely production risk, price risk, financial risk, and operational risk. Production risks stem from the vulnerability of crops to pests and diseases, and from uncertain climatic conditions that can reduce the quantity and quality of harvests. Price risk arises from market price fluctuations beyond farmers' control, resulting in unstable business income. In addition, financial and operational risks are important factors affecting the efficiency of farm management, particularly regarding capital and the implementation of production and marketing activities (Putra et al., 2024).

2.4 Risk Management

Risk management is an effort to identify, analyze, and prevent failures in an institution's activities to improve effectiveness and efficiency (Suriyadi & Azmi, 2022). The main objective of risk management is to minimize losses and damage, and to ensure that the institution can manage risks efficiently without hindering innovation or the achievement of greater goals. Risk management is the process of systematically identifying, assessing, and managing risks, beginning with identifying their potential impact to plan and implement strategies to reduce or transfer those risks (Nuraini, 2025).

Risk management in Islamic banking must account for the risks faced by Islamic banks and implement appropriate risk mitigation measures to maintain competitiveness, profitability, and customer loyalty. Risk management in Islamic banking is inseparable from the policies and evaluations of the Board of Directors and Board of Commissioners (Lubis et al., 2024). Risk management in Islamic banking is not limited to the process of identifying and assessing potential risks, but also includes the implementation of adequate control mechanisms, continuous monitoring, and the formulation of anticipatory measures to deal with possible risks arising in financing operations (Mahardika et al., 2024).

2.5 Risk Mitigation

Mitigation is a series of actions taken to reduce or minimize the impact of a disaster on the community. According to Carter (1992), mitigation is an effort or activity aimed at reducing the impact of natural or man-made disasters on a nation or community. Risk mitigation is a measure taken to reduce the incidence or effects of a disaster (Fauzan et al., 2022). In risk management, risk mitigation is a planned and continuous action taken by the risk owner to reduce or minimize the impact of an event that has the potential to harm or endanger the risk owner (Nengsih, 2022).

According to Hermawan (2023) to gain confidence in future payments by debtors, it is recommended to use the minimum standard applied, namely the 5C principle, when analyzing the debtor's situation. A principle is an attitude considered good and used as a guideline for making decisions. Meanwhile, 5C is a form of mitigation used by banks to analyze and monitor financing applications from customers by looking at aspects such as character, capacity, capital, collateral, and the condition of the economy (Hamonangan, 2020).

Risk mitigation efforts are a strategic component of maintaining the sustainability of agricultural businesses vulnerable to various uncertainties. Within the framework of Islamic financing, risk management can be carried out through several preventive and empowering approaches. One form of intervention that Islamic Banking can carry out is to provide education and assistance programs for farmers, particularly related to strengthening their capacity in business risk management and the application of effective and sustainable cultivation practices (Lailiyah & Yahya, 2024).

2.6 Sharia Financing

Sharia financing is a type of financing based on Islamic law. In Islamic finance, transactions are conducted based on the principles of fairness, balance, and risk sharing between the lender and the borrower. Some of the instruments used in Islamic finance include mudharabah, musyarakah, murabahah, ijarah, and istishna. Each of these instruments has different characteristics, but their purpose remains the same, which is to support economic activities that are in accordance with Islamic principles (Anisah & Rokhaniyah, 2025). Sharia financing is a form of financing that operates in accordance with Sharia law. Several sharia financing products that can be applied in agribusiness include Mudharabah, Musyarakah, Murabahah, Bai'salam, Bai'istishna, and Rahn (Maulana et al., 2023).

Salam contracts can be a relevant alternative to Sharia financing because they provide capital funding at the beginning of the production period (Christy & Nisa, 2024). Salam contracts can help the agricultural sector with limited access to capital, commodity price volatility, and crop failure risks. Financing through Musyarakah contracts in the agricultural sector can also help improve the

quality and quantity of crop yields. The Musyarakah contract scheme was chosen because it allows for joint capital participation between financial institutions and farmers, so that the risk burden is not borne entirely by one party (Dianto, 2019).

Although Salam, Musyarakah, and Mudharabah contracts are conceptually relevant as alternatives for financing the agricultural sector, their implementation in Islamic banking practices in Indonesia is still relatively limited. In practice, agricultural financing primarily uses Murabahah (sale and purchase) and Ijarah contracts to support farmers' capital and production needs. It is believed that agricultural financing through Islamic banking can help farmers develop their agricultural businesses through the financing facilities provided by Islamic banks (Alan et al., 2023).

2.7 Shallot Farming

Shallots are among the strategic horticultural commodities in high demand throughout the year in Indonesia. Shallot cultivation has several specific characteristics that distinguish it from other agricultural commodities. In general, shallots are cultivated in open fields, either with or without mulch. In one planting season, it takes about 60-70 days from planting to harvest. Shallot farmers can usually plant 2-3 times a year, depending on climate conditions and water availability (Syarif, 2024). For seed requirements, shallot cultivation generally requires around 25-60 kg of seeds for each specific land area, depending on the planting distance and cultivation system used. The cost structure in shallot cultivation is dominated by variable costs, particularly in labor, seeds, fertilizers, and pesticides. Research results show that the average total cost of shallot production can reach IDR 1,578,776 or higher, depending on the land area and the intensity of inputs used (Ehok & Saragih, 2025).

2.8 Proposition

2.8.1 Potential for Sharia Financing of Shallot Farming

The potential for Islamic financing is based on the business feasibility theory, which states that a business with good economic prospects and a high level of sustainability tends to have a greater chance of obtaining financing from financial institutions (Amili et al., 2020). Therefore, agricultural businesses with good productivity and economic prospects tend to have a greater chance of obtaining access to financing from financial institutions (Rahmawati et al., 2024).

Proposition 1: The potential for shallot farming financing, as demonstrated by productivity levels, capital requirements, and business profit prospects, is a factor that influences the opportunities for developing sharia financing in the shallot farming sector in Brebes Regency.

2.8.2 Mechanisms and Analysis of Sharia Financing

Sharia financing analysis based on the 5C principle (character, capacity, capital, collateral, economic condition), used by financial institutions to assess customers' eligibility for financing (Hamonangan, 2020). This approach is commonly used in debtor eligibility analysis to reduce non-performing loans (Lubis et al., 2025).

Proposition 2: The mechanism and analysis of sharia financing for shallot farmers are determined by the financing feasibility analysis conducted by sharia banks, which assesses customer character, business capacity, capital, collateral, and the economic conditions of the farming business.

2.8.3 Implementation of Risk Management for Islamic Financing of Shallot Farming

The agricultural sector, including shallot farming, has a relatively high level of risk. These risks include production risks due to pest attacks and climate change, price risks due to market fluctuations, and financial risks related to farmers' ability to meet their financing obligations (Putra et al., 2024). Risk management theory explains that financial institutions must implement a systematic risk management system to maintain financial stability and minimize losses due to business uncertainty (Mahardika et al., 2024).

Proposition 3: *The implementation of risk management by Islamic banks in shallot farming financing is carried out through risk identification, measurement, mitigation, and monitoring to minimize the impact of farming uncertainty on the sustainability of financing.*

3. Research Methods

This study uses a qualitative, descriptive-exploratory approach to understand phenomena in their natural context by collecting descriptive data from informants. This descriptive data can be in the form of spoken or written language and is obtained through observation and opinion (Sugiyono, 2019). The data used in this study consists of primary and secondary data. Data were collected through semi-structured interviews. This study was conducted from November to December 2025 in Rengaspendawa Village, Brebes Regency. The informants in this study were determined using purposive sampling and snowball sampling techniques. Informants in this study included the head of the shallot farmers' group in Rengaspendawa Village, the marketing department of Bank Syariah Indonesia KCP A Yani 1 Brebes, and the Mantri Tani (agricultural extension officer) at the Rengaspendawa Village, Larangan Subdistrict Agricultural Extension Center. This study analyzes three main aspects, namely the potential for sharia financing, the mechanisms and analysis of sharia financing provision, and the implementation of financing risk management.

The potential for sharia financing is measured through indicators of agricultural capital requirements, land productivity levels, and the economic value of shallot production (Rosianah et al., 2025). The mechanism and analysis of sharia financing are analyzed based on the financing application process, financing feasibility analysis through an assessment of customer character, business capacity, capital, collateral, and the economic conditions of the farming business (Christy & Nisa, 2024; Hamonangan, 2020). The implementation of financing risk management is analyzed through the stages of risk identification, risk measurement, risk monitoring, and risk mitigation strategies applied by Islamic banks in channeling financing to farmers (Lailiyah & Yahya, 2024; Mahardika et al., 2024).

The data analysis used in this study employed a technique developed by Miles and Huberman, known as interactive data analysis. The data analysis process in this study included 1) Data reduction, whereby data was obtained from the field, starting from field notes and interviews with informants, 2) Data presentation, which involves writing the data in the form of brief descriptions with narrative text, 3) Drawing conclusions, which is the final part of the research supported by clear field evidence, so that the conclusions presented are also credible, valid, and consistent (Spradley & Huberman, 2024)

4. Results and Discussion

4.1 Potential for Sharia Financing of Shallot Framing in Brebes Regency

Relatively high planting intensity, namely two to three times a year, but generally twice a year (Mariyah et al., 2023). The annual production in the Brebes district ranges from 2.8 to 4 million quintals, equivalent to 280,000 to 400,000 tons. The harvest area ranges from 32,900 to 38,900 hectares, with 84,609 farmers who are members of 2,628 farmer groups/PokTan (Kementrian Pertanian, 2024). This scale of production indicates that shallots hold a strategic position in the regional economic structure and create significant opportunities for sharia financing for financial institutions.

Based on interviews with shallot farmers, the production cycle is 50-60 days, depending on the season. In terms of income, dry-season harvests can reach 7-8 tons per hectare, with a sales value of around IDR 140,000,000 at an average price of IDR 20,000 per kilogram (Setyowati et al., 2023). Despite significant price fluctuations, including a decline to IDR 15,000 per kilogram in early 2026, red onion farming generally remains financially viable, especially during seasons with optimal productivity. These findings indicate that the shallot farming sector has significant potential to obtain financing support from Islamic banks. From a business feasibility perspective, financing

potential can be seen from the business's ability to generate income and the sustainability of its activities (Rahmawati et al., 2024).

In terms of capital, the capital requirements for shallot farming are relatively high, ranging from IDR 80,000,000 to IDR 100,000,000 per hectare per planting season. This capital is used to purchase seeds, fertilizers, pesticides, and land cultivation, and to cover labor from preparation to harvest. To date, most farmers still rely on their own capital sourced from previous harvests, as well as informal loans from family or non-bank institutions such as pawnshops and cooperatives/BMT. This indicates a financing gap that could potentially be filled by Islamic financing in the agricultural sector.

According to the Islamic bank KCP Brebes A Yani 1, Islamic financing can boost the productivity of shallot farmers. Specifically, the Sharia People's Business Credit (KUR) scheme is considered to have great potential to support farmers' capital needs. Informants from the Islamic bank mentioned that the KUR product is the most relevant scheme because it receives government subsidies and uses contracts such as Murabahah and Ijarah. The results of this study are also in line with research conducted by Aini and Kamilah (2025), which states that Islamic financing has great potential in supporting the agricultural sector because it uses profit-sharing principles that are more flexible than conventional financing systems.

4.2 Mechanisms and Analysis in Providing Sharia Financing for Shallot Farmers

Based on interviews with the Indonesian Islamic Bank KCP Brebes A Yani 1, it was explained that the mechanism for providing financing to shallot farmers is based on the 5C financing feasibility analysis, namely character, capacity, capital, collateral, and economic conditions. This process includes an evaluation of the farmer's character, ability to pay, farming conditions, and economic conditions affecting the business. Based on interviews with Islamic banks and the following 5C feasibility analysis, character assessments were conducted through direct interviews, field verification, searches of financing histories in SLIK OJK, and confirmation with farmer groups or other financial institutions. This is in line with Islamic financing theory, which emphasizes trustworthiness and fairness as the main foundations of the relationship between banks and customers.

In terms of certainty (capacity), Islamic banks face challenges in analyzing farmers' cash flows due to limited financial records. Therefore, the analysis is conducted using an approach that estimates income based on land area, average productivity, and commodity prices. Indicators such as the Debt Service Coverage Ratio (DSCR) are used to measure farmers' ability to meet their financing obligations. In terms of capital, Islamic banks assess the existence of their own capital as a risk mitigation factor. Shallot farmers in Brebes generally have a significant contribution of their own capital, which can reduce their dependence on external financing. Meanwhile, in terms of collateral, Islamic KUR financing with a ceiling of under IDR 100,000,000 generally does not require additional collateral. However, financing at a higher nominal value still requires collateral with sufficient liquidity.

This practice is in line with risk mitigation through the 5C approach, namely character, capacity, capital, collateral, and condition of the economy, which financial institutions use in assessing the eligibility of prospective debtors (Hamonangan, 2020). Based on the interview results, it appears that the incompatibility of installment schemes is the main obstacle for farmers in accessing Islamic bank financing. Farmers tend to need seasonal or post-harvest payment schemes. At the same time, Islamic banks are still dominated by monthly installment schemes that are less compatible with the cash-flow patterns of shallot-farming businesses.

4.2 Implementation of Risk Management Applied by Islamic Banks in Financing Shallot Farmers

Sharia banking must at least include risk management, particularly the implementation of risk strategies, for both individual sharia banks and those integrated with subsidiary companies. Management has an obligation to implement comprehensive strategic risk management, including ensuring alignment among strategic objectives, the vision and mission, organizational culture, business development direction, and the Sharia Bank's risk tolerance level (Syadali et al., 2023).

Based on interviews with farmers and agricultural extension workers, shallot farming faces several major risks, including production risks (pest infestations, plant diseases, and extreme weather), price risks (commodity price fluctuations), and operational risks associated with high production costs. This finding reinforces that agriculture is a sector with a high level of uncertainty. Production risk and price risk are the two factors that most often affect the success of farming businesses (Putra et al., 2024). In risk management, these conditions demonstrate the importance of implementing an effective risk management system to minimize the impact of losses that may occur in business activities (Suriyadi & Azmi, 2022).

Based on interviews with Islamic banks, risk management in Islamic financing for shallot farmers is implemented through preventive, mitigation, and continuous monitoring approaches. Risks identified for shallot farmers include production risks (pests, extreme weather), price risks (market fluctuations), and credit risks (default). At the preventive stage, Islamic banks apply the principle of prudence through strict selection based on 5C analysis and OJK SLIK verification. In the face of economic uncertainty, Islamic banks tend to be more cautious towards smallholder farmers who have no alternative sources of income. National economic conditions, commodity prices, and government policies are important factors in determining financing decisions.

Mitigation measures include limiting financing ceilings, adjusting tenors, and determining appropriate contract structures. Under certain conditions, banks consider restructuring flexibility in the event of a significant price decline that affects farmers' cash flow. In addition, banks conduct more intensive field verification, including checking harvest histories and payment patterns during periods of commodity price instability. During the monitoring stage, Islamic banks conduct regular field visits to ensure that the financing is being used for its intended purpose and to monitor the progress of the farming business. Evaluations are carried out by comparing initial projections with actual harvests and commodity sales. This monitoring process is part of risk management implementation, which includes the identification, control, and continuous monitoring of risks (Mahardika et al., 2024).

The involvement of farmer groups and community-based approaches is an important instrument in reducing moral hazard risks. Banks also consider verified sources of payment, such as additional income from non-agricultural work, as a buffer against default risk. These findings are also supported by research by Lailiyah and Yahya (2024), which states that mentoring and educating farmers are important strategies in reducing financing risks in the agricultural sector.

5. Conclusion

This study found that the shallot farming sector in Brebes Regency has significant potential for development through Islamic financing. This potential is evident in the substantial capital required per production cycle and the promising economic prospects of shallot farming. The findings of the study show that most farmers still rely on informal sources of financing, creating opportunities for Islamic financial institutions to expand access to financing that aligns more closely with the principles of justice and profit-sharing in the Islamic financial system.

In addition, this study found that the sharia financing mechanism in the agricultural sector has not been fully optimized, mainly due to the characteristics of farming businesses, which are highly uncertain, and farmers' limited access to formal financial institutions. In practice, the financing distribution process requires a business feasibility analysis that considers farmers' characteristics, production capacity, and farming business management capabilities. This shows that a more flexible financing approach based on the characteristics of farming businesses is an important factor in improving the effectiveness of Islamic financing in the agricultural sector.

Another important finding is that risk management is a key factor in implementing Islamic financing in shallot farming. The risks faced do not only come from production factors such as weather changes and pest attacks, but also from market price fluctuations that can affect farmers' incomes. Therefore, applying effective risk management through identification, measurement, and mitigation strategies is an important step for Islamic financial institutions to maintain sustainable financing in the agricultural sector.

Author Contributions

Conceptualization: Fauzan, Yahya
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 Formal analysis: Fauzan, Yahya
 Investigation: Fauzan, Yahya
 Methodology: Fauzan, Yahya
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 Supervision: Fauzan, Yahya
 Validation: Fauzan, Yahya
 Visualization: Fauzan, Yahya
 Writing – original draft: Fauzan, Yahya
 Writing – review & editing: Fauzan, Yahya

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