ISLAMIC GREEN ECONOMY: A BIBLIOMETRIC ANALYSIS

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ABSTRACT
The ecological crisis has an impact on economic lines in various countries in the world. The concept of green economy exists to mitigate the comprehensive and unified in dealing with the climate crisis and ecological crisis. The concept of green economy was in line with the value in the principles or concepts of Islamic finance. This study aims to identify and analyze research trends with theme Islamic green economy. The data source in this research was taken from the Scopus database, by input the keywords "Green Economy" OR "Islamic Economy" AND "Islamic Green Economy" into the document search field. As a result, 10 journal articles relevant to the research topic were found. Research using VOSviewer indicates a limited body of literature on the Islamic green economy, comprising 10 articles from 2019 to 2024 in Scopus. Contributions spanned countries like Indonesia, Malaysia, the United States, Pakistan, and Qatar, with Qatar pioneering early research and the United States leading in publications. Despite geographic diversity, there's a notable lack of collaboration. The Accounting Research Institute at Universiti Teknologi MARA, Malaysia, initiated research. Co-occurrence analysis revealed 34 keywords in five clusters, focusing on themes like Islamic Social Capital, Maqasid Shariah, and Zakat. Density visualization indicates that topics such as green economy and green sukuk are frequently explored in the literature.

Keywords: Bibliometric, Islamic Green Economy, Fair, Sustainable

INTRODUCTION

Over the years, the earth has experienced a lot of ecosystem degradation as the human population will reach 8 billion by 2022 and its already exceeding the capacity of the universe when combined with a much higher per capita consumption of materials and energy. In addition, deforestation is at an all-time high, due to forest fires, record heat waves, erratic weather, and flooding that is spreading across the globe with rising sea levels. In Indonesia, the total forest cover lost from 2001 to 2019 has reached around 27.7 million hectares, mostly due to land conversion for commodity monoculture plantations and mining. This ecological crisis has an impact on economic lines in various countries in the world. In 2019, around US$ 44 trillion of the global economy's value, equivalent to half of the global Gross Domestic Product, was derived from the use of nature. (Greenpeace Indonesia & INDEF, 2021)

The concept of green economy exists to mitigate the comprehensive and unified in dealing with the climate crisis and ecological crisis. Increased awareness of climate crisis mitigation and ecological crisis through green economy is done through the United Nations Conference on Environment and Development (UNCED)/Rio conference held from 1992 to 2012 (Rio+20 or Earth Summit 2012) aimed at reconciling the economic and environmental goals of the global community. According to the UNEP (2011) a green economy results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. In its simplest expression, a green economy can be thought of as one that is low-carbon, resource-efficient, and socially inclusive.

The concept of green economy was in line with the value in the principles or concepts of Islamic finance. The green economy is considered Islamic finance as a notion that can foster moral accountability. By considering the effects of economic activity on the environment, this notion respects the environment. Islamic economics views people as

God's stewards on earth, or "khalifa," accountable for everyone's well-being, including the environment.

The concept of sustainable development and the green economy are supported by certain verses in the Qur'an (QS. 54:49) through the principle of ***al-Mizan*** (*balancing*) that mandates the ecosystem's stability and balance due to responsible communal needs. The other Islamic finance concept that supports green economy is **Wasatiyyah** within the context of Islamic sustainable business would suggest that investments should not cause environmental harm or financial loss.

Recently, there have been several studies that discuss the Islamic green economy. Among them is research conducted by Rusydina 2022, to determine the extent of the development of the green economy research from 1961 to 2021, the statistics reveal an increasing trend in publication research on this topic.

More research related to the Islamic green economy was conducted by Iskandar 2019, this research shows that the concept of Green Economy and Islamic Economics is a concept that has many of the same values, especially from the *Maqashid al-Syari'ah* perspective, which means human development, nature, and also aims for human welfare (welfare society). An implementable, reliable, and comprehensive Green Economy implementation model in Indonesia should be a truly green economic model that is relevant to the characteristics of the Indonesian nation based on philosophical Islamic Eco-ethics that are in harmony with the sociocultural of Indonesian society and have legal basis.

Another study was conducted by Harahap 2023, this research revealed that Islamic goals in Islamic finance are in line with the SDGs. Islamic finance has a role in encouraging sustainable development. Broadly speaking, publication findings from researchers in various countries have revealed that Islamic finance, through its financial instruments such as waqf, zakat, and Sukuk, prioritizes social welfare in its business activities, which means protection of life or self (an-Nafs) and supports no poverty in the SDGs. This is in line with the purpose of *Maqasid al-Shariah*, which protects humans from the concentration of wealth.

Indonesia is the ideal ecosystem to implement the concept of Islamic green economy based on two aspects. **In terms of ecosystem aspects**, the condition of Indonesia as a second country with a high level of terrestrial biodiversity and currently experiencing extensive tropical forest loss, as well as high cases of logging and illegal forest clearing makes the concept of Islamic green economy the right concept to mitigate the potential for natural damage.

In terms of socio-cultural, Indonesian society is considered to be easy to implement the concept of Islamic green economy. This is based on the socio-cultural conditions of Indonesian society which is a country with a high level of religion and has a Muslim population of 87.18%. In addition, based on the mandate of the 1945 Constitution no 29 article 1 which states that the state is based on the Almighty God is an ideal indication for Indonesia to implement the Islamic green economy.

Observing the great opportunities in the application of the Islamic green economy in Indonesia and its positive impact, research on the Islamic green economy needs to be developed again with different approaches, dimensions, methodologies, and goals to increase the level of exploration of the concept of Islamic green economy. Therefore, it is a good moment to synthesize and harmonize the existing literature to fully comprehend all of the issues raised in the context of the green economy.

LITERATURE REVIEW

2.1 Green Economy Concept

In order to develop a comprehensive prevention of climate change without considering the economic component, the concept of the "green economy" represents a fundamental move toward a more balanced aspect of the new economy. In addition, researchers connect green economies and growth to potential advancements in the eco-industry sector, such as the shift from resource-saving technologies to downstream environmental safety technologies, which are dependent on innovation and competitive marketplaces.

The 2008–2009 global financial crises led rise to the concept of the "green economy" in general. The fear of the economic downturn, inequality, and climate change gave rise to the global consensus on the green economy. Pearce et al. (1989) initially put forward this idea, and after 2009, the green economy developed into a more comprehensive set of policies. The international green economy was centered around the United Nations Conference on Sustainable Development (UNCSD, or Rio+20) in 2012. Consequently, the conference acknowledged that nations are facing dangers associated with climate change as well as heightened competition for environmental resources. To promote sustainable development, a transition from a brown to a green economy must be undertaken by sociocultural, economic, and environmental movements. (Setiyowati et al., 2023)

There was cautious optimism in the run-up to Rio+20 that the conference would make enough progress to provide the idea the necessary financial and political backing, or at the very least recognition of a more prominent position in international policy deliberations. Income and employment development in a green economy may be influenced by public and private investments that reduce pollution and carbon emissions, enhance energy and resource efficiency, and prevent the loss of biodiversity and ecosystem services. To encourage these investments, specific state funding, policy changes, and regulatory alterations are needed. Additionally, maintaining, improving, and finding creative alternatives for the environmental asset is necessary to ensure the success of the green economy's implementation. (The United Nations Environment Program (UNEP), 2011)

By drastically lowering environmental dangers and resource exhaustibility, the green economy seeks to achieve social integration, reduced carbon emissions, and sensible resource utilization. Utilizing renewable energy sources, such as wind energy, which presently provides 47% of power, 25% of heating, and 22% of transportation, is encouraged by the green economy. Other alternative energy sources, like solar energy, are growing at a rate of 66% every year.

The green economy boosts social fairness in all spheres and generates employment. The majority of research indicates a gain in employment of 0.5% to 2% (or roughly 15–60 million more employment) worldwide. Initiating a fresh wave of investment in the real economy, where developing or emerging nations have enormous potential, is another way to achieve green growth. One example is the estimated $230 billion in annual international investment to reduce garbage disposal, which could support an extra 8 million full-time jobs in developing nations. (Setiyowati et al., 2023.)

2.2 The Principles of Green Economy

According to global green growth, green economy conducts five principles; **Well-being**, A green economy must create genuine, sustained, shared well-being, going beyond mere monetary wealth to prioritize human development, health, happiness, education, and community; **Justice**, A green economy emphasizes equity, equality, community cohesion, social justice, and supporting human rights – especially the rights of marginalized minorities. It seeks a just transition and serves the interests of all citizens, including those yet to be born; **Planetary boundaries**, A green economy recognizes that all human flourishing depends upon a healthy natural world. It defends nature's functions and limits, and protects biodiversity, soil, water, air, and other ecosystem capitals; **Efficiency & sufficiency**, A green economy is low-carbon, diverse, and circular. It recognises that our single biggest economic challenge is the need to create prosperity within planetary boundaries and align economic incentives with true costs to society; **Good governance**, A green economy build institutions that combine dynamic democratic accountability, relevant metrics, sound science, and local knowledge. Civil life prioritizes public participation, social dialogue, informed consent, transparency, and accountability. (*5-Principles-of-GE-One-Pager-250619*, n.d.)

2.3 Islamic Green Economy

Recent studies have shown that the convergence between Islamic finance, Islamic law, and the Sustainable Development Goals (SDGs) is a significant area of interest. Sustainable human development is the aim of both the SDGs and Islamic law, as embodied in *Maqasid al-Shariah*. Islamic finance is essential to achieving the SDGs since it is an application of Islamic law. Previous research on Islamic law, Islamic finances, and the SDGs has been scattered, raising concerns about Islamic finance's potential impact on the SDGs.

To investigate this intersection, Harahap et al., 2023 carried out a methodical review of the literature, choosing articles that concentrated on Islamic finance and excluding those that just covered Islamic nations. Authors discovered through theme analysis that Islamic finances greatly contributes to the SDGs, especially in the area of supporting humanity. This highlights the significance of governmental backing and regulatory frameworks in advancing Islamic finance for the accomplishment of SDGs. Islamic finance principles are in line with the notion of the green economy, which emphasizes maintaining a balance between environmental sustainability and economic prosperity.

Rusydiana & Syamsul Bahri, 2022, examined 1183 publications from the Scopus database in order to offer qualitative insights into the evolution of the literature on the green economy. Researchers discovered that Islamic finance regulations facilitate the application of the green economy theory, as well as that sukuk could be a useful tool for advancing green projects in the Islamic finance sector. This demonstrates how Islamic finance could interact with environmental sustainability objectives, providing opportunities for more study and advancement in this field.

On a global scale along with within Islamic banks, there has been a movement in banking operations toward more environmentally friendly activities. In their investigation of Pakistani Islamic banks' green banking practices, (I. U. Khan et al., 2024) emphasized the importance of environmental consciousness in boosting a bank's reputation. According to the research, green banking practices have a beneficial impact on banks' reputations. These practices include those connected to personnel, daily operations, consumers, and policies. Furthermore, the moderating influence of environmental consciousness on these associations emphasizes how crucial it is for Islamic banking institutions to support green activities in order to improve their standing and support environmental sustainability.

In addition, Naeem et al., 2023 investigated the tail risk correlation among conventional, religious, and sustainable investing in financial markets. Their study, which examined market trends from 2008 to 2021 using a neural network quantile regression approach, demonstrated the advantages of sustainable assets' diversification during times of crisis. The results highlight the role that sustainable investments play in reducing tail risks and provide guidance to policymakers, investors, and portfolio managers on how to use sustainable and green investments to diversify risk.

In conclusion, a study on the Islamic green economy has shown how Islamic finance can help accomplish sustainable development objectives, encourage eco-friendly projects, improve bank image, and spread risk across financial markets. The integration of environmental sustainability goals with Islamic finance principles can be further advanced by researchers, policymakers, and practitioners with the help of these useful insights.

2.4 Green Economy Principles from the perspective of Islam

The concept of sustainable development can be discovered in Islam. Muslim scholars have expounded upon the fundamental principles of the Green Economy concept by referring to hadith and the Qur'an. Moreover, the content of Maqashid al-Syariah already contains this concept.

Islamic Eco-Ethics comprises the fundamental principles of Islamic ethics, including al-'adl (justice), istihan (preference for the better), maslahah (public needs), 'urf (custom), istishlah (improvement), and I'tidal (harmony). These principles represent the standard by which humans ought to behave in harmony and justice with the natural world. The fundamental principles that must be followed have been laid down by Islamic eco-ethics, and certain activities must be avoided since they may lead to an imbalance between humans and the natural world. The fundamental principles in Islamic Eco-Ethics are at-tauhid (oneness of Allah) and al-khilafah (human as the representative of Allah). The concept of al-khilafah includes trust, I'mar al-ardh (earth development), and an-nadhafah wa al-jamaal (cleanliness and beauty). Conversely, behaviors that must be avoided because they can damage the environment include al-fasad fi al-ardh (damage on earth), israaf (excess), tabdzir (waste), and dharar (actions that harm or damage). (Iskandar & Aqbar, 2019).

2.5 Relevancies Between Islamic FFinance and the Gree Economy

The concept of the green economy is relevant from the perspective of Islamic financing. The green economy is considered Islamic finance as a notion that can foster moral accountability. By considering the effects of economic activity on the environment, this notion respects the environment. Islamic economics views people as God's stewards on earth, or "khalifa," accountable for everyone's well-being, including the environment.

Furthermore, the concept of sustainable development and the green economy are supported by certain verses in the Qur'an (QS. 54:49) through the principle of *al-Mizan* (balancing) that mandates the ecosystem's stability and balance due to responsible communal needs. there is a relationship of interdependence among the component parts and elements of the natural environment, each of which is dependent on the other for their sustenance and wellbeing. One creature’s waste and refuse may be nutrition for another. Thus stands the natural equilibrium and balance of the eco-system, which the Qur’an demands to be maintained and protected for a sustainable world.

The other islamic finance concept that suppport green econmy is Wasatiyyah within the context of Islamic sustainable business would suggest that investments ought to meet people’s needs while operating within the boundaries of sustainability and an efficient economic system. Investments should not cause environmental harm or financial loss to external stakeholders beyond those who have voluntarily put their capital at risk. Rather, a moderate and balanced approach should be adopted that doesn’t harm others, including violating the natural settings of mizan.(Al-Mubarak, 2019.)

Islam perceives Nature as an ecosystem that should not be mistreated or over-consumed. According to Islamic teachings, resources must benefit the whole people rather than being dominated by a few wealthy and powerful individuals. The Qur’an (2:205) states: “*And when he goes away, he strives throughout the land to cause corruption therein and destroy crops and animals. And Allah does not like corruption*.”. This implies Islamic Sharia supports an act of not cutting down trees and deteriorating the air and water supplies. Several rulings under the Islamic law of Shariah, which regulates the Islamic finance system, emphasize the significance of environmental preservation and protecting the sustainable use of natural resources. Some research analyzes Islamic finance to address environmental issues and promote a green economy, for instance,Campisi et al., 2018 looked into the possibility of issuing green sukuk as a funding mechanism for the wind energy industry. Based on the findings, green sukuk can be utilized as a substitute instrument that has higher profitability and bankability than traditional goods.

According to Al-Roubaie & M. Sarea, 2019, the idea of green investment has the potential to create a green economy, which is necessary to meet the aims of the green economy, which centers on achieving a balance between economic activity and the sustainability of natural resources. From the perspective of the Islamic green economy, green sukuk could be used as a finance instrument for sustainable projects that address climate change. In addition, T. Khan, 2019 supported the idea that Sukuk is one of the Islamic financial products that may bridge the sustainability gaps in the market, this concept relies on Maqashid al-shariah which is the fundamental theoretical and practical rule for Islamic finance.

(Hariyani & Kusuma Hendra, n.d) investigated how green sukuk may be used to finance environmentally sustainable waste management initiatives in Indonesia by using the Analytical Network Process (ANP) with Benefit, Opportunity, Cost, Risk (BOCR) framework. This research showed that Green Sukuk will contribute to reducing waste because of the expansion of the role of Islamic finance, the availability of alternative energy sources, and the rise in Sukuk liquidity. However, there are still potential risks in this implementation, so the participation and awareness aspect should be raised well.

2.6 The potential of implementation Islamic green ecoomy in Indonesia

From the perspective environment, Indonesia has the highest marine biodiversity in the world and the second-highest terrestrial biodiversity. Despite making up only 1.3% of the planet's geographical area, Indonesia's forests are home to 20% of all plant and animal species, 17% of all bird species, and more than 25% of all fish species. In addition, Indonesian woods account for 10% of global forest cover. For example, in practically every ten hectares of forest on the island of Borneo, there are more species of trees than there are in all of North America. This is without even counting the variety of uncommon plants, insects, and animals that are unique to this part of the world. Borneo is home to 6% of the world's bird, mammal, and flowering plant species, although making up only 1% of the planet's surface. This information is provided by the United States Agency for International Development (USAID). The marine biodiversity of Indonesia, which is situated at the meeting point of the Pacific, Indian, and South China Seas and receives food from all three, is only around ten times that of the entire Caribbean archipelago.(Greenpeace Indonesia & INDEF., 2021)

Indonesia has been losing tropical forests as large as the state of Maryland every year, and releasing carbon (CO2) due to illegal logging and forest clearing. Indonesia is the third country in the world that produces the highest greenhouse gas emissions, after the United States and China. On the other hand, more than 70% of CO2 emissions in Indonesia come from logging and forest clearing. According to Fauzi et.al. (2010), in the Indonesian context, the concept of Green Economy ideally contains specific characteristics of Indonesia that is not only limited to the emphasis on the effective and efficient use of natural resources but also focus on green economic policies that can support poverty reduction and internalization of environmental costs. (Iskandar & Aqbar, 2019)

From the perspective socio-cultural, Indonesian society with a high level of religious adherents have the potential to build harmony between the implementation of green economy and religious values. From this percentage, the majority of the Indonesian population (87.18%) can potentially run the concept of a Sharia-based economy or Islamic values. In addition to its suitability with the sociocultural of Indonesian society, the application of the concept of Islamic Green Economy in Indonesia has a legal basis stated in the 1945 Constitution (UUD) Pasal 29 (1) which states that the state is based on the Almighty God is an ideal indication for Indonesia to implement the Islamic green economy.

METHODS

The data used as the source in this research was taken from the Scopus database, chosen because Scopus is comprehensive, reputable, and its peer-review process is rigorous. Researchers inputted the keywords "Green Economy" OR "Islamic Economy" AND "Islamic Green Economy" into the document search field. As a result, 10 journal articles relevant to the research topic were found. The journal article data were then analyzed using VOSviewer software.

RESULTS

Co-authorship Country

This study presents visualizations depicting the publishing countries of Islamic green economy literature, as illustrated in Figures 1 Network Visualization, Figure 2 Overlay Visualization, and Figure 3 Density Visualization. The dataset comprises 10 articles sourced from the Scopus database spanning the period from 2019 to 2024.

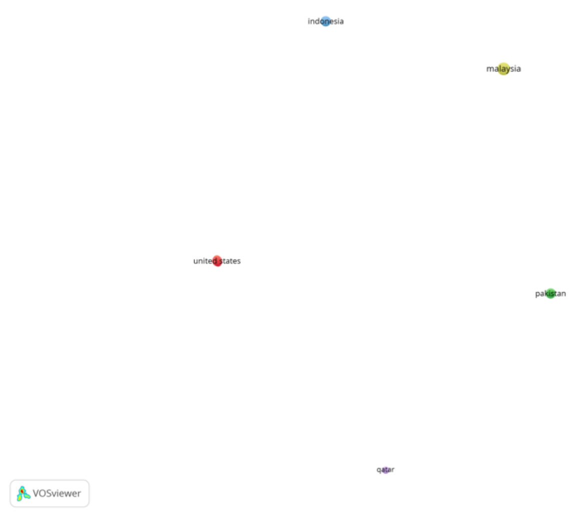

Figure 1 Network Vizualization
Source: Primary data processed (2024)

The analysis reveals that several countries, such as Indonesia, Malaysia, the United States, Pakistan, and Qatar, have actively contributed to the literature on Islamic green economy during this period. However, the Overlay visualization using Vosviewer indicates that these countries have not engaged in collaborative research endeavors in this field.

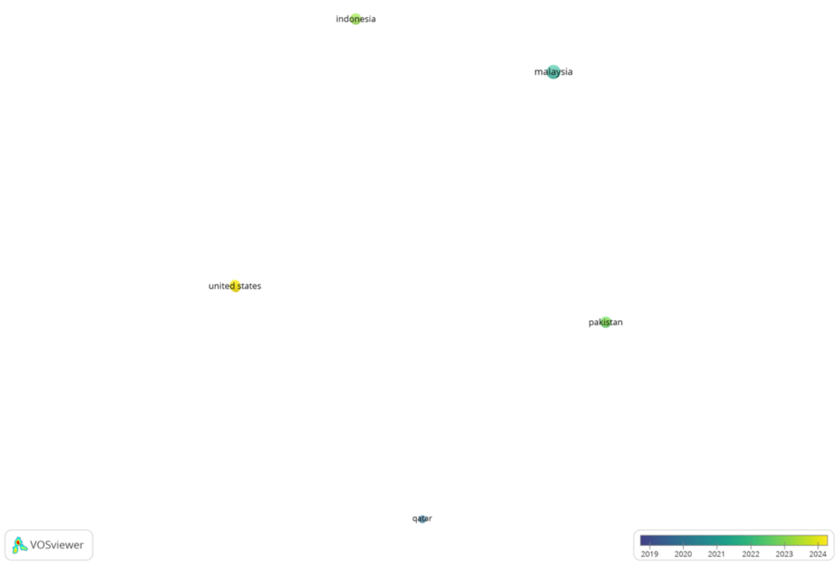

Figure 2 Overlay Visualization
Source: Primary data processed (2024)

According to VOSviewer analysis, Qatar stands out as the pioneering country in conducting research on the Islamic green economy. Over subsequent years, other countries such as Malaysia, Pakistan, Indonesia, and the United States have also demonstrated a growing interest and engagement in this research area.

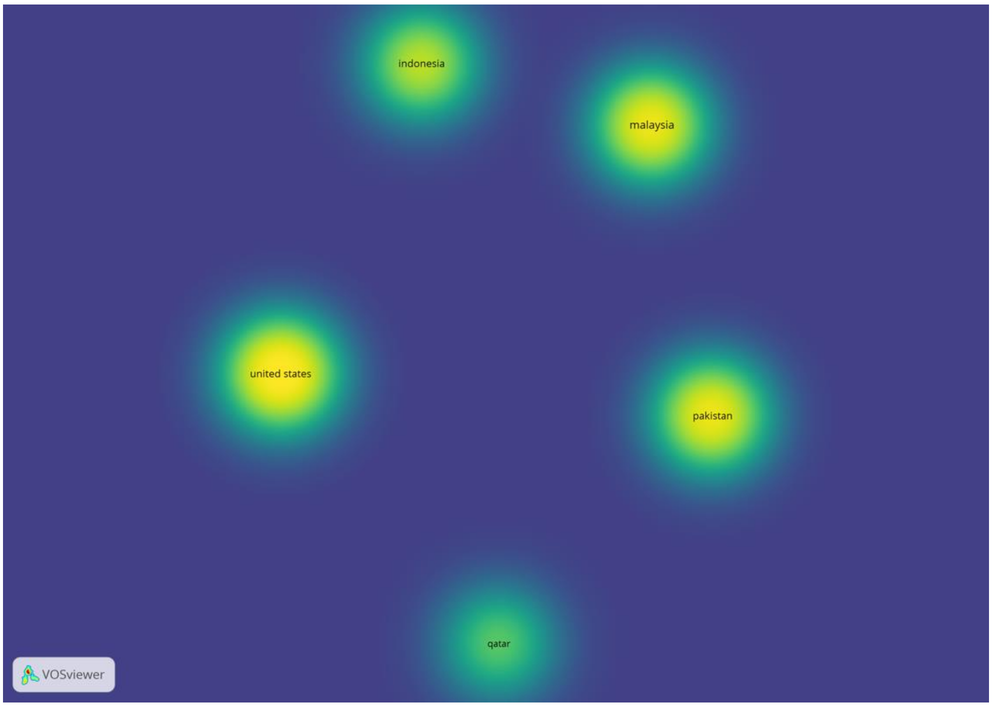

Figure 3 Density Visualization
Source: Primary data processed (2024)

In Figure 3, the larger the circle of the publishing country indicates the more papers that country publishes. The most popular country is calculated from the number of publications and links to links to another country, where an author can write many papers in different journals. Regarding to results obtained, it is clear that the United States and Pakistan are categorized as the countries with the highest publications on Islamic Green Economy literature. In contrast, Qatar is the least country that published Islamic Green Economy works of literature.

Co-authorship Institution (Co-citation)

In bibliometric analysis, we observed the institutions with the highest publications and their intersection in The Islamic Green Economy area. This study presents a visualization of the publishing institutions of Islamic Green Economy literature in Figure 4 Network Visualization, Figure 5 Overlay Visualization, and Figure 6 Density Visualization.

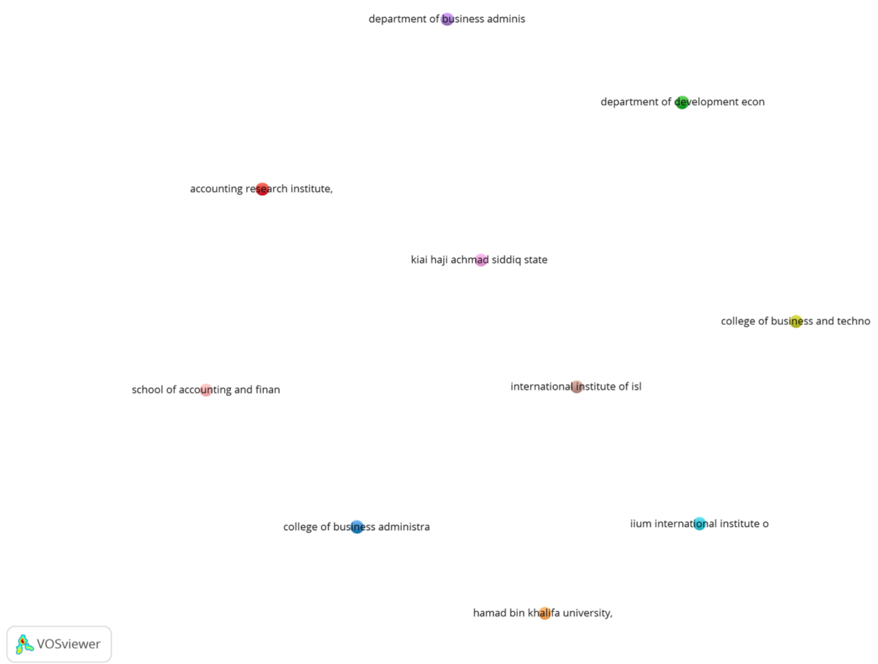

Figure 4. Network Vizualization
Source: Primary data processed (2024)

We can see some institutions appear to publish literature related to the islamic green economy from 2019 until 2024, including Accounting Research Institute, Faculty Of Business And Management, Universiti Teknologi Mara, Malaysia; Accounting Research Institute, Universiti Teknologi Mara, Malaysia; School Of Economics, Finance & Banking, Universiti Utara Malaysia, Malaysia; Department Of Development Economics, Faculty Of Economics And Business, Universitas Pembangunan Nasional Veteran Jakarta, Jakarta, Indonesia; Department Of Islamic Economics, Faculty Of Economics And Business, Universitas Pembangunan Nasional Veteran Jakarta, Jakarta, Indonesia; Department Of Islamic Economics, Universitas Pembangunan Nasional Veteran Jakarta, Jakarta, Indonesia; College Of Business Administration, Prince Mohamed Bin Fahd University, Dhahran, Saudi Arabia; Institute Of Business Administration, Gomal University, Dera Ismail Khan, Pakistan; Institute Of Management Sciences, University Of Science And Technology Bannu, Kp, Bannu, Pakistan; College Of Business And Technology, Northeastern Illinois University, United States; Faculty Of Finance, Tashkent Institute Of Finance, Uzbekistan; Department Of Business Administration, Hacettepe University, Ankara, Turkey;

Department Of Finance, University Of Illinois Chicago, Chicago, Il, United States; Iium International Institute Of Islamic Banking And Finance, International Islamic University Malaysia, Malaysia; Institute Of Islamic Banking And Finance, Iium, Malaysia; Hamad Bin Khalifa University, Islamic Finance Department, Education City, P.O. Box: 34110, Doha, Qatar; International Institute Of Islamic Economics (Iiie), International Islamic University (Iiu), Islamabad, Pakistan; Kiai Haji Achmad Siddiq State Islamic University, Indonesia; School Of Accounting And Finance, Asia Pacific University Of Technology And Innovation (Apu), Kuala Lumpur, Malaysia.

However, the analysis of institutional collaboration in research on the Islamic Green Economy, as depicted in the Overlay visualization using VOSviewer, reveals a notable absence of collaborative relationships among the participating institutions. Despite the active engagement of various institutions in researching the Islamic Green Economy, there is a discernible pattern of independent research pursuits rather than concerted collaborative efforts. This finding suggests that while multiple institutions are contributing to the literature on this topic, they are operating largely in isolation from one another, potentially hindering the synergistic advancement of knowledge and innovation in the field.

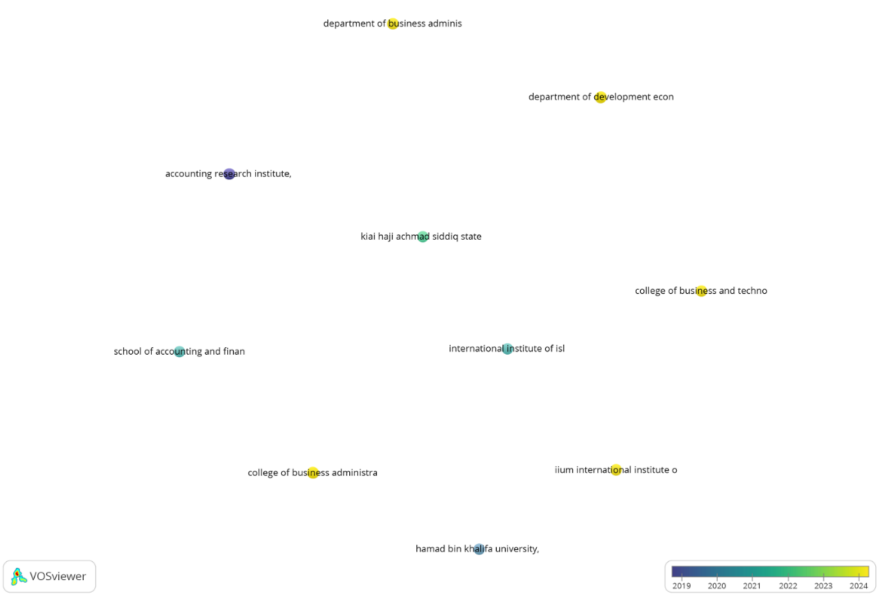

Figure 5. Overlay Visualization
Source: Primary data processed (2024)

According to VOSviewer analysis, the Accounting Research Institute, Faculty Of Business And Management, Universiti Teknologi Mara, Malaysia emerges as the Earliest Institution to have researched the Islamic Green Economy. **In Contrast**, College Of Business Administration, Prince Mohamed Bin Fahd University, Dhahran, Saudi Arabia; Department Of Development Economics, Faculty Of Economics And Business, Universitas Pembangunan Nasional Veteran Jakarta, Jakarta, Indonesia; College of Business and Technology, Northeastern Illinois University, United States; Iium International Institute Of Islamic Banking and Finance, International Islamic University Malaysia, Malaysia are among the institutions that have recently begun exploring research in the field of Islamic green economy.

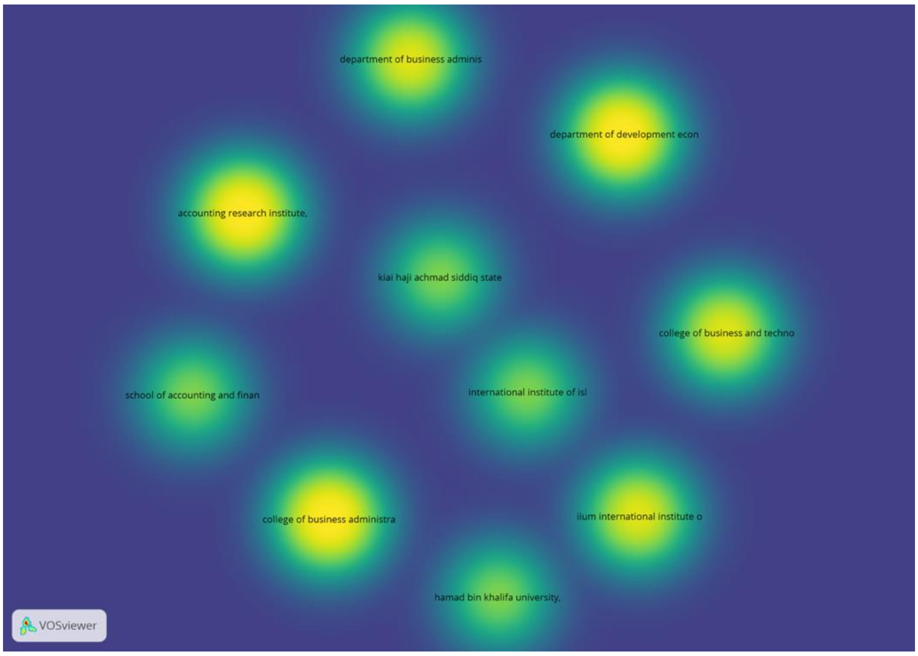

Figure 6. Density Visualization
Source: Primary data processed (2024)

The publishing institution deemed to be the most productive in terms of publishing papers on the subject of the Islamic Green Economy is represented by a larger circle in Figure 2.3. The number of publications and links to other institutions, where an author can produce many papers in other journals, are used to determine which university is most prominent.

Regarding to results obtained, some institutions have high publications literature on the Islamic Green Economy, including Accounting Research Institute, Faculty of Business And Management, Universiti Teknologi Mara, Malaysia; College of Business Administration, Prince Mohamed Bin Fahd University, Dhahran, Saudi Arabia; Department of Development Economics, Faculty of Economics and Business, Universitas Pembangunan Nasional Veteran Jakarta, Jakarta, Indonesia; Department of Business Administration, Hacettepe University, Ankara, Turkey; College of Business and Technology, Northeastern Illinois University, United States; and Iium International Institute Of Islamic Banking And Finance, International Islamic University Malaysia, Malaysia, classified as the institutions that have published most articles on Islamic green economics literature.

Co-authorship Authors
To enrich our analysis, this research presented the author’s bibliometric mapping as seen in Figure 7 Network Visualization, Figure 8 Overlay Visualization, and Figure 9 Density Visualization. This study presents visualizations depicting the publishing author of Islamic green economy literature. The dataset comprises 10 articles sourced from the Scopus database spanning the period from 2019 to 2024 and found 26 authors included.

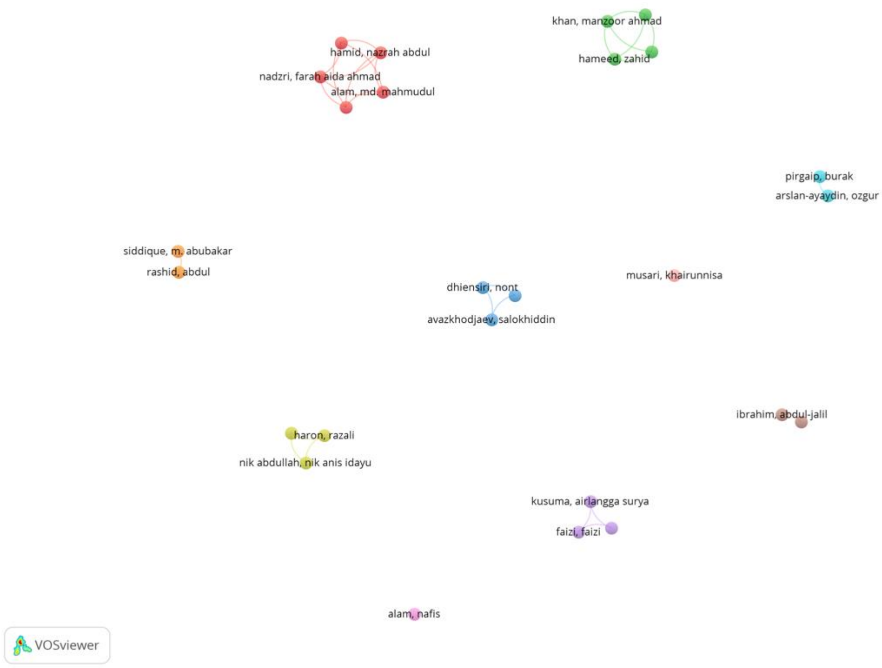

Figure 7. Network Vizualization
Source: Primary data processed (2024)

The analysis reveals that several authors have built networking in researching Islamic Green Economy topics. For instance, Alam, Md. Mahmudul; Hamid, Nazrah Abdul; Muda, Ruhaini; Nadzri, Farah Aida Ahmad; Omar, Normah. **In Contrast**, two authors have not been building networking in researching The Islamic Green Economy topics, Instance Alam, Nafis and Musari, Khairunnisa.

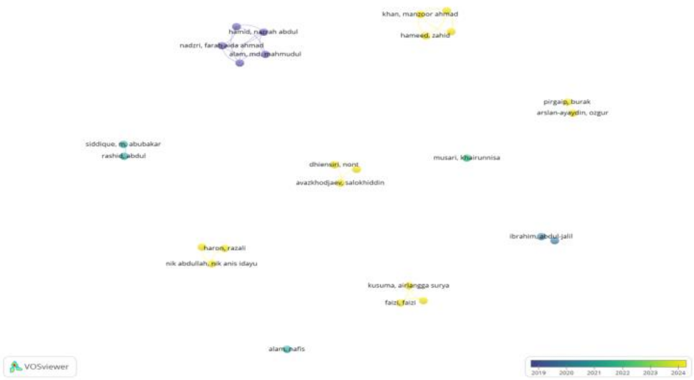

Figure 8. Overlay Visualization
Source: Primary data processed (2024)

According to VOSviewer analysis, Alam, Md. Mahmudul; Hamid, Nazrah Abdul; Muda, Ruhaini; Nadzri, Farah Aida Ahmad; Omar, Normah; stand out as the pioneering authors in researching the Islamic green economy. Over subsequent years, the other authors have also demonstrated a growing interest and engagement in this research area.

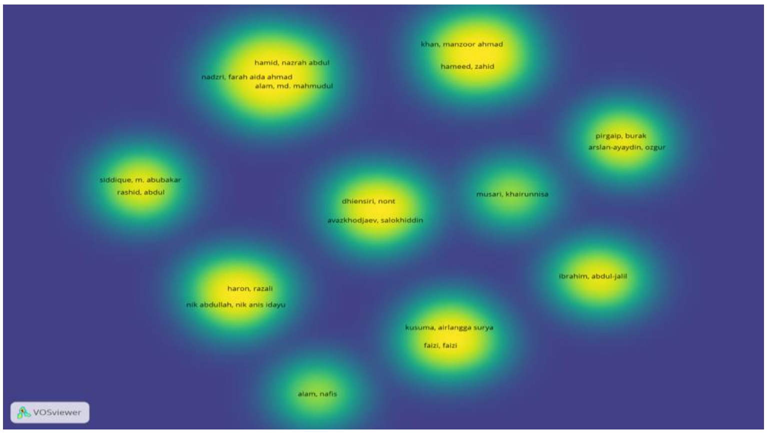

Figure 9. Density Visualization
Source: Primary data processed (2024)

In Figure 9 Density Visualization, the appearance of cluster density depends on the level of yellow light brightness. This identifies that the yellow color on the map depends on the number of pieces of literature associated with other literature. This section is useful for getting an idea of the general structure of a bibliometric map by taking into account which parts of the light are considered important to analyze. In general, each researcher has different tendencies. Some writers are indexed as a single author, others co-author with other researchers so that multiple clusters appear, which are indicated with different densities. However, authors with a fairly large density indicate that they publish more research on the theme of Islamic Green Economy. This result can be a reference for future researchers. Based on this result in Figure 3.3 the author with the highest publications on the Islamic Green Economy is Alam, Md. Mahmudul; Hamid, Nazrah Abdul; Muda, Ruhaini; Nadzri, Farah Aida Ahmad; Omar, Normah.

Co-occurrence All Key Word

To deepen the result, we display the keywords used in Islamic Green Economy literature as the content analysis. This test is performed through VOSViewer by using 34 keywords. From 10 articles from 2019 until 2024. The visualizations are depicted in Figure 10 Network Visualization, Figure 11 Overlay Visualization, Figure 12 Density Visualization.

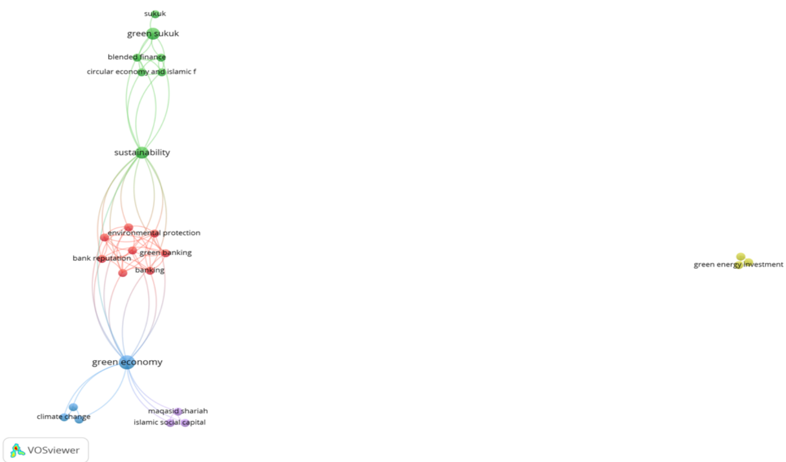

Figure 10 Network Vizualization
Source: Primary data processed (2024)

The results of the network map visualization based on the co-occurrence of keywords are shown in Figure 10. From the figure, it can be seen that the themes related to the Islamic Green economy are divided into 5 (five) clusters grouped based on the similarity of scientific fields of study. The grouping of themes based on the cluster is as follows (Table 1).

VOSviewer not only provides a map of research based on keywords but can also be used to view publication history. From the visualization of the image, it can be seen that cluster five; Islamic Social Capital, Maqasid Shariah, and Zakat are clusters with topics that have been discussed for a long time, indicated by the increasing purple color of the item circle. While the latest themes in 2024 discuss more on the themes of Bank Reputation, Banking, Developing World, Environmental Awareness, Environmental Protection, Green Banking, Islamic Banks, Islamism, Climate Change, Green Economy, Islamic Climate Finance, Islamic Finance, Sukuk, Green Energy Investment, Islamic Stock Markets, and Renewable Energy.

Therefore, another thing that can be analyzed by VOSviewer is the saturation of themes that often appear in research by analyzing the density feature, which measures the density of items. This density level is seen from the color density in the network visualization which shows the more often a theme is studied, for example, in the results of the research density analysis the items "green economy" and "green sukuk" are items with a thicker yellow circle than other items. The themes that seem to rarely get attention are themes related to Islamic climate finance, maqashid shariah, sukuk ˆ and so on that allow potential research that can be carried out in the future.

Table 1. Daftar clusterSource: Primary data processed (2024)

Cluster	Keyword	Link	Occur rances	Color
Cluster 1	1. Bank Reputation	9	1	Red
	2. Banking	9	1	
	3. Developing World	9	1	
	4. Environmental	9	1	
	Awareness	9	1	
	5. Environmental	9	1	
	Protection	9	1	
	6. Green Banking	9	1	
	7. Islamic Banks			
	8. Islamism			
Cluster 2	1. Blended Finance	5	1	Green
	2. Circular Economy	5	1	
	And Islamic Finance	6	2	
	3. Green Sukuk	5	1	
	4. Islamic Banks And	5	1	
	Impact	1	1	
	5. Islamic Finance And	14	2	
	Sdgs			
	6. Sukuk			
	7. Sustainability			
Cluster 3	1. Climate Change	3	1	Blue
	2. Green Economy	15	3	
	3. Islamic Climate	3	1	
	Finance	3	1	
	4. Islamic Finance			
Cluster 4	1. Green Energy	2	1	Yellow Dijon
	Investment	2	1	
	2. Islamic Stock	2	1	
	Markets			

	3. Renewable Energy			
Cluster 5	1. Islamic Social Capital	3	1	Purple
	2. Maqasid Shariah	3	1	
	3. Zakat	3	1	

Source: Primary data processed (2024)

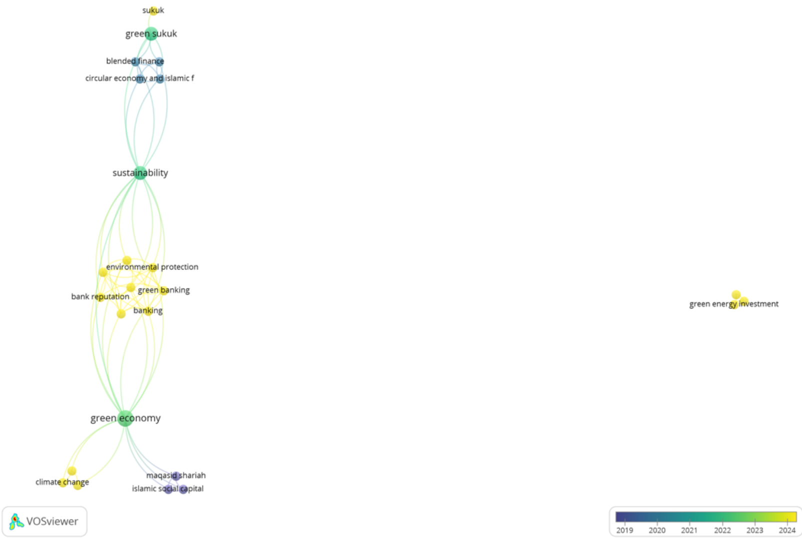

Figure 11. Overlay Visualization
Source: Primary data processed (2024)

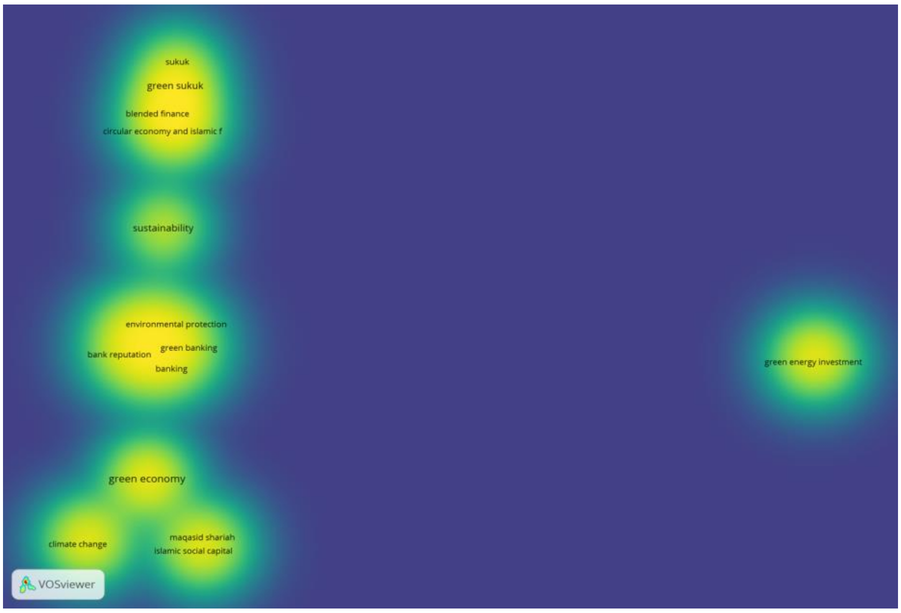

Figure 12. Density Visualization
Source: Primary data processed (2024)

CONCLUSION

As human populations have grown, ecosystems have deteriorated, impacting global economies. The green economy emerged to address this dual crisis by integrating climate and ecological mitigation efforts comprehensively. The green economy aligns with Islamic finance principles, emphasizing sustainable development through concepts like *al-Mizan* (balance), *wasatiyyah* (moderation), and *maqashid al-Shariah* (objectives of Islamic law). Indonesia, with its rich biodiversity and ecosystem challenges, is well-suited for implementing an Islamic green economy. As a predominantly Muslim nation (87.18% of the population), Indonesia's socio-cultural context supports the integration of green economy practices rooted in Islamic principles.

Research using VOSviewer indicates a limited body of literature on the Islamic green economy, comprising 10 articles from 2019 to 2024 in Scopus. Contributions spanned countries like Indonesia, Malaysia, the United States, Pakistan, and Qatar, with Qatar pioneering early research and the United States leading in publications. Despite geographic diversity, there's a notable lack of collaboration. The Accounting Research Institute at Universiti Teknologi MARA, Malaysia, initiated research. Co-occurrence analysis revealed 34 keywords in five clusters, focusing on themes like Islamic Social Capital, Maqasid Shariah, and Zakat. Density visualization indicates that topics such as green economy and green sukuk are frequently explored in the literature.
Considering the imperative of sustainability, the convergence between the green economy and Islamic green economy concepts, and Indonesia's conducive ecosystem and sociocultural milieu, there exists a pressing need for extensive research on the theme of the Islamic Green Economy. Simultaneously, the dearth of literature on this concept presents a significant opportunity for exploration, particularly in multidisciplinary approaches.

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