

Islamic Financing Policy Scenario in the Agricultural Sector: Interpretative Structural Model Approach

Muhammad Yasir Yusuf^{1,*}, Hafiih Maulana², Abrar Amri³ and Muhammad Haiqal⁴

¹Graduate Program Magister of Islamic Economics, Universitas Islam Negeri Ar-Raniry, Banda Aceh, Indonesia; ²Faculty of Islamic Economics and Business, Universitas Islam Negeri Ar-Raniry, Banda Aceh, Indonesia; ³Faculty of Economic, Universitas Teuku Umar, Aceh Barat, Indonesia; ⁴Graduate Program Magister of Islamic Economics, Universitas Islam Negeri Ar-Raniry, Banda Aceh, Indonesia.

*Correspondent author's e-mail: muhammadyasir@ar-raniry.ac.id

Access to capital for farmers requires the intermediation function of Islamic financing amidst high business risks. The research aims to identify the appropriate construction of Islamic financing products in the agricultural sector to increase access to capital in the agricultural sector in Indonesia. The research method uses the Interpretative Structural Modeling (ISM) Analysis model. The study of Islamic agricultural financing was carried out with 3 structural elements namely purposes, constraints and policy recommendations. The findings of the research results establish 3 policy clusters. First, the construction of a parallel greeting contract model between Islamic Banking, Rice Mills, and Agents in the Warehouse Receipt System scheme. Second, strengthening farmers' access to Islamic financial institutions and adjusting Sharia financial contracts in farming capital at the central and regional levels. Third, Islamic Cooperative microfinance institutions and financial arrangements for Islamic financing in the agricultural sector. This research recommendation provides valuable insights and practical solutions for implementing Islamic financial products with an agribusiness system approach based on feasibility studies of financial arrangements and risk mitigation for agricultural financing.

Keywords: Financing, Islamic banking, agriculture, ISM, financial arrangements, policy.

INTRODUCTION

The development of the Islamic financial system in regions in Indonesia has increased in the last 5 years. In terms of regulations, institutions, and features of Islamic finance, local governments have produced many innovations in the development of the Islamic financial system which have become national strategic issues. These regional policy innovations have become a strong foundation in setting the direction and road map for the development of Islamic finance with local wisdom. The Islamic Economic Development Report (2020) notes that 12 regions already have a road map for Islamic finance development policies, namely Aceh Province, North Sumatra Province, West Sumatra Province, DKI Jakarta Province, West Java Province, Central Java Province, Yogyakarta Province, East Java Province, South Kalimantan Province, East Kalimantan Province, South Sulawesi Province, West Nusa Tenggara Province. The 2019-2024 Islamic Economic Master Plan established by KNEKS (2018) explains that the main focus of Islamic economic and

financial development is the real sector which can have an impact on national economic growth. How many real sectors that are developing and strategic are described based on the 2014-2018 Global Islamic Economic Index (GIE) assessment which determines Indonesia as a top 10 country with potential for halal food, Islamic finance, halal travel, modest fashion, halal media & recreation, and halal pharmaceuticals & cosmetics (SGIE at KNEKS, 2018). The results of the assessment based on the measurement index that has been carried out still need to be studied further. The real sector and Islamic finance require 3 approaches: access to Islamic finance for the real sector, innovative Islamic financial products, and Islamic financial institutions. The real sector that develops regionally is of course different, so it needs to be explained in the perspective of sectoral contribution, sectoral growth, and workforce. As an agricultural country, the agricultural sector is the backbone of the Indonesian economy. The agricultural sector plays a crucial role in the Indonesian economy. It provides employment for a significant portion of the population, contributes to GDP, and

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is vital for food security. Indonesia's diverse climate and fertile soil support the cultivation of various crops such as rice, palm oil, coffee, tea, cocoa, and spices. Additionally, the sector includes fisheries and livestock, which are also important for both domestic consumption and export. Agriculture is a major contributor to GDP in many developing countries, including Indonesia. Improved financing can enhance productivity and income for a large segment of the population, fostering economic stability. Based on macroeconomic indicators, agriculture is in a dominant and significant position in Indonesia's economic growth. The large potential of the agricultural sector should be a benchmark for the Government in taking strategic policies that are pro-farmers. Based on some of the latest data compiled from the Central Statistics Agency (BPS) of the Republic of Indonesia in the Q-4 2023, the agricultural sector contributed 12.53% to the Indonesian economy. The percentage contribution of the agricultural sector to the Gross Domestic Product (GDP) by field of business was recorded as the second highest sector after the Manufacturing Industry. Growth in the agricultural sector even increased by 1.3% with the most dominant labor absorption being 28.2 percent. Farmers are faced with challenges in accessing conventional financing for agricultural businesses. The condition of farmers who are unbankable as well as high interest rates and the risk of losing land as collateral result in difficulties in accessing capital. Sharia financial products offered by Islamic Banking with a profit-loss sharing scheme, purchase of agricultural equipment with a fixed profit margin, and installments without interest. This arrangement not only aligned with his religious beliefs but also provided him with the resources necessary to increase his productivity and income. Access to farmer capital needs to be done through the intermediary function of Islamic financing with the needs of the development of the agricultural sector in the regions. One of the main components of Islamic bank considerations in channeling financing is the ability to manage business risks. The agricultural sector is often considered less responsive to climate and market changes which results in high risk of farming. This risk in the agricultural sector, according to [Jankelova et al. \(2017\)](#) consists of risks resulting from sub-contract relationships, information risks, risks resulting from agro-market regulation, risks in the economic-financial sector. [Fadhil et al. \(2021\)](#) highlight the moral hazard aspect as a problem of access to finance in the farmers' agricultural sector. Calculations are made that the risk due to moral hazard is very high due to inappropriate guarantees and farming certificates. The risk in the agriculture in Indonesia is perceived in the literature in the same way in several dimensions. First, it reveals that high risk occurs in an increase in Non-Performing Financing (NPF) agricultural financing products ([Purnomo et al., 2021](#); [Hamidi et al., 2023](#)). [Asmirawati and Sumarlin \(2018\)](#); [Maulana \(2018\)](#) emphasize that Islamic financing within the framework of

access to capital for farmers has so far been considered to have a high business risk. On the other hand, [Nur et al. \(2021\)](#) with the long-term relationship found valuable implications indicating that the presence of Islamic banking can be considered as a viable financial solution within the agricultural sector. Apart from that, in another view, in the study of [Abid \(2017\)](#); [Fadhil et al. \(2021\)](#) views that there is moral hazard behavior in the agricultural sector which is the beginning of a financial institution doubt warning system. Models of Islamic financing contracts in the agricultural sector from the results Access to capital for farmers needs to be carried out through the intermediation function of Islamic financing with the development of the agricultural sector in Indonesia lots of a study by [Saragih \(2017\)](#), determine that they can be distinguished in 3 contract features, which consist of syirkah (mudharabah, musyarakah, muzara'ah, musaqqoh), buying and selling/bai' (murabahah, istishna, as-salm) and financing guarantees (rahn). The Islamic financing mechanism through Islamic agricultural insurance products is considered capable of overcoming farming risks, as researched by [Yusuf et al. \(2022\)](#) ideate the pattern of Islamic agriculture insurance guarantees risks that can arise in agriculture within the sharia frame to provide inner peace to farmers who want their agricultural land to get good and correct protection based on Islamic principles. Several development models and perspectives on Islamic agricultural financing are also found in a number of empirical literature in Indonesia. [Hudaifah et al. \(2019\)](#) formulate the development of a salam contract through company CSR funds to provide access to a reasonable selling price. The construction of other Sharia financial contracts is also offered by [Mohamed and Shafiai \(2021\)](#) with a connectivity and profit-sharing contract with Musaqah, Muzara'ah, Mukhabarah and Ijarah contracts sourced from Zakat Infak Sedaqah and Waqf (Ziswaf) funds. This Ziswaf fund is considered capable of becoming a source of revolving funds for farmer groups who are predominantly classified as poor. [Hayati \(2018\)](#) offers a profit-sharing financing model through a financing program linkage scheme that connects Farmers, BMT/LKMS, and Sharia Commercial Banks (channeling). This developed article has the objective of formulating a policy strategy for Islamic agricultural sector financing that is compatible with the needs of farmers in Indonesia. One of the primary challenges in Islamic agricultural financing is the lack of awareness and understanding among farmers about Islamic-compliant financial products. Many farmers are unfamiliar with the principles of Islamic finance and the various contract schemes available. This knowledge gap often leads to hesitation and mistrust, preventing farmers from utilizing these financial solutions. Additionally, Islamic financial institutions sometimes struggle to develop and market products that cater specifically to the unique needs and risks associated with agriculture. Islamic financial literacy has a role in building perceptions of the use of financing products for farmers.



Yuwono (2017) emphasized the finding of a description of a significant positive quantitative relationship between the level of knowledge and the use of Islamic financial products. The higher the farmer's level of knowledge of financial institutions, the higher the level of product use at financial institutions. The study was conducted using an Interpretive structural modeling (ISM) approach. The study carried out through a strategic design approach is expected to be input for policymakers to improve and increase the development of agricultural financing institutions. Therefore, the Islamic financing for the agricultural sector offered in this research builds a paradigm of objectives, constraints, and appropriate strategies for the farmers to be bankable with Islamic financing products. To build a paradigm for Islamic financing in the agricultural sector that makes farmers bankable with Islamic financial products, it's essential to outline purposes, identify obstacles, and develop appropriate strategies. Therefore, the study and model of the ISM approach in Sharia financing policies in the agricultural sector have an important urgency to make farmers bankable with Islamic financing products, thereby the result that encouraging inclusive growth and sustainability in the agricultural sector.

MATERIALS AND METHODS

Interpretive Structural Modelling (ISM) is used to formulate the strategy for developing Islamic Agriculture financing. Attri *et al.* (2012) states that interpretive structural modelling (ISM) is a well-established methodology for identifying relationships among specific items, which define a problem or an issue. ISM is the application of graphical theory resulting from the interpretation of an object that is represented or comprehensive in a systematic and interactive manner. ISM is a process of transforming a mental model that is unclear and weakly explained into a mental model that is visible, clearly defined, and useful for various purposes (Fadhil *et al.*, 2018). In this study, the ISM modeling was used to formulate a hierarchy of strategic elements for the institutional development of Islamic Agriculture Financing in Indonesia. Furthermore, according to Eriyatno (2012), the ISM method is carried out through a group learning process where an institutional structure model is produced to describe complex aspects of an institutional system condition through systematically designed patterns using graphs and sentences. Policy strategy analysis was carried out using the Interpretive Structural Modeling (ISM) method. The ISM approach was carried out using the software EXSIMPRO. Wankhade and Kundu (2020) explain that the ISM approach is able to build a production supply chain with the complexity of challenges, problems, obstacles, and supporting factors for climate change from various processes or functions as well as classification based on the climate change process using a structured approach. stated that. The stages for implementing

the ISM method are shown in Figure 1. ISM is applied with the following procedure:

1. Identifying elements and sub-elements through in-depth interviews with experts, field research, and literature review.
2. Formulating contextual relationships between elements that were built using a single structured interaction matrix (Structural Self Interaction Matrix/SSIM). This formulation was done by assessing the contextual relationship in the pairwise comparison matrix using the symbols V, A, X, and O, namely:
 - V if $e_{ij} = 1$ and $e_{ji} = 0$
 - A if $e_{ij} = 0$ and $e_{ji} = 1$
 - X if $e_{ij} = 1$ and $e_{ji} = 1$
 - O if $e_{ij} = 0$ and $e_{ji} = 0$
3. Converting the SSIM matrix to a Reachability Matrix and then to a binary matrix. This process translated V, A, X, O into numbers 1 and 0 which were then further corrected until they became a closed matrix satisfying the transitivity rule, namely the completeness of the causal loop, where for example A affected B and B affected C, then A should influence C. Reachability Matrix was performed to obtain driving power and dependent power. The Reachability Matrix having fulfilled the Transitivity Rule could be continued by setting the level partition.
4. Formulating a Canonical Matrix, namely the grouping of elements at the same level. Creating a canonical matrix was done by compiling variables based on the level resulting from the partition level, in the form of a final reachability matrix table.
5. ISM analysis, which was an analysis used to analyze the driving power (driver power) and the power of dependence (dependence power) of a variable, so that the results of the analysis can be identified as key variables in the system (Mandal and Deshmukh, 1994). The variables in the MICMAC analysis are classified into 4 sectors (Figure 3), namely:
 - a. Sector 1 is an autonomous factor (weak driver – weak dependent variable). Elements entering this sector are elements having weak driving force and dependence. Elements are not related to the system and may have only a few relationships, so the elements will be removed from the system.
 - b. Sector 2 is a dependent factor (weak driver – strongly dependent variable). Elements entering this sector are elements having a weak driving force and strong dependence. Elements in this sector are elements that are not free.
 - c. Sector 3 is a linkage factor (strong driver – strongly dependent variable). Elements entering this sector are elements having a strong driving force and dependence. Elements in this sector are elements that must be studied carefully because the relationship between elements is unstable.



- d. Sector 4 is an independent factor (strong driver – weak dependent variable). Elements entering this sector are elements having a strong driving force and weak dependence. Elements in this sector are elements that are key factors in model development.
- 6. ISM analysis, which was an analysis used to analyze the driving Compile a Digraph matrix (Directional Graph), which was a graph of elements directly related to each other at a hierarchical level.
- 7. Structural Model, namely the ISM model generated by transferring all element numbers with the actual element descriptions, so as to provide a very clear picture of a system of elements and the flow of their relationships.

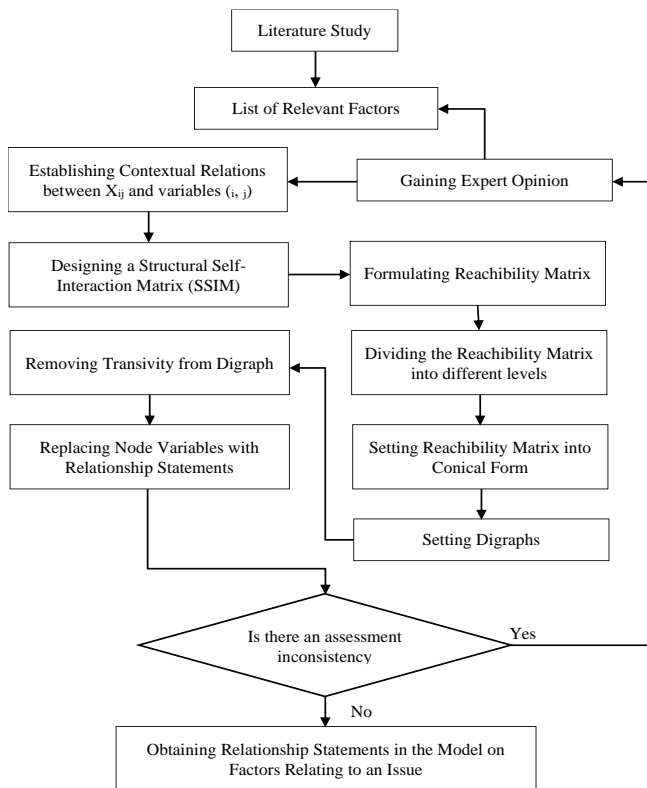


Figure 1. ISM Stages.

Data collection was carried out on a primary and secondary basis, to optimize the aims and objectives of the research. Primary data was collected by distributing questionnaires and interviews with the parties involved in policymaking. The parties involved and classified as experts include: a) The central regulator consisting of the Ministry of Agriculture of the Republic of Indonesia, Bank Indonesia, OJK, DSN-MUI, and the National Committee for Sharia Economics and Finance (KNEKS), b) Regional Government of West Java Province and the Government of Aceh. c) The management of the directors and the financial product development division of PT. Bank Aceh Syariah and PT. Bank Jabar

Banten Syariah. d) Farmers of strategic commodities of food crops and plantations, and e) Academics and NGOs/ associations engaged in Islamic finance and agriculture.

RESULTS

The first stages of identification of the problems to be resolved in the formulation of the strategy of Islamic Agricultural Sector Financing is to determine the list of main elements. Based on expert opinion, there are three elements and five sub-elements that are considered the most important for formulating strategy. The results of the three elements determined were then structured into several sub-elements to map the formulation of a policy strategy for the development of Agricultural Financing in Indonesia (Table 1).

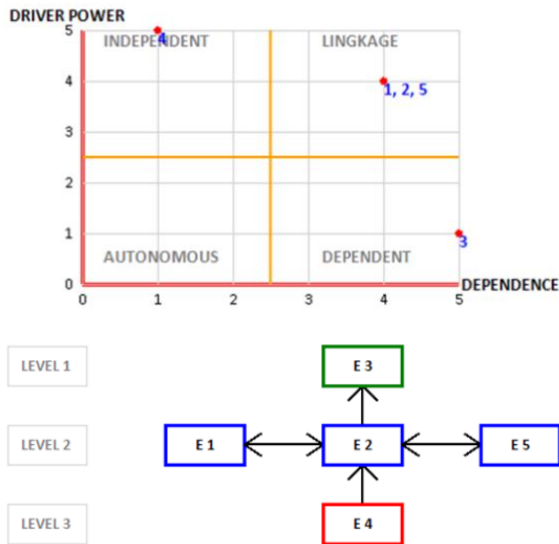
Table 1. Identification of elements and sub elements.

Element	Code	Sub-Element
Purpose	E1	Islamic Agricultural Financing through farmer working capital contracts (<i>Murabahah</i> Scheme)
	E2	Provision of financing in the form of a profit-loss sharing system (<i>Musyarakah</i> scheme)
	E3	Provision of financing in the form of land leasing schemes and agricultural equipment (<i>Ijarah</i> scheme)
	E4	Financing in the form of buying and selling contracts for harvesting grain or rice yields (<i>Salam</i> scheme)
	E5	financing in the form of savings and loans for venture capital (<i>Qard</i> scheme)
Constraint	E1	Obstacles to access to finance by farmers
	E2	There is no socialization of understanding of agricultural Islamic financial products
	E3	Limitations of agricultural business guarantees
	E4	There is no agricultural capital program from the Government (Farmer Credit)
	E5	Dislike Islamic financial institutions system
Policy Recommendation	E1	ransition of the Government's agricultural credit program to an Islamic financing system
	E2	Build the cooperation between Islamic financial institutions and partner farmers in the implementation of agricultural financing
	E3	Chanelling of Agricultural financing programs through Islamic Cooperative microfinance institutions
	E4	Socialization and counseling on Islamic financing for farmers
	E5	Regulatory arrangements and standard operational procedures for sharia financing for farmers



Structure of Program's Purposes Element: ISM analysis was conducted using an expert system on groups of rice refining business actors, agents, and Regional Islamic Banking in Indonesia. Based on the results of the ISM quadrant, there are key elements that need to be considered in decision making to achieve the purposes of the Islamic Agricultural Financing arrangements. In the structuring of purpose elements, a number of sub-elements are obtained, including; E1 Islamic Agricultural Financing through farmer working capital contracts (*Murabahah Scheme*), E2 Provision of financing in the form of a profit-loss sharing system (*Musyarakah scheme*), E3 Provision of financing in the form of land leasing schemes and agricultural equipment (*Ijarah scheme*), E4 Financing in the form of buying and selling contracts for harvesting grain or rice yields (*Salam scheme*), E5 financing in the form of savings and loans for venture capital (*Qard scheme*). Based on the analysis of the relationship between variables represented in a matrix called the structural self-interaction matrix (SSIM), the driving power and dependency values are obtained based on the results of FGD with experts. The results of the ISM equation formulation are based on the quadrant structure and hierarchy of ISM modeling between sub-elements. Following are the results of the policy quadrants and strategy levels based on the objective elements of Islamic agricultural sector financing.

Provision of financing in the form of a profit-loss sharing system (*Musyarakah scheme*) (E2), and financing in the form of savings and loans for venture capital (*Qard scheme*) (E4) were linkage factors. In the dependent factor sector quadrant (weak driver - strongly dependent variables), it is a sub-element that has a weak driving force and a strong dependency. Sub Element Provision of financing in the form of land leasing schemes and agricultural equipment (*Ijarah scheme*) (E3) is seen as a financial product that has a high dependency with a weak driving force. The purpose of financing through a system of buying and selling orders contracts (*Salam*) is a selected sub-element that is able to drive the policy system towards improving the development of Islamic financing in the agricultural sector. That is, the main foundation in achieving the competitiveness of Islamic agricultural sector financing can be formulated through the construction of a parallel salam contract. Maulana *et al.* (2023) explained about the Salam Agreement (Farming/Production Business Subsystem- Agroindustry) carried out between Islamic Banks and Rice Milling Farmers Groups with an initial price agreement in buying and selling rice. Rice mills partner with fostered farmer groups for standard cultivation techniques (on farm). The sub-element with the aim of directing agricultural financing financial products through the provision of working capital (E1), farming profit sharing (E2), and business capital saving and loan (E5) needs to be reviewed because they are interrelated among the sub-elements. This means that if the financing product is aimed at the objectives of the contracts, then the distribution mechanism must be reviewed with a number of strict requirements and criteria. This linkage factor can also be described as a sub-element of the advanced stage of agricultural financing products, if Islamic banks in the area wish to develop products for farmers. If a review of risk management aspects and assessment of bankable customers is not carried out, the contracts for working capital products (*murabahah*), profit sharing (*shirkah*) and savings and loans (*Qard*) will have the potential to cause high Non-Performing Financing values. Sub Element Providing financing in the form of a land and equipment rental scheme (E3) is seen as a financial product that has high dependency with weak driving force. The purpose of the contract in terms of leasing financial products (*ijarah*) has not become the main target of sharia financing based on the perspective of business actors and rice refining agents. If the Regional Islamic Banking wants to apply this contract, so the process of binding business and land guarantees must be the main assessment. The uncertainty of buyers in using *ijarah* contracts has the potential to experience obstacles in the distribution of agricultural financing. Based on the context of the objectives to be achieved, policy levelization can be determined based on 3 levels. The sale and purchase financing activity through the *salam* contract is the highest level (level 3) which is expected to be able to achieve the objectives. Financing through the



Source: Software EXSIMPRO
Figure 2. Purpose Element.

In structuring the elements of the program objectives, a number of sub-elements were obtained in Table 1. Furthermore, with ISM analysis, it was found that Financing in the form of buying and selling contracts for harvesting grain or rice yields (*Salam scheme*) (E4) was independent factors. Meanwhile, Islamic Agricultural Financing through farmer working capital contracts (*Murabahah Scheme*) (E1),

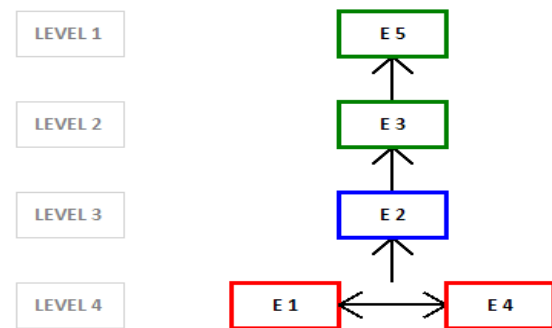
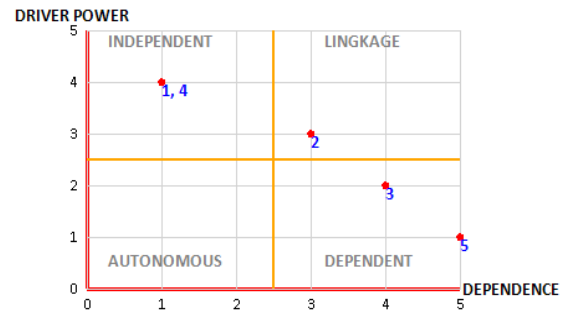


salam contract is expected to be able to drive other financing systems such as level 2 (profit sharing, working capital, and savings). At level 1, the application of ijarah/lease contracts is the lowest level in the distribution of competitive financing by Regional Banks. The application of ijarah contracts in the agricultural sector has received little attention from farming businesses and Islamic banks in the regions. A Study of the practice of Islamic agricultural financing in Iran by Meutia *et al.* (2017) state that Bank Keshavarzi's financial resources were obtained from customers who used Islamic products such as qardh al hasanah and interest-free saving. The settlement of partnership profit sharing is based on the real rate of return after the completion of the project. Partnerships are carried out by fulfilling agricultural facilities needed by farmers. A similar thing is also stated in the findings of Saqib *et al.* (2015), which explains that the practice of qard al Hasanah can be adopted by Islamic banks or financial institutions to provide much-needed financing for small farmers in Islamic countries, as well as those living in non-Islamic countries. Qardhul Hasan is a viable option for fulfilling this need and is beneficial for the farmers as well as for the Islamic banks or financial institutions. Integration of Qardhul Hasan financing can make a significant contribution to the growth and sustainability of the agricultural sector, while adhering to Islamic ethical principles.

Structure of Constraint Element: Elements of Constraints based on an inventory of FGD activities with Bank Aceh Syariah and BJB Syariah, as well as rice factory farming business actors and rice agents, determine 5 sub elements. The sub-element of obstacles in the implementation of Islamic financing in the agricultural sector include: E1 Difficult access to finance at Islamic financial institutions, E2 There is no socialization of understanding agricultural Islamic financial products, E3 Limitations in terms of guarantees for agricultural businesses, E4 There is no agricultural capital program from the Government, E5 Dislike Islamic financial institutions system. Based on the structuring of the constraint element, it was found that E1 and E4 were independent variables (Figure 5). The E2 sub-element was a linkage variable. Furthermore, on the dependent variable, it is found that sub-elements E3 and E5 were highly dependent on other sub-elements.

Based on the ISM analysis, it is found that E1 and E4 (Level 4) as independent variables have a strong driver power as well as a low level of dependency. The two sub-elements that become independent variables are the constraints on access to finance that are not evenly distributed and the absence of a capital program from the government. These two sub-elements are seen as key factors that need to be considered in order to overcome the constraints of Islamic financing in the agricultural sector. The results of a study conducted by Hudaifah *et al.* (2019) found that there was a discrepancy between farmers (gapoktan) and Islamic banks due to general

banking regulations which were usually very rigid and organized under the Banking Law.



Source: Software EXSIMPRO

Figure 3. Constraint Element.

The role of regional banks needs to formulate a strategy for an Islamic financing market approach to increase access and adjust the the Small-Mikro Farming Capital program (locally called Kredit Usaha Rakyat-KUR Tani) to farmers in an affordable and equitable manner. The socialization sub-element of understanding agricultural sharia financial products (E2) is a linkage variable that needs attention. This linkage variable means that the level of socialization constraints that are not yet optimal is very closely related to agricultural financing activities evenly. Socialization of Islamic financing in the agricultural sector needs to be developed by strengthening the Islamic financial literacy function for farmers. The results of the decomposition of the formulation of the ISM model based on the elements of constraints, produce 4 levels of policies that need to be built systematically and sustainably. The first level of policy that needs to be done is to overcome the problem of access to Islamic finance and the absence of a Sharia farming capital program by the Central-Regional Government. These two constraints need to receive major attention at the policy level, because the implementation of the the Small-Mikro Farming Capital program needs to comply with the details of Qanun regulation No. 11 of 2018 concerning Islamic Financial Institutions. This means that the Government of Aceh needs to build synergy with the Central Government so that the



transition to the Islamic KUR-TANI Program can be accessed by farming actors.

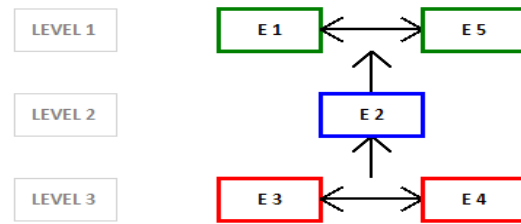
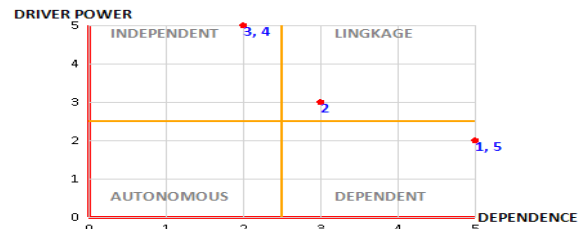
The second to fourth levels sequentially need to be built with policy stages: 1) Socialization of financing to farmers, 2) Overcoming business guarantee issues, and 3) creating a strong relationship between Bank Aceh Syariah and farming actors. Departing from the constraints in the implementation of Sharia Financing in the agricultural sector in Aceh, the second and fourth policy levels need to consider the existence of a phasing process for resolving obstacles in a sustainable manner.

Structure of Policy Recommendation Element: Based on the results of the Focus Group Discussion, 5 recommendation sub elements were determined which included: E1 There is a special KUR-Farmer program in the form of Sharia financing from the central and regional governments, E2 There is cooperation between Islamic financial institutions and partner farmers in implementing agricultural financing, E3 Agricultural financing is channeled through institutions Islamic Cooperative micro finance, E4 Implementation of Islamic financing outreach and outreach activities for farmers, E5 Regulatory arrangements for Islamic financing for farmers.

The five sub-elements have a close relationship to connect Islamic Financial Institutions with the agricultural sector. The tabulation results carried out with the ISM model tool can be explained in Figure 4.

The structuring of the policy recommendation elements shows the consistency of the direction of strategic policy development with the structure of the elements of objectives and constraints. In the independent variable, the E3 and E4 sub-elements are obtained as the strongest driving factors with the lowest dependency on the other sub-elements. The selected sub-element is a policy recommendation for agricultural financing channeled through Islamic Cooperative

microfinance institutions and regulatory arrangements for Islamic financing in the agricultural sector (E3).



Source: Software EXSIMPRO

Figure 4. Policy Recommendation Element.

These two sub-elements are key factors that are important as the main basis for Islamic agricultural sector financing policies in Indonesia. Furthermore, the E2 sub-element is in the linkage factor group that stands alone in the policy system. The existence of cooperation between Islamic financial institutions and partner farmers in the implementation of agricultural financing which is in the quadra linkage illustrates that this policy is a variable that moderates the agricultural financing policy system. The moderation meant in this case is that partnerships between farmers and Islamic financial institutions need to be built as a buffer that strengthens the policy system after regulatory arrangements/SOPs and the distribution of Sharia Financing through Islamic Cooperative institutions. Dependent

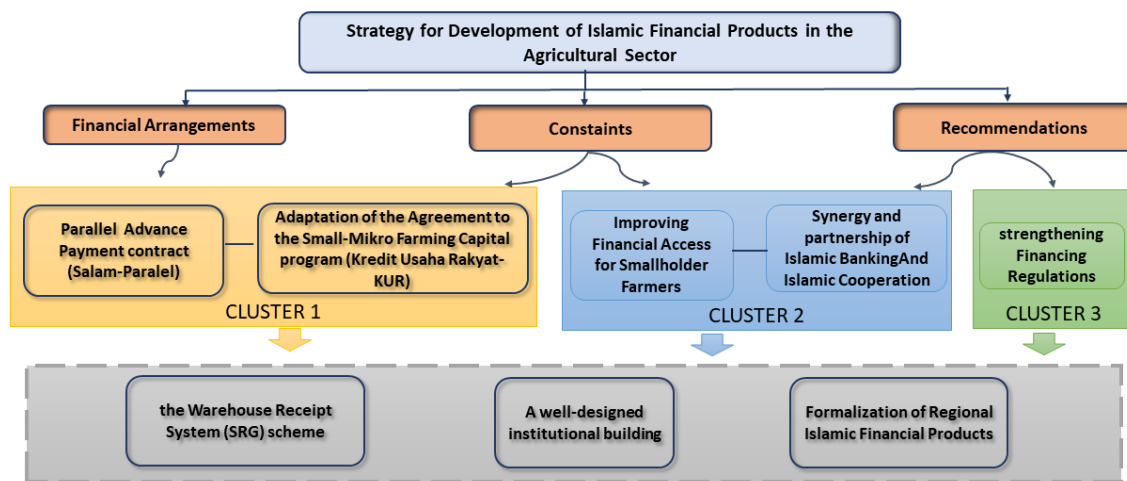


Figure 5. Islamic agricultural financing strategy scenario.



variables bound in the policy system are confirmed in sub-elements E1 and E5. The sub-elements of the Central Government's KUR-TANI special program (E1) and the Socialization of Sharia financing to farmers (E5) have a high degree of dependence on the policy system. The process of socialization and synergism of the KUR-TANI program is the final stage in making decisions that are right on target. Implementation of sharia financing in the agricultural sector needs to be designed with an agribusiness system approach, starting from upstream (on farm) to downstream (off farm) activities. Regions in Indonesia have prospects for the development of potential sharia financing in the plantation and food crop sectors. Financial literacy for farmers needs to be done through education and mentoring. The results of interviews with farmer groups in Aceh Besar District obtained information that most of the farmers joined the capital facility program due to encouragement from the local Agricultural Extension Agency (locally called Badan Penyuluh Pertanian). The registration process and service facilities at agricultural extension kiosks and infrastructure are not understood by farmers so that the results of the financing program are not sustainable.

DISCUSSION

The findings from research on the development of Islamic financial products in the agricultural sector at Regional Banks determine 3 policy clusters that need to be developed systematically. The first cluster in the objective aspect, which is the key factor, is building the construction of a parallel greeting contract model between Islamic Banking, Rice Mill, and Agent in the Warehouse Receipt System (locally called Sistem Resi Gudang-SRG) scheme. The second cluster as a key factor in the constraint aspect is strengthening farmers' access to Islamic financial institutions and adjusting Islamic financial contracts in farming capital at the central and regional levels. The third cluster as a key factor is building an institutional system between farmers and Islamic banking to prepare Islamic agricultural financing regulations. If depicted in a policy ecosystem, the research results in the 3 policy clusters can be explained in Fig. 5.

In the first cluster, parallel advance payment contract (Salam) are financial products that suit the needs of farmers and the sharia financing market. *Atah et al. (2019)* proposed a hybrid model of Bay Salam with islamic agricultural insurance (takaful). Takaful provide guarantees to farmers through risk-sharing, sebagaimana *Yusuf et al. (2022)* stated the same thing about the agricultural insurance pattern which guarantees risks that may arise in the agricultural sector to provide protection based on Islamic principles. This first cluster is also closely related to adapting/adjusting farming capital financing contracts through a parallel sale and purchase agreement scheme. This policy can be developed sustainably through the Warehouse Receipt System Model

which connected between Islamic Bank, agents, and Rice Mills. The Salam agreement in parallel provides off-taker farmers with access to the Islamic Financial Institution market. It is hoped that the Salam Agreement will encourage Islamic financial institutions to channel their funds to farmers. In India, *Khan and Nomani (2021)* outlined Salam transactions are suitable for pre-harvest financing which allows the seller to deliver the agricultural produce at a future date in return for the full upfront price paid on the spot. Salam transactions are suitable for pre-harvest financing which allows the seller to deliver the agricultural produce at a future date in return for the full upfront price being paid on the spot. The second cluster is a process of strengthening financial access for farmers which is synergy and partnership of Islamic Banking and Islamic Cooperation. Farmer groups in Indonesia are generally incorporated into the Village Cooperative System (locally called Koperasi Unit Desa-KUD) and Farmer Group Cooperatives. The existence of a partnership scheme between Farmers' Cooperatives and Islamic Banking can be a solution to achieving access to Islamic financing. The linkage program distribution model between farmer groups, cooperatives, and Islamic banking can be a solution in strengthening access to Sharia finance and expediting the financing distribution process. Furthermore, in this second cluster, the institutional system is an important element in building a Sharia financing policy ecosystem in the agricultural sector. The institutional strategy proposed in the Islamic financing system in the agricultural sector needs to be built in relation to central and regional government program policies. The existence of Sharia financial institutions and microcredit organized by the government, for example the People's Business Credit program, will gradually reduce the practice of loan sharks in society (*Muheramtohad, 2017*). This means that financial assistance from Islamic Financial Institutions can collaborate with other programs related to assistance activities in the agricultural sector. The third cluster as a policy recommendation determines the key factor in the form of formalization of Islamic financing regulations for the agricultural sector. Regional governments can establish a formal legal framework regarding the technical governance of agricultural financing in accordance with sharia. The existence of formal regulations will open up a more sustainable and prudent Sharia financing market share. The implementation of Islamic financing formulation in the agricultural sector needs to be designed using an agribusiness system approach, starting from upstream (on farm) to downstream (off farm) activities. Regions in Indonesia have potential prospects for developing sharia financing in the plantation and food crop sectors.

Conclusion: The findings from research on the development of Sharia financial products in the agricultural sector at Regional Banks determine 3 policy clusters that need to be developed systematically. The first cluster in the objective



aspect, which is the key factor, is building the construction of a parallel greeting contract model between Islamic Banking, Rice Mills, and Agents in the Warehouse Receipt System scheme. The second cluster as a key factor in the constraint aspect is strengthening farmers' access to Islamic financial institutions and adjusting Sharia financial contracts in farming capital at the central and regional levels. The third cluster in the policy recommendations which is a key factor Islamic Cooperative microfinance institution and regulatory arrangements for Islamic financing in the agricultural sector. Implementation of Islamic financing in the agricultural sector needs to be designed with an agribusiness system approach, starting from upstream (on farm) to downstream (off farm) activities. Institutionally, it is necessary to build a feasibility study approach to all the contracts offered on the financial aspect, the resulting Islamic financial products, and the risk mitigation of agricultural products.

The strategy for Islamic financing in the agricultural sector is based on the expected objective elements, establishing parallel salam financing contracts (orders) as a key sector (key factor) in the policy system. The application of parallel salam contracts can further be developed through a sale and purchase contract approach and a Warehouse receipt system.

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