

Analysis of the Green Economy Framework for the Sustainability of the Halal Industry in Indonesia

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ABSTRACT

The halal industry is a strategic sector in Indonesia's economy; however, its development continues to face sustainability challenges, particularly in integrating environmental considerations into the halal value chain. While the green economy paradigm has become central to sustainable development discourse, systematic efforts to integrate this framework within the Indonesian halal industry remain limited and fragmented. This study aims to analyze the systemic and conceptual integration of the green economy framework in supporting the sustainability of the halal industry in Indonesia. Using a qualitative approach, this research employs a narrative literature review of scientific articles indexed in Scopus, Web of Science, and Google Scholar from 2019–2025. Literature selection was conducted systematically based on thematic relevance, conceptual contribution, source quality, and contextual alignment with halal industry and green economy issues. The findings reveal that integrating green economy principles into the halal industry requires a multidimensional framework comprising five components: (1) green sharia value, (2) green production and clean technology, (3) sustainable halal supply chain, (4) green halal financing and investment, and (5) policy, governance, and public engagement. The model demonstrates that halal industry sustainability depends not only on sharia compliance but also on ecological efficiency, technological transformation, and collaborative governance. The study contributes theoretically by linking maqāsid al-sharī'ah with the green economy paradigm and provides practical guidance for developing sustainability-oriented national halal policies.

1. Introduction

The development of the global halal industry is showing significant growth. The total value of the global halal industry (covering food, finance, cosmetics, travel, pharmaceuticals, etc.) is estimated to reach US\$7.7 trillion by 2025, up from US\$5.7 trillion in 2021. The majority (around two-thirds) of this growth comes from the Islamic financial services sector, which now has assets worth US\$620 billion, or around 18% of total global assets in this area ([Consultancy.asia, 2023](https://www.consultancyasia.com)). The development of the halal industry is in line

with the growing awareness of Muslims about the importance of Sharia-compliant products and services. Indonesia, as a country with the largest Muslim population in the world, has a strategic opportunity to become the center of the global halal industry. Therefore, it has great potential in developing the halal industry in various sectors such as food, beverages, fashion, cosmetics, and services.

However, along with the increase in industrial activity comes the challenge of environmental sustainability. Pollution, industrial waste, and high energy consumption

are inevitable issues. In the face of these challenges, the green economy approach is emerging as a strategic solution that emphasizes sustainable and low-carbon growth. Research shows that the construction and transportation sectors contribute significantly to emissions and environmental damage ([Kimsan, 2023](#)), necessitating a shift towards environmentally friendly modes of transportation and more effective waste management. In this context, [Thahirah & Adam \(2022\)](#) recommend the implementation of green economic strategies and renewable energy innovations in OIC countries, while in Indonesia, responsible resource management policies are also geared towards supporting environmental and social sustainability ([Adnan & Hasana, 2023](#)). The implementation of the green economy concept is crucial in dealing with environmental challenges due to industrialization, where sustainable infrastructure development ([Panjaitan et al., 2020](#)) and environmentally friendly entrepreneurship ([Burhanudin et al., 2023](#)) have the potential to drive inclusive economic growth while preserving the environment. An integrated approach involving digital literacy for Micro, Small and Medium Enterprises (MSMEs) is also considered important to encourage the adaptation of green technology and build environmental awareness ([Regif et al., 2023](#)), so collaboration between sectors is key to realizing social welfare and economic sustainability simultaneously.

It is thus essential to integrate green economy principles into the development of a sustainable halal industry in Indonesia. The halal industry, which has been a driver of national economic growth, has shown a strategic role in supporting social inclusion, welfare improvement, and job creation kerja ([Gandasari et al., 2024](#)). On the other hand, the green economy paradigm emphasizes sustainability by optimizing resource efficiency, reducing carbon emissions, and applying environmentally friendly economic principles ([Darmayanti et al., 2023](#)). The synergy between the two concepts has the

potential to encourage economic growth that is not only oriented towards financial benefits but also environmental and social sustainability ([Hasanah & Supriani, 2022](#)).

However, previous studies tend to focus on the technical aspects of halal certification, the application of sharia principles, or strategies to strengthen the halal value chain partially ([Ma'arif & Firdaus, 2024](#)). The lack of comprehensive literature in integrating the green economy framework with the development of the halal industry, especially in the context of Indonesia's economic dynamics, is a research gap that still needs to be answered. In addition, most previous studies have not elaborated in depth on the relationship between Islamic financial instruments, green technology innovation, and the application of sustainability principles in the halal industry, so there is still room for the development of an integrative model that is able to address environmental and economic challenges simultaneously.

The novelty of this research lies in the holistic approach that combines the principles of maqasid al-sharia (benefit of the people, justice, and sustainability) with the green economy framework in an effort to identify innovative strategies to support the sustainability of the halal industry. This approach is expected to address the gap in the existing literature by presenting a new conceptual model that integrates environmental, economic and social aspects simultaneously through synergies between Islamic financial mechanisms, digital technology and green supply chain practices. Thus, this research offers a contribution in providing an empirical as well as theoretical basis for policy makers to optimize the implementation and development of the halal industry in the green economy era.

As a result, this study aims to analyze the application of the green economy framework in the sustainability of the halal industry in Indonesia, the driving and inhibiting factors, the contribution to the sustainability of the halal industry, and identify strategies that can

support the development of a green economy-based halal industry.

2. Literature Review

2.1 Green Economy

Green economy is a model of economic development that explicitly integrates economic growth with environmental conservation and sustainable improvement of social quality (Amini et al., 2024). This concept emphasizes the need for efficient use of natural resources and the use of environmentally friendly technology, so that economic growth is not carried out at the expense of ecosystems and cross-generational welfare. This is in line with Islamic values as stated in QS. Al-A'raf: 56 which means: "*And do not make corruption in the earth, after (Allah) has made it good, and pray to Him with fear and hope. Surely the mercy of Allah is very near to those who do good*". This verse emphasizes the prohibition against environmental damage (*ifsād fī al-ard*), and indicates that humans are the khalifah (representative) of Allah on earth who is responsible for preserving it. Man as khalifah is stated in Qs Al-Baqarah: 30 which means: "*Remember when your Lord said to the angels, I will make a caliph on the earth...*". Caliph means caretaker and manager, not exploiter. This is the basis for the principle of sustainable development.

Green economy absorbs ethical values and development philosophies that prioritize both environmental and social justice by involving various stakeholders, including the government, private sector, and society (Maidasari et al., 2023). The Maqashid al-Syari'ah perspective emphasizes that development must prioritize sustainability and justice as the basis for managing resources to achieve the welfare of the people. On the other hand, the implementation of the green economy is also closely related to the achievement of the Sustainable Development Goals (SDGs), where harmonization efforts between economic, social, and environmental aspects are key in the national development strategy (Kristianto, 2020).

In a practical context, the green economy has been adopted by various sectors, ranging from micro, small and medium enterprises (MSMEs) to the renewable energy sector and green industries. For example, training on the application of the green economy for MSMEs aims to enable them to increase productivity while preserving the environment, thus creating a synergy between economic growth and environmental sustainability. On the other hand, the strategy of using renewable energy and green innovation in the industrial sector emphasizes that the transformation to a green economy must be accompanied by a paradigm shift in economic management and policy, including support for green innovation which is the foundation of sustainable economic growth (Maidasari et al., 2023).

Therefore, the green economy is a conceptual and practical framework that combines economic, social and environmental components in one set of development strategies. It seeks to ensure that economic activity does not only prioritize financial returns, but also safeguards natural resources and social welfare from being degraded, so that the development carried out today is able to maintain the quality of life in the future.

Recent literature emphasizes that the green economy is not merely an environmental policy instrument, but a transformation of production and consumption systems towards resource efficiency and low-emission technological innovation. In the context of Islam, the principle of prohibition of corruption (*fasād*) and the concept of khalifah provide normative legitimacy for sustainability practices.

2.2 Halal Industries

The halal industry is a comprehensive economic ecosystem based on sharia principles, where all production activities, distribution, and consumption of goods and services are guaranteed halal in accordance with Islamic norms and standards (Afridah & Lubis, 2024). This definition covers the entire

value chain, from the selection of raw materials, production processes, to marketing and consumption, with the aim of ensuring that the products produced are not only halal (not containing haram substances) but also thayyib (good, healthy, and safe). This principle is very strong in the Qur'an and Sunnah. The command to eat from Halal as stated in QS Al-Baqarah: 168 which means: *"O people! Eat of that which is lawful and good which is found on the earth, and do not follow the steps of the devil. Indeed, the devil is a real enemy to you"*.

Halal is shar'i legality, while thayyib is quality, both of which are pillars in the halal industry. Furthermore, the Hadith of the Prophet Muhammad ﷺ regarding halal, haram, and shubhat matters, is used as the main foundation: *"Verily, the lawful is clear and the unlawful is clear. In between there are things that are ambiguous (shubhat), which most people do not know. Whoever refrains from doubtful matters has purified his religion and his honor. And whoever falls into a doubtful matter has fallen into the forbidden..."* (Bukhari No. 52, Muslim No. 1599). This Hadith emphasizes the importance of caution in consumption and economic transactions, so that it becomes a basic principle in halal standards, not only avoiding the haram, but also avoiding things that are doubtful (syubhat). This provides the legal basis for halal certification and the development of the halal industry.

The halal industry is not limited to the food sector alone but has expanded to various sectors such as cosmetics, pharmaceuticals, fashion, hospitality and financial services. This reflects that the application of sharia values in an industrial context not only provides legal certainty for Muslim consumers, but also offers competitive market opportunities at the global level. In addition, this transformation does not only involve technical and operational aspects, but also touches the dimensions of managerial innovation to improve the quality of sustainable products and services, thus supporting the overall growth of the Islamic economy ([Ernayani & Firman, 2024](#)). Within this framework, the halal industry plays a

strategic role in supporting ethical and inclusive economic development, by bridging the balance between sharia principles and the demands of a globalized modern market, and contributing to the achievement of sustainability in various economic sectors.

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2.3 Sustainability in Islamic Economic Perspective

Sustainability in the perspective of Islamic economics is a concept that involves the integration of sharia principles with efforts to achieve inclusive, ethical, and environmentally friendly economic growth. This approach emphasizes the use of Islamic financial instruments such as sukuk, productive waqf, and sustainability-oriented financing structures, so that they not only encourage financial economic growth, but also have a positive impact on social and environmental aspects ([Aam & Muhammad, 2022](#)).

In the context of the halal industry, the role of institutions such as the Halal Center is important to improve the halal economy in a sustainable manner. The institution is not only tasked with certifying but also encouraging innovation and compliance with standards that support global competitiveness as well as domestic market sustainability ([Lubis & Syibromalisi, 2023](#)). In addition, the development of halal MSMEs that carry the concept of halalan thayyiban has been proven to integrate sustainability aspects in their business operations, especially through the adoption of technology and ethical business practices, which in turn strengthens their contribution to the national economy.

The concept of sustainability is also reflected in efforts to achieve sustainable development goals (SDGs) through the halal entrepreneurship success index. This approach shows that halal entrepreneurship not only focuses on achieving economic performance but also pays attention to social and environmental dimensions, thus making a comprehensive contribution to sustainable development (Trimulato et al., 2022).

Furthermore, the reciprocal relationship between the green economy and Islamic finance is a topic that has received particular attention. This synergy is further strengthened by the Islamic green finance approach that integrates sustainability values into halal supply chains, thus expanding the scope and impact of Islamic economics in a global context.

Environmental protection can be understood as an extension of *hifz al-nafs* (protection of life), *hifz al-nasl* (continuity of generations), and *hifz al-māl* (protection of property). Thus, the integration of the green economy into the halal industry is not merely a policy choice, but a normative consequence of *maqāsid*.

3. Research Methods

This study uses the narrative literature review method. Literature was obtained through the Scopus, Web of Science, and Google Scholar databases. Inclusion criteria: articles published between 2019 and 2025, relevant to the green economy and halal

industry, with conceptual or empirical contributions. The analysis was conducted through comparative conceptual analysis. Data analysis in this study was carried out in three stages, namely data reduction, data grouping, and data verification. Data reduction in this study was carried out by selecting all data through cutting and simplifying the existing data in accordance with the research topic. Next, the reduced data was categorized according to the research topic, Green Economy Framework for the Sustainability of the Halal Industry in Indonesia. The final stage was data verification to draw conclusions, which was the researcher's interpretation of the data. Verification was carried out using the triangulation technique, namely comparing findings across studies and validating the *maqāsid al-sharī'ah* framework.

4. Results and Discussion

4.1 Research Results

1. Framework for Green Economy for Sustainability Halal Industry in Indonesia

Based on the literature review of related books and journals, the green economy Framework model in supporting the sustainability of the Indonesian halal industry can be seen in the following scheme:

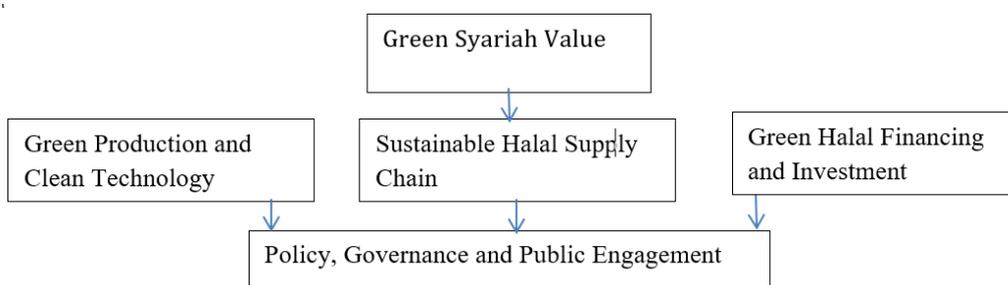


Figure 1. Green Economy Framework for halal Industry sustainability

The results of the study show that the sustainability of the halal industry cannot be understood solely as compliance with product halal standards, but must be placed within the broader framework of sustainable

development. From an Islamic economic perspective, the concept of *halalan tayyiban* contains ethical, health, and environmental sustainability dimensions that emphasize that production activities must provide benefits

(masalah) while minimizing damage (mafsadah). Thus, the integration of sharia values and green economy principles represents an expansion of the implementation of maqāṣid al-sharī'ah values in the modern industrial system, particularly in the dimensions of protecting life, property, and the environment.

The resulting Green Economy Framework model shows that the sustainability of the halal industry depends on the structural interrelationship between normative values, technological innovation, market mechanisms, and institutional governance.

a. Green Syariah Value

Green Sharia Value serves as a normative foundation that guides the strategic orientation of the halal industry towards ecologically responsible production practices. The integration of halal certification with environmental standards such as ISO 14001 or SNI Eco-Label shows that halal standards can be developed into a production ethics framework that not only emphasizes sharia compliance but also resource efficiency and environmental protection. This approach expands the meaning of halal from mere religious legitimacy to a more comprehensive paradigm of industrial sustainability ([Adiningtyas & Yunus, 2024](#)).

b. Green Production and Clean Technology

From the perspective of industrial sustainability theory, the transformation towards a green economy is highly dependent on technological innovation and production efficiency. Research findings show that the application of Green Production and Clean Technology is an important instrument in reducing energy intensity and waste in halal production processes. The use of environmentally friendly technologies, including the use of renewable energy in the halal food industry, not only contributes to reducing ecological impacts but also improves the operational efficiency of companies ([Koczar et al., 2020](#); [Hasnan et al., 2024](#)).

In addition, the adoption of green technology in the supply chain has been proven to improve overall industrial operational performance and competitiveness ([Harsanto et al., 2024](#)). Within the framework of sustainable innovation theory, this technological transformation acts as a mechanism for industry adaptation to global market demands that increasingly emphasize sustainability and environmental responsibility.

c. Sustainable Halal Supply Chain

The findings of the study also emphasize the importance of the Sustainable Halal Supply Chain approach in ensuring the integrity of halal products throughout the industry value chain. From a supply chain management perspective, product halalness is not only determined at the production stage, but also encompasses the distribution, logistics, and consumption processes. Therefore, the integration of halal standards with sustainability principles in the supply chain is an important element in building domestic and global market trust ([Hasnan & Kohda, 2023](#)).

The implementation of tracking systems such as Supply Chain Operation Reference (SCOR) and digital traceability technology enables increased transparency and accountability in halal supply chain management ([Dilla & Fathurohman, 2021](#)). In the context of a global market that increasingly demands transparency and sustainability, this tracking system serves as a mechanism to strengthen the reputation of Indonesia's halal industry.

d. Green Halal Financing and Investment

From an institutional economic perspective, the transformation towards a sustainable halal industry requires the support of a financial system that is in line with sharia principles and sustainability. Research findings indicate that Green Halal Financing and Investment are strategic instruments in accelerating the adoption of green technology and production innovation. Financing instruments such as green sukuk provide

alternative funding for halal industry projects that are oriented towards environmental sustainability ([Koczar et al., 2020](#); [Ahmad et al., 2023](#)).

In addition, expanding access to green financing also has a significant impact on strengthening the halal MSME ecosystem, which is the backbone of the halal industry in Indonesia. Thus, the integration between the Islamic financial system and sustainable financing instruments is an important factor in driving the structural transformation of the halal industry towards a more inclusive and sustainable economic model.

e. Policy, Governance, and Public Engagement

The results of the study also confirm that the success of green economy implementation in the halal industry is not only determined by technological and financing factors, but also by the effectiveness of institutional governance. The Policy, Governance, and Public Engagement component shows that the integration of halal and environmental policies requires strong cross-sectoral coordination. The green halal policy initiatives developed by BPJPH and KNEKS demonstrate the importance of a regulatory approach that is capable of integrating halal standards with environmental sustainability standards ([Ahmad et al., 2023](#)).

Thus, the Green Economy Framework developed in this study shows that the sustainability of the halal industry is the result of synergy between sharia values, technological innovation, green financing systems, and collaborative governance. The integration of these four elements is an important foundation in strengthening Indonesia's position as a global halal industry center that is not only oriented towards sharia compliance, but also towards economic, social, and environmental sustainability.

2. Drivers and Inhibitors of Green Economy Implementation in the Halal Industry in Indonesia

Analysis of driving and inhibiting factors shows that the implementation of a green

economy in the halal industry is influenced by the interaction between structural, institutional, and cultural factors. Government policy support, increased consumer awareness, and digital technology innovation are catalysts in accelerating the adoption of a green economy ([Viariani et al., 2024](#); [Gunawan & Hendayani, 2024](#)). However, the limited availability of human resources with expertise in green technology, infrastructure constraints, and resistance to change in traditional production practices remain significant barriers ([Herianti et al., 2023](#)).

3. Contribution of Green Economy Framework Implementation to the Economic, Social, and Environmental Sustainability of the Halal Industry

The application of the green economy framework in the halal industry makes a significant contribution to sustainability from an economic, social and environmental perspective. Economically, the application of green economy principles in the halal industry can increase competitiveness and open up export and investment opportunities, which contribute to national economic growth. In addition, strengthening the halal ecosystem through a green value chain approach supports more efficient management of assets and resources, which in turn increases the contribution of the halal industry in the framework of national income and foreign investment ([Jubba et al., 2023](#)).

From a social perspective, the application of green economy in the halal industry plays an important role in improving community welfare through quality and inclusive job creation. The green business model extension initiative for halal MSMEs, for example, not only encourages an increase in digital and technical workforce capabilities, but also strengthens awareness and sustainability values as outlined in the principles of Islamic economics. These efforts are in line with the implementation of halal certification which increasingly prioritizes aspects of ethics and social responsibility, thus empowering local

communities and fostering consumer confidence in environmentally sound halal products (Fathihani et al., 2024).

In terms of the environment, the green economy makes a real contribution by encouraging the application of environmentally friendly technology and sustainable waste management in the halal industry supply chain. The implementation of production standards that integrate eco-labels and green logistics is a concrete example of how environmental management can be optimized without ignoring the principle of halalness. This approach not only reduces the negative impact on the environment through reducing carbon emissions and utilizing renewable energy, but also strengthens the reputation of the halal industry as a sector that is responsible for nature conservation, in line with the vision of global sustainability (Anwar, 2022).

4. Strategies that can be Developed to Integrate the Green Economy in the Development of a Sustainable Halal Industry in Indonesia

The integration of green economics into the development of the halal industry requires a systemic strategy through the strengthening of technological innovation, human resource capacity, policy support, and institutional collaboration. These efforts aim to ensure that the development of the halal industry is not only oriented towards sharia compliance, but also towards resource efficiency and environmental sustainability.

This integration strategy can be implemented through increased investment in research and development (R&D) to encourage green technology innovation and production efficiency (Rahman, 2024), the application of Green Human Resource Management (GHRM) to build an organizational culture that supports sustainable practices (R. Handayani et al., 2025), and the development of Green Innovation Districts as centers for innovation collaboration between government, industry, and educational institutions (Badruzzuhad & Firmansyah, 2023). In addition, strengthening

integrated certification standards that combine halal and eco-label criteria can increase product credibility while encouraging environmentally friendly production practices (Gunawan & Hendayani, 2024).

Digital transformation through the use of e-commerce platforms also plays a role in expanding market access for sustainable halal products, which is strengthened through Triple Helix collaboration between the government, academics, and industry players in policy development, research, and innovation (Fitria et al., 2023; Hariani, 2024). The implementation of this strategy needs to be supported by strengthening regulations and fiscal incentives for green investment, as well as increasing technical assistance and digital literacy for halal MSMEs in order to overcome capacity gaps in the implementation of green economy practices.

Conceptually, the development of a sustainable halal industry requires an integrative and systemic approach. Synergy between technological innovation, human resource capacity building, policy support, and institutional collaboration are key factors in driving industrial transformation. The integration of these various elements enables the formation of a halal industry ecosystem that is not only economically competitive, but also socially and environmentally sustainable.

4.2 Research Discussion

1. Interpretation of Key Findings

The findings of this study indicate that the sustainability of the halal industry in Indonesia cannot be achieved solely through an approach that focuses on compliance with halal product standards. An approach that places too much emphasis on halal certification has the potential to simplify the concept of halal into a mere normative legitimization, without considering the broader dimensions of sustainability. From an Islamic economic perspective, the concept of halalan tayyiban intrinsically contains dimensions of production ethics, health, and ecological responsibility that require economic activities to provide benefits

while minimizing environmental damage ([D. I. Handayani et al., 2021](#); [Adiningtyas & Yunus, 2024](#)). Therefore, the integration of sharia values and green economy principles is important to reconstruct halal industry practices to be in line with the objectives of *maqāṣid al-sharī'ah* in the context of sustainable development.

The Green Economy Framework model produced in this study emphasizes that the sustainability of the halal industry is the result of systemic interactions between normative values, technological innovation, market mechanisms, and institutional governance. In this model, Green Sharia Value serves as the ethical foundation that determines the strategic direction of the industry, while green technological innovation and sustainable investment are the main mechanisms in driving structural transformation of the production system ([Koczar et al., 2020](#); [Ahmad et al., 2023](#)). Thus, the sustainability of the halal industry depends not only on compliance with halal standards, but also on the industry's ability to adopt technological innovations and production systems that are more efficient and environmentally friendly.

However, these findings also show that the integration of sharia principles and the green economy still faces structural challenges, particularly in relation to limited human resources, technological infrastructure, and institutional coordination. This situation indicates that the transformation towards a sustainable halal industry requires not only technological innovation, but also changes in the industrial governance system and public policies that support the wider implementation of the green economy.

2. Comparison with Previous Studies

The results of this study are in line with various previous studies that emphasize the importance of integrating sustainability principles and halal industry development. [Adiningtyas & Yunus \(2024\)](#) show that integrating halal standards and environmental standards such as ISO 14001 and SNI Eco-Label

can encourage more environmentally responsible production practices. These findings reinforce the argument that the concept of halal has the potential to evolve into a more comprehensive ethical production framework within modern industrial systems.

In addition, this study also supports the findings of [Koczar et al. \(2020\)](#) and [Hasnan et al. \(2024\)](#), which confirm that green technology innovation is an important factor in improving energy efficiency, reducing production waste, and lowering the ecological impact of industrial activities. The implementation of green technology in the industrial supply chain has also been proven to improve operational efficiency and the competitiveness of companies in a global market that increasingly demands sustainability standards ([Harsanto et al., 2024](#)).

However, most previous studies still discuss aspects of halal industry sustainability partially, for example, only in terms of technology, supply chain, or sharia financing. This study shows that such a partial approach has limitations in explaining the complexity of the halal industry's transformation towards a sustainable economic system. Therefore, an integrative approach that connects the dimensions of value, technology, financing, and governance is important in understanding the dynamics of halal industry sustainability more comprehensively.

3. Theoretical Contributions

Theoretically, this study contributes to the development of literature on the relationship between Islamic economics, green economics, and halal industry management. This study expands the interpretation of the concept of *halalan ṭayyiban* by placing it as a normative foundation in the development of an industry system oriented towards ecological sustainability and social justice.

Furthermore, this study develops a conceptual model of the Green Economy Framework for Halal Industry Sustainability that integrates five main dimensions, namely sharia values, technological innovation,

sustainable supply chain management, sharia-based green financing, and institutional governance. This model provides a theoretical contribution by bridging two bodies of literature that have developed separately, namely literature on halal industry development and literature on the green economy.

From an Islamic economic perspective, this integration also shows that the implementation of *maqāsid al-sharī'ah* in modern industrial systems is not only related to compliance with Sharia law, but also includes the protection of natural resources, efficient use of resources, and sustainable improvement of social welfare.

4. Practical and Policy Implications

From a practical perspective, the results of this study indicate that halal industry players need to adopt a more innovative and resource-efficient production approach. The implementation of clean technology and environmentally friendly production management systems can improve operational efficiency while strengthening the reputation of the halal industry in global markets that are increasingly sensitive to sustainability issues ([Koczar et al., 2020](#); [Hasnan et al., 2024](#)).

From a policy perspective, this study emphasizes the importance of the government's role in creating a regulatory ecosystem that supports the integration of halal standards and environmental sustainability standards. Policy support through fiscal incentives, the development of green financing instruments, and the improvement of human resource capacity are important factors in accelerating the transformation of the halal industry towards a more sustainable production system ([Rahman, 2024](#); [Gunawan & Hendayani, 2024](#)).

However, the findings of this study also show that policies that only focus on halal certification without considering environmental sustainability dimensions have the potential to limit the long-term competitiveness of the halal industry. In the

context of a global market that increasingly emphasizes Environmental, Social, and Governance (ESG) standards, the halal industry needs to develop production strategies that not only meet halal standards but also meet environmental sustainability demands.

5. Integration with the Research Gap

This study contributes to filling the research gap that has separated discussions on the halal industry and the green economy. Most previous studies have focused more on halal certification or halal supply chain development, while the environmental sustainability dimension has not been widely integrated into the halal industry analysis framework.

By developing the Green Economy Framework model, this study shows that the sustainability of the halal industry requires a more integrative approach that connects the dimensions of sharia values, technological innovation, green financing, and institutional governance. This approach provides a new perspective in understanding the transformation of the halal industry as part of the sustainable economic development agenda.

6. Acknowledgement of Study Limitations

Although this study provides important conceptual contributions, several limitations should be acknowledged. First, this study employs a narrative literature review approach; therefore, the findings remain conceptual and have not yet been empirically validated through quantitative analysis or field-based investigation. Second, the study focuses specifically on the context of the halal industry in Indonesia, which means that the findings may not fully capture the dynamics of green economy implementation in halal industries operating under different institutional, regulatory, and socio-economic environments in other countries. Third, the analysis does not explicitly examine variations in the implementation of green economy practices across different subsectors of the halal industry, each of which may possess

distinct production structures and sustainability challenges. Accordingly, future research is recommended to adopt empirical approaches that examine more rigorously the relationship between green economy implementation and the sustainability performance of the halal industry across various subsectors and contexts.

5. Conclusion

5.1 Summary of Key Findings

This study shows that the sustainability of the halal industry in Indonesia cannot be achieved through a sharia compliance approach alone, but requires systemic integration with green economy principles. The resulting Green Economy Framework model includes five main components, namely Green Sharia Value, Green Production and Clean Technology, Sustainable Halal Supply Chain, Green Halal Financing and Investment, as well as Policy, Governance, and Public Engagement, which synergistically form a halal industry ecosystem that not only meets halal and *ṭayyib* principles, but is also ecologically efficient and socio-economically sustainable.

The findings also show that the implementation of a green economy is driven by regulatory support, increased consumer awareness, technological innovation, and collaboration among stakeholders. However, a number of obstacles remain, particularly limited human resources in the mastery of green technology, limited supporting infrastructure, and low sustainability literacy, especially among halal MSMEs.

5.2 Theoretical Contributions

Theoretically, this study contributes to the development of literature on the integration of *maqāṣid al-sharī'ah* with the green economy paradigm in the context of the halal industry. The resulting conceptual model broadens the understanding of halal from mere normative compliance to a multidimensional sustainability paradigm that encompasses economic, social, and environmental dimensions. Thus, this study offers an

integrative framework that can serve as a basis for the development of theories on sustainable halal industry from the perspective of Islamic economics and sustainable development.

5.3 Practical and Policy Implications

In practical terms, the findings of this study provide strategic direction for the government, industry players, and Islamic financial institutions in developing a sustainable halal industry. The government needs to strengthen policies that integrate halal certification standards with environmental standards, while providing fiscal incentives and regulatory support for green investment in the halal industry sector.

For industry players, especially halal MSMEs, the application of environmentally friendly production technologies and the strengthening of sustainable halal supply chains are important steps to improve production efficiency and global competitiveness. On the other hand, Islamic financial institutions need to expand access to Sharia-based green financing instruments, such as green *sukuk* and sustainable financing for the halal sector. Cross-sector collaboration through a triple helix approach (government, academia, and industry) is also key to accelerating innovation and the implementation of a green economy in the halal sector.

5.4 Limitations of the Study

This study has several limitations. First, the approach used is a narrative literature review, so the findings are still conceptual and not supported by quantitative empirical testing. Second, this study emphasizes the analysis of conceptual frameworks at the macro level of the halal industry, so it does not describe in depth the practical implementation in specific industrial sectors or at the MSME level.

5.5 Directions for Future Research

Further research is recommended to develop quantitative empirical models to

measure more accurately the impact of green economy implementation on halal industry performance, in terms of economic, social, and environmental aspects. In addition, future studies could also explore specific sector analyses, such as the halal food, cosmetics, or halal tourism industries, to understand the dynamics of green economy implementation in each sub-sector.

Pendekatan mixed methods yang menggabungkan analisis kuantitatif dan studi kasus lapangan juga berpotensi memberikan gambaran yang lebih komprehensif mengenai praktik integrasi ekonomi hijau dalam industri halal di tingkat regional maupun nasional. Dengan demikian, penelitian lanjutan diharapkan dapat memperkuat basis empiris bagi pengembangan kebijakan dan strategi transformasi menuju industri halal yang hijau, inklusif, dan berkelanjutan.

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