Halal agriculture as an effort to strengthen the global halal value chain in order to increase international trade

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ABSTRACT

Introduction
Indonesia as an agricultural country with a Muslim-majority society has great potential to develop halal agriculture. The halal agricultural sector must be strengthened so that agricultural products can be exported abroad.

Objectives
The purpose of this study is to strengthen the global halal value chain to increase international trade through the halal agriculture sector.

Method
This study employed qualitative methods using a descriptive approach. The data collection method used literature studies from various reference journals, agency reports, and online media.

Results
This research concludes that the development of halal agriculture has great potential for development in Indonesia, so that it can increase international trade by improving the global halal value chain. With the development of halal agriculture in Indonesia, it is expected to be able to bring Indonesia to become a country with food security and the center of the halal industry in the world.

Implications
The results of this study can be guidelines for policymakers to improve contribution of halal agriculture in Indonesian export. Furthermore, it can contribute to further studies in global halal value chain for agriculture-based products.

Originality/Novelty
This study contributes to body of knowledge of global halal value chain with emphasize on agricultural sector in Indonesia.


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INTRODUCTION

The concept of halal is well known and frequently used in the Muslim and non-Muslim world, covering all aspects of human behavior, including food, clothing, and speech (Alzeer et al., 2020). In addition, the concept of halal is also in line with the demographic reality of the world’s Muslim community, where by 2030 the world’s Muslim population is expected to reach 2.2 billion or 26.4 percent of the total world population (Hashom et al., 2020). The Muslim population in Indonesia is 241.7 million or 87% of the total population of Indonesia in 2022. The large Muslim population also influences the use of halal products in everyday life. Expenditure of Indonesian Muslims for halal products and services is projected to be 14.96% in 2025, namely USD 281.6 billion, this makes Indonesia the largest halal market consumer in Indonesia, namely 11.34% of global halal expenditure (Junida & Yumna, 2023).

The halal industry and the Sharia economy in Indonesia continue to prove themselves at the global and domestic levels as important pillars of economic growth and development. The Dinar Standard report states that by 2025, the world’s Muslims will buy halal products with a value of up to USD 2.8 trillion. In addition, Bank Indonesia estimates that the priority sector for the domestic Halal Value Chain (HVC) is that in 2023, it is expected to grow by 4.5 -5.3% so it is projected to be able to support more than 25% of the national economy (Badan Penyelenggara Jaminan Produk Halal, 2023; Kemeterian Perindustrian, 2023).

Indonesia has enormous potential for agriculture, especially tropical agriculture. Agricultural businesses include food crop cultivation, horticulture, plantations, fisheries, forestry, and animal husbandry. Food production includes rice and secondary crops; horticulture includes oil palm, rubber, and herbal plants (roots); and forestry production consists of logs from natural forests and industrial plantation forests (Basyariah, 2022).

The agricultural sector in 2020 under the conditions of the Covid-19 pandemic was still able to maintain positive growth; the GDP growth rate for the agricultural sector increased by 1.77% and in 2021 by 1.84% (Ministry of Agriculture of the Republic of Indonesia, 2022). These data show that there are opportunities for business products in Islamic banking to maximize the halal value chain in accordance with the economic potential of the community. The agricultural sector has several important indicators that can be used as a Sharia business development sector, namely the large natural potential it has, its large contribution in absorbing labor, its potential to reduce poverty, and its potential to increase economic growth in rural communities (Wahyuni & Arfidiha, 2019). In addition, the agricultural sector is considered capable of surviving amid the Covid 19 pandemic when many other industrial sectors have experienced a decline (Santi, 2021).

The agricultural sector will produce rice in 2022 for food consumption for the population reaching 31.54 million tons, an increase of 184.50 thousand tons or 0.59 percent compared to rice production in 2021 which amounted to 31.36 million tons (Badan Pusat Statistik, 2022). Indonesia occupies the 4th position, below China, India, and Bangladesh, as a rice-producing country in the world, with rice production of 35.4
Halal agriculture in global halal value chain

One of the factors that can increase the production and productivity of agricultural production is capital. With sufficient capital, farmers can increase the productivity of agricultural products to increase their income and welfare (Basyariah, 2022).

Therefore, Sharia-based financing is important. This aims to manifest an attitude of mutual help, willingness, and avoidance of acts of tyranny and tyranny, and the most important thing is to avoid the usury system. Therefore, Indonesia needs to apply Sharia financing to increase financing in the agricultural sector (Widiana & Annisa, 2018). The magnitude of the potential for the development of Islamic financing does not necessarily inspire the enthusiasm of several Islamic banking institutions to provide business products in the agricultural sector, which are evenly distributed in all regions of Indonesia. Strategies or policies issued by banks in developing their business products will pay attention to prospects and priority sectors in an area (Maghfirah & Andriani, 2022).

Sharia products with salam contracts can be used as alternative financing solutions in the agricultural sector. A salam contract, also known as a tough purchase contract, is a contract for financing an item by ordering and paying a price in advance under certain agreed conditions. This is in accordance with the condition of farmers in Indonesia, who, on average, have only small capital and will only have money when the harvest season has arrived. Of course, if this salam contract is accessible to farmers, it will help them escape the shackles of moneylenders (Widiana & Annisa 2018).

Several previous studies have discussed the halal industry and agricultural financing in Islamic financial institutions. Ishak (2018) and Ashraf (2021) suggest that Islamic financing is an alternative solution in the business, investment, and other sectors, because Islamic financing institutions have advantages in varied products and survive the economic and monetary crises and do not implement interest systems (interest). In addition, Meutia et al. (2018) identified several financing models in the agricultural sector in several world financial institutions, where the financing products implemented in Sudanese and Iranian agricultural banks are a form of cooperative agreement with constant profit agreements for farmers. While practices in other countries such as Malaysia and BMT Sidogiridi Indonesia also offer financing products with constant profits, however, the types of financing contracts they distribute are Tawarruq and Bay al Wafa. Inten et al. considered that the contracts used were not in accordance with the rules of Islamic economics.

Sudarsono (2019) discussed the factors that influence agricultural financing in Islamic banks. The results indicate that there is a causal relationship between bank interest rates and customer interest in applying for agricultural sector financing. If interest rates are low, customers will tend to apply for financing at conventional banks, but if interest rates rise in the form of profit-sharing agreements, customers will prefer financing at Islamic banks. Previous research describes the strengthening of the halal value chain of a business product. Departing from this basic concept, the value chain consists of a set of main and supporting activities. The main activities start with the entry of production material processes and production processes to the stages of...
output, marketing, and sales. Meanwhile, supporting activities consist of developing the company’s infrastructure sector, increasing human resources, technology development, and supporting activities to achieve desired business targets (Piboonrungroj et al., 2017).

Straková et al. (2020) also stated that strengthening the value chain to determine the significance of various aspects really needs to be formulated so that it will have an impact on the probability of a company and have implications for the birth of a mature strategy or policy design. Other research (Ningrat & Nurzaman, 2019) reinforces the idea above that an appropriate strategy in agricultural development efforts can be carried out by integrating policies formulated by several actors and agencies, including financial institutions as providers of access to capital, farmers, the Ministry of Agriculture, investors, and other institutions that can facilitate the development of farmer businesses as an effort to increase agricultural prospects, which is an effort to strengthen the value chain in the agriculture sector by integrating upstream to downstream or from input to output. However, these integration efforts are separate activities, but are highly dependent on one another.

Based on the background and various problems faced in the agricultural sector, this study examines and offers new business products for Islamic banks with competent contract formulation and financing models, as well as integrated policies through special programs in the agricultural industrial sector. It is hoped that this paper can become a treasure trove of ideas and alternative solutions for solving problems in the agricultural sector, namely in the development and expansion of agricultural products.

LITERATURE REVIEW

Halal Agriculture

The food industry sector, based on agricultural products, has experienced significant global development in recent decades (Trienekens & Zuurbier, 2008). Technological advances have influenced the development of international trade in the agricultural sector. The halal product market has a large opportunity and continues to grow. The agricultural sector is a promising sector in the halal industry because every product must be halal in the production process (Prabowo & Rahman, 2018). Agricultural product-based industrial products such as fisheries and plantation sectors need to obtain halal certification in order to meet export requirements to certain countries such as Malaysia and the Middle East (Outhman et al., 2016).

The halal aspect in agricultural practices is not only limited to the way animals are slaughtered, but covers a broader aspect, namely halal toyiban, which means that agricultural products must be safe and healthy for consumption (Sulaiman, 2020). In its application, the agricultural halal industry must be able to produce products with the best quality and service to meet the demand for food production and sustainable agricultural systems (Rezai et al., 2015). Management of the halal agriculture industry must be in accordance with the system of good agricultural practices (GAPs) and good halal practices (GHs) to ensure the safety and conformity of agricultural culture and food processing with Islamic principles (Alzeer et al., 2020).
Halal Value Chain

Halal has now become a universal concept, with the term exclusively used in Islam to affirm that a product is permissible or legitimate. Neither party can claim that the food is halal without complying with Islamic law as stipulated in the holy book of the Quran (Amir & Subroto, 2019). In addition, halal vocabulary is not only a reflection of the quality assurance of a product, but also a symbol of a global lifestyle that is trending among the world population (Widuhung & Machmud, 2022). The global market demand for halal products and services has significantly driven the development of halal systems since the early 2000. This is also supported by the Muslim population in the world currently reaching 1.6 billion people or 25% of the world's population. There are 56 Muslim-majority countries with GDP reaching 6.7 trillion dollars (Widuhung & Machmud, 2022).

Halal Value Chain (HVC) is an industrial effort that integrates input, production, distribution, marketing, and consumption. Halal integrity guarantees the halal status of a product throughout the supply chain (Majid et al., 2023). When producing halal products, it is necessary to pay attention to the inputs (raw materials) used and the processing technology used. Packaging also reflects cleanliness and halal, which is maintained until the product is accepted by Muslim consumers (Mahsun et al., 2023). Meanwhile, the shift in the modern marketing paradigm from a consumer-centered era to a more value-driven era has the potential to build brands that combine Islamic attributes with their products (Tieman & Ghazali, 2013).

Indonesia began to anticipate the development of this halal issue by passing Law No. 33 of 2014 on halal product guarantees. This aims to provide comfort, certainty, and availability of halal products for the public to consume and use (Prabowo & Rahman, 2016). However, the implementation of Law No.33/2014 has not made significant progress, even though the main approach of the Islamic economic master plan is to improve the entire value chain of the halal industry in Indonesia, starting upstream and downstream. Thus, the main method to strengthen the halal value chain in Indonesia involves five main programs, namely (Rakhmad et al., 2023):

1. Build halal hubs in different regions based on their comparison
2. Develop globally recognized and effective halal standards
3. Launch a halal lifestyle campaign
4. It provides incentives for local and global investors to support the development of the halal-value chain industry.

International Trade

Technological advances and globalization have made it easier for companies in the food industry to access the global market (Ristiyani et al., 2022). Food products can now be imported and exported quickly and efficiently to various parts of the world to expand the market share of the products produced in Indonesia. The Indonesian food industry has great potential in the international trade of halal products to Muslim countries, so certification and assurance are needed for every product to be exported to Muslim countries such as Malaysia and the Middle East (Fothriani & Annisa, 2019).
Indonesia has the largest food market among other Islamic cooperation (OIC) member countries (Masruroh et al., 2021). Indonesia has the potential to become the leader of the world halal food product trade with the Muslim population, amounting to approximately 85 percent of the total population of Indonesia (Qoniah, 2022). The halal food market in the country is quite large, so it is quite easy for Indonesian halal food producers to market their food products domestically, considering the needs of the community are also quite large (Fothriani & Annisa, 2019). In addition, globalization and shifts in understanding and trends in the use of halal food products have helped expand the market share of halal food products so that they are not only limited to Muslim countries, but also to other potential markets with non-Muslim consumers (Johan, 2018).

**METHOD**

The method used in this study is a qualitative method that compiles a large amount of data in the form of words. Qualitative data analysis is intended to provide a valid opinion from the large amount of data collected (Sekaran & Bougie, 2016). For a comprehensive literature search, we searched multiple databases selected for a high number of results: Science Direct, Google Scholar, and Web of Science. (Yadav, 2022). Data were collected using the documentation method from secondary data by collecting and processing data from various journals, reports, books, websites, and others relevant to the topic to be discussed. Furthermore, it is discussed in depth in the literature review section and makes comparisons between previous findings and available theories to obtain valid results according to both (Saputra & Ali, 2022).

**Figure 1.** Steps in literature research

Source: Primary data.
RESULTS AND DISCUSSION

Potential for the Development of Sharia Financing in the Agricultural Sector

By examining agricultural and rural financing in Indonesia, it is almost impossible to ignore the role of credit institutions in rural areas. Most forms of business financing in the agricultural and rural sectors originate from this institution. It can be said that the existence of a credit program is one of the facilitating elements for success in the agricultural sector development program. Credit not only facilitates development but can also be an element of technology adoption, which is expected to increase production, added value, and people’s income (Ashari & Saptana, 2016).

Strengthening the role and institutions of Islamic banking in national economic development is important for realizing inclusive and sustainable growth. This is in line with the basic principles of the Islamic economy, which carries out financial transaction activities based on real assets or projects, so that the Islamic economy plays an important role in supporting the development of the real sector and improving the economy in a sustainable manner. The development of the Islamic economy is carried out through the development of a halal-value chain. This is accomplished by implementing a business model based on a variety of partnership patterns ranging from small to large scales.

Strengthening the Halal Value Chain in the Agricultural Sector

The development of the Islamic banking industry in Indonesia entered a new phase, indicating that the Islamic economic system is progressing. This achievement should also be followed by other halal industrial sectors such as the halal food industry, halal fashion, halal travel, halal cosmetics and pharmaceuticals, halal media and recreation, and Islamic finance (Muflihin, 2018). The concept of halal in question refers to the rules in the holy verses of the Koran and other sources of Islamic law, which stipulate that everything must be free of components that are prohibited for consumption, use, or practice by Muslims. The use of the term halal here is universal in its meaning in Islam, so it applies to all aspects of Muslim life (Elasrag, 2016).

The development of a business model at an Islamic bank that aims to optimize the value chain of the halal industry is an effort taken by the bank to enhance its role as an institution that provides access to finance to the public, so that financial inclusion is stable and healthy. A series of analyses using the value chain framework in this study were carried out to identify product schemes and all the actors involved in maximizing the concept of the halal industry in the business products proposed by the author, namely halal agriculture. The offering of halal agricultural business products is intended for the agricultural financing sector. Halal agriculture is expected to have positive implications for expanding the scope of halal consumers in Indonesia, especially in the halal finance sector, so that the halal industry can develop into a real sector, namely the agricultural sector.
The Concept of Salam Contract Financing in the Agricultural Sector

Islamic finance has various financing models that make it possible for Islamic banking to find the type of financing required. The main models of agricultural financing used by banks are Musyarakah (including Muzara’a, Musaqqoh, and Diminishing Musharaka), Murabahah, greetings, Ijarah, and Istisna. Musyarakah financing is for long-term financing, whereas murabaha financing is for short-term financing (Basyariah, 2022).

Bai’ as-salam financing (in front payment sale) is a sale and purchase under the condition that the buyer pays at this time, while the goods will be received in the future. Bai’ as-salam is different from the practice of bondage that has been known and practiced by rural communities to this day. In the ijion system, the quantity of goods traded is not clear and is highly speculative. In bai’ as-salam, the quantity and quality of the goods, and the time of payment must be clear. For the agricultural sector, the Ba’ as-Salam scheme can be applied. For example, Islamic banking provides loans to customers to buy farmers’ grain at a reasonable price (Ashari & Saptana, 2016).

The right model for developing salam transactions is to empower farmer groups or pesantrens. The group model as a joint responsibility model will make it easier to control activity reporting funds because there are many components that can be used as executors, supervisors, controllers, and activity report makers. Salam contracts are suitable for community empowerment, especially in the development and improvement of agricultural products and other small businesses. This is because there is a guarantee of a market for the products. The problems experienced by small farmers and other small business actors include market problems. This becomes easier if Islamic banks work directly with factories to accommodate products marketed by farmers and the economic community.

Because of several problems in the development of financing in the agricultural sector, Islamic banks have the opportunity to issue their business products through a low-risk financing structure. Bank cooperation with the Warehouse Receipt System (WRS) can become a guarantor of people’s agricultural products. In practice, the prices of agricultural commodity products on the market are often unstable, resulting in the value received by farmers often being inadequate to support their economic needs or become further production capital.

Collaboration between Islamic banking and WRS can be a solution to the problem of volatility in the prices of agricultural commodity products as well as a simple financing system with the existence of a cooperative relationship between SRG and Islamic Banks, making it easy for farmers to access financing to support economic needs. Value chain analysis and mapping of a commodity are important things to do. The purpose of mapping is to identify product flows and the synergy of the actors involved in the value chain, starting from farmers as coffee producers to the output (marketing) level (Elasrag, 2016). Value chain mapping is also useful for identifying actors who can provide the greatest value in optimizing the value chain (Pratama et al., 2019). Strengthening the halal value chain in halal agriculture bank business products in the coffee industry sector can be implemented in two steps: first, mapping the actors
who can be involved in optimizing financing in the coffee farming industry; second, mapping operational financing in Islamic banks, which includes an elaboration of the procedures for applying for financing, the contract patterns used, and the output process for coffee farming products. First, we map the actors involved. There needs to be integration from upstream to downstream in the development of the halal industry in the agricultural sector, such as building cooperation between several stakeholders in playing their respective roles.

Second, we mapped the financing of halal agricultural business products. Based on several previous studies, as explained by the author in sub-chapter above, salam contracts in agricultural financing in Islamic banking have been offered by other researchers, but what is being offered in this study is the operational concept obtained through a systematic value chain analysis framework. Based on the problems that commonly occur in agricultural financing in Islamic Banks is a high risk, it is necessary to have an appropriate contract scheme and integrated institutional solutions. The salam contract has an opportunity and is feasible for development as a contract for agricultural financing in Islamic banks (Widiana & Annisa, 2018). Departing from this research, the authors offer a parallel salam contract implemented for halal agriculture financing in Islamic banks. A parallel salam contract can be applied to a financing scheme in Islamic banks to mitigate the risk of loss and maximize the productivity of people’s agricultural products. The financing contract scheme is parallel to that of the agricultural sector.

Figure 2. Financing Scheme of the Agricultural Sector Parallel Salam Contract

Making agreements between Islamic banks and customers in halal agriculture financing must go through several procedures that guarantee controlled financing
risks. There are several things that become provisions for applying for financing by customers (farmers), including: 1. Customers who receive warehouse receipt guarantees. Warehouse receipts issued by SRG can be used as collateral for financing submitted by farmers to Islamic banks. 2. Customers who already have certification of superior agricultural products are endeavored to maintain the quality of agricultural production that will be received by the WRS to ensure the smooth marketing of products; 3. Customers are fostered by the government (actors) who carry out their respective roles, as described in Table 1, resulting in high-quality agricultural products and sustainable productivity. The parallel salam contract scheme in halal agriculture financing shows the involvement of SRG as a warehouse/guarantee and buyer of customers’ agricultural products. The role of SRG is a new breakthrough in access to risk mitigation that banks would have avoided with the existence of a quality and certified guarantee institution. The storage of agricultural commodities by farmers at WRS is closely related to the consistency of the quality of these goods; therefore, the WRS needs to evaluate the suitability of each item that enters the warehouse so that the quality that becomes the identity for RSG continues to be consistent. However, the role of institutions and stakeholders from other agencies is also necessary to produce high-quality agricultural production.

CONCLUSION

The development of Sharia bank business products right by taking advantage of agricultural industry opportunities can be a solution for banking in optimizing the performance of banks in the agricultural financing sector, and also provide convenience for customers (farmers) in accessing capital. Halal agriculture offers researchers the opportunity to optimize bank performance, as well as an effort to develop the halal industry, particularly in the halal finance sector. This business model was developed within the framework of a halal value analysis chain, namely, by mapping the involvement of several actors (government agencies) in supporting the development of the agricultural industry, and financing mapping packaged in the form of a parallel salam contract by involving the Warehouse Receipt System as a second customer and farmers as customers. SRG’s involvement is very urgent in scheme halal agriculture financing, apart from being an institution guarantor for banks, as well as guaranteeing institutional price stability of agricultural commodities and institutions that guarantee the quality of commodity products to be exported or marketed. Hopefully, with the involvement of SRG in the sector, halal agriculture financing in Islamic Banks brings good news for the agricultural industry in Indonesia, because the problem of fluctuations in coffee prices that often occur in the market can be controlled by the existence of a guarantor.

**Author Contributions**

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<tr>
<th>Conceptualization</th>
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Informed Consent Statement
Informed consent was obtained before respondents fulfilling online questionnaire.

Data Availability Statement
The data presented in this study are available on request from the corresponding author. The data are also publicly available.

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Conflicts of Interest
The authors declare no conflict of interest.

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