

INTEGRATION OF ECOTHEOLOGY AND G2R TETRAPRENEURSHIP IN REALIZING A SUSTAINABLE FUTURE THROUGH THE SYNERGY OF RATIONALITY, RELIGIOSITY, AND SOCIAL ECONOMIC INNOVATION

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Abstract

The issue of sustainability is becoming increasingly urgent in environmental, social, and economic contexts, given major challenges such as climate change, ecosystem degradation, and worsening social inequality. This article discusses the integration of ecotheology and G2R Tetrapreneur as solutions that can support sustainable development. Ecotheology in Islam provides an ethical and spiritual basis for wise and sustainable natural resource management, while the G2R Tetrapreneur model introduces sustainable entrepreneurship that combines four main pillars: Chainpreneur, Marketpreneur, Qualitypreneur, and Brandpreneur. Both concepts prioritize social, economic, and environmental sustainability, which are highly relevant to addressing global and local challenges related to environmental crises and social inequality. This research shows that ecotheology and G2R Tetrapreneur can work synergistically to create entrepreneurship that is not only oriented towards economic profit but also considers social and environmental impacts. The government, community, and religious institutions have an important role in integrating ecotheology values into village-based entrepreneurship policies. The government can create policies that support sustainable entrepreneurship, while religious institutions can educate the community about sustainability principles in line with Islamic teachings. On the other hand, the G2R Tetrapreneur model offers an entrepreneurial framework that can support wise natural resource management, community empowerment, and inclusive economic sustainability. Synergy between business rationality and Islamic religious values is also needed to create sustainable social economic innovation. Challenges in implementing this model in Indonesia include limited understanding of sustainability principles and lack of access to necessary resources. However, by leveraging the existing values of mutual cooperation and community spirit in Indonesia, as well as support from various stakeholders, the G2R Tetrapreneur-based entrepreneurship model rooted in ecotheology has the potential to create environmentally friendly and sustainable businesses.

Keywords: Ecotheology, G2R Tetrapreneur, Sustainability, Entrepreneurship, Islam, Social, Environment.

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1. Introduction

The importance of sustainability issues in the environmental, social, and economic contexts is increasingly felt in the modern world. These issues encompass many challenges, such as climate change that increasingly threatens global ecosystems, growing social inequality, and economic resilience issues arising from dependence on limited natural resources. In response to these challenges, the concept of sustainability has evolved into a strategic paradigm that encompasses three main pillars: environmental, social, and economic (Kaimovs & Skarupins, 2024). Sustainability focuses not only on environmental protection, but also on achieving long-term social well-being and economic resilience (Kosmopoulos, 2024).

Once reason why this issue is so relevant is the direct impact of the environmental crisis on human life, such as the increased frequency of natural disasters caused by climate change, as well as the depletion of natural resources that can be used to support economic life (Mook & Swanson, 2024). For example, excessive energy consumption and the continued increase in the use of fossil fuels lead to environmental degradation and exacerbate economic inequality, which in turn affects social welfare. Thus, wise management of natural resources is essential to ensure that future needs can be met without sacrificing the needs of future generations.

Social sustainability is also an important focus, especially in ensuring that economic development not only benefits certain groups, but also improves the welfare of society as a whole. Inclusive development can reduce growing social inequality by ensuring more equitable access to education, decent work, and social protection (Dluhopolskyi & Zhukovska, 2023). Therefore, social sustainability aims to strengthen social bonds and tackle poverty and inequality that often arise in situations of economic imbalance.

On the economic side, implementing sustainability is not only about accelerating economic growth, but also about creating an economic system that is resilient to crises. For example, the circular economy, which emphasizes the importance of recycling and efficient use of resources, has become one of the solutions adopted by many countries to reduce negative impacts on the environment while continuing to drive economic growth. Countries that focus on sustainability principles have shown that policies that support sustainability can produce positive results in terms of both economic growth and environmental protection (Utomo et al., 2024).

Global environmental challenges are becoming increasingly profound and urgent, affecting ecosystems and human welfare around the world, including in Indonesia. Climate change, one of the main challenges, has caused a significant increase in global temperatures, with 2024 recorded as the hottest year in history in terms of global average temperature, exceeding the 1.5°C threshold from pre-industrial levels (Cousin & Rush, 2025). This phenomenon exacerbates changing weather patterns, increasing the frequency and intensity of natural disasters, such as droughts, floods, and more extreme storms. These climate changes threaten food and water security, especially in coastal and tropical regions, which are home to a large proportion of the population vulnerable to environmental impacts (Gohar & Cashman,

2017). In addition, rising sea temperatures exacerbate damage to marine ecosystems, with a major impact on the fishing industry, which depends on marine biodiversity.

Ecosystem degradation such as deforestation and forest destruction also exacerbates this crisis. Indonesia, known for its vast tropical forests, continues to experience deforestation despite a relative decline in the rate of deforestation. However, data shows that the loss of primary tropical forests, which are crucial for carbon sequestration, continues to increase, causing a decline in the ecosystem's ability to absorb carbon emissions (Liu et al., 2024). In addition, frequent forest fires in Indonesia worsen air quality and accelerate the loss of biodiversity, which is essential for ecosystem stability.

Indonesia also faces a deep socio-economic crisis. The widening economic inequality between the rich and the poor exacerbates the impact of climate change, with communities that are most vulnerable to natural disasters being those at the bottom of the socioeconomic ladder (Ferraro & Simorangkir, 2020) (Gao, 2025). Government programs, such as poverty reduction programs integrated with conservation efforts, are beginning to show positive results in reducing deforestation and increasing community resilience. However, there are still many structural obstacles to the effective implementation of policies to address these environmental and social issues simultaneously.

Globally, environmental crises intertwined with social and economic inequality are increasingly leading to a "polycrisis," where the impact of one crisis exacerbates another. The worsening climate crisis has exacerbated social and political instability, including triggering mass displacement of people due to climate-related disasters (Ayanoglu, 2024). This phenomenon calls for an integrated and multilateral approach to address these increasingly complex global challenges, involving cooperation between countries, sectors, and communities. An interdisciplinary approach that combines ecotheology and G2R Tetrapreneur is needed to realize a sustainable future, as these two concepts complement each other in responding to sustainability challenges. Ecotheology, as a branch of theology that emphasizes the relationship between humans and nature, seeks to integrate spiritual values in understanding and managing environmental issues. Islam, through the concept of Khalifah, places humans as leaders of the earth with the responsibility to care for the universe in accordance with His teachings (Rakhmat, 2022). These values form an ethical foundation that can encourage sustainable action in the face of environmental crises such as climate change and ecosystem degradation. On the other hand, the G2R Tetrapreneur model, with its four main pillars (Chainpreneurs, Marketpreneurs, Qualitypreneurs, and Brandpreneurs), introduces a sustainable entrepreneurship approach that can support the implementation of these actions in a broader socio-economic context (Fatimah, 2019).

In the context of Indonesia, which is rich in cultural diversity and mutual cooperation values, the application of these two concepts is highly relevant. Gotong royong as a social value that is inherent in Indonesian society is found in the G2R Tetrapreneur concept, which emphasizes collaboration to create inclusive and sustainable entrepreneurship. With this

interdisciplinary approach, the concept of Islamic ecotheology, which prioritizes nature conservation and social responsibility, can be strengthened by implementing economic innovation through entrepreneurship that supports sustainability. Ecotheology not only provides a moral and spiritual foundation, but also encourages concrete actions that are in line with the principles of sustainable development, as explained in the concept of Maslahah, which emphasizes the welfare of the people (Rosyadi et al., 2025).

The importance of this approach is evident in the integration of moral values and entrepreneurial principles in creating a business model that is not only economically profitable but also contributes to environmental sustainability. Within the framework of G2R Tetrapreneur, community-based businesses that prioritize quality, market efficiency, and community empowerment can be implemented using an approach based on the principles of ecotheology, where every business and product developed has a positive impact on the environment and socio-economics. Furthermore, this synergy will strengthen the role of the community in creating a sustainable future, by considering spiritual, social, and economic aspects in every entrepreneurial decision made (Wickramasekera et al., 2020).

The relevance of integrating ecotheology and G2R Tetrapreneur values in the context of Indonesia, which is rich in mutual cooperation and religious spirituality, is very important in facing sustainability challenges. Indonesia, as the country with the largest Muslim population in the world, has cultural roots that are deeply connected to religious values that emphasize responsibility towards nature and others. Islamic ecotheology, which views humans as caliphs on earth, emphasizes the importance of wise and sustainable management of natural resources (Efendi & Syahminan, 2024). These values are in line with the principles of sustainability that must be pursued through efforts that support environmental, social, and economic sustainability. Therefore, integrating ecotheology principles into entrepreneurship through G2R Tetrapreneur offers an effective way to realize a more sustainable future in Indonesia.

The research question in this study focuses on how the integration of Ecotheology and G2R Tetrapreneur can promote a sustainable future through synergy between rationality, religiosity, and socio-economic innovation. This study aims to understand and examine both concepts, as well as develop a model that integrates the two to achieve sustainability with a rational, religious, and innovative approach. The significance of this research lies in filling the gap in the literature that connects religious theology, particularly ecotheology, and social entrepreneurship based on sustainability principles, as well as contributing to the development of a more holistic concept of sustainability by integrating spiritual values into business and entrepreneurship.

2. Research Methods

The research approach used in this study is descriptive qualitative with a literature review method as the main method (Clyde, 2004; Sandelowski, 2000). This approach was chosen because the main objective of the study is to understand the concepts of Ecotheology and G2R

Tetrapreneur, as well as to identify the relationship between the two in realizing a sustainable future. Literature review allows researchers to collect, analyze, and synthesize information from various relevant sources, such as books, scientific articles, and policy reports related to the research topic. This study focuses on existing literature to gain a deeper understanding of the integration of these two concepts and their implications for social, economic, and environmental sustainability.

The data collection process was carried out using the documentation method, which allows data to be collected from various relevant written sources. The main data sources in this study include the Qur'an and Hadith, which are sacred texts in Islam that contain principles related to human relations with nature, as well as books, scientific journals, and policy reports that discuss the concepts of ecotheology, G2R Tetrapreneur, and sustainability. These data sources were selected to ensure that this study has a strong foundation in both religious theory and sustainable entrepreneurship theory. In this case, the Qur'an and Hadith are important references because they contain ecological values that can be integrated with sustainable entrepreneurship practices.

The analytical technique used in this study is content analysis, which is used to explore the main themes related to the principles of Islamic ecotheology and the G2R Tetrapreneur model. This analysis aims to identify how the two concepts are interrelated and can be applied in the context of sustainable development. In addition, concept mapping was conducted to identify the relationship between ecotheology theory, the G2R model, and sustainability. This mapping helps illustrate how the principles of Islamic ecotheology can strengthen the principles of G2R-based social entrepreneurship. The development of a conceptual model is also part of this analysis technique, which aims to illustrate the synergy between rationality, religiosity, and social economic innovation, which is at the core of this study.

3. Results

3.1 Ecotheology

Ecotheology in Islam has a strong foundation for preserving the environment and encouraging human responsibility as stewards of the earth. The concept of stewardship in Islam not only describes humans as rulers or leaders, but also as guardians and managers of the universe. As stewards, humans are given the task of caring for and maintaining the earth as a trust from Allah SWT, as well as ensuring the sustainability of ecosystems for future generations. This principle is contained in the Qur'an and Hadith, which emphasize the importance of maintaining the balance of nature and not destroying natural resources (Kula, 2001; Ulya et al., 2024). Islam teaches that all of Allah's creations on earth are interconnected and must be kept in balance. According to this view, destroying nature means violating the mandate given by God.

The main principle in Islamic eco-theology is tawhid, which teaches that the universe is God's creation that must be respected and preserved (Wani & Azhar, 2024). In Surah Al-Baqarah verse 164, Allah explains that the entire universe was created for the benefit of

humankind, but humans do not have the absolute right to exploit nature. Instead, humans must be responsible for the preservation of nature as part of their worship of God. This concept emphasizes the importance of living simply and avoiding wastefulness (israf) that destroys the balance of nature (Mukhlis, 2022).

Islamic eco-theology also teaches the principle of balance or mizan, which describes that nature was created in a state of balance and harmony (Abadi et al., 2022). Mizan teaches that every element of nature has a complementary role. Therefore, humans as caliphs have a responsibility to maintain this balance in a wise and sustainable manner. Islam prohibits all forms of damage or harm caused by human actions to the environment, as explained in Surah Al-A'raf verse 56, which reminds humanity not to destroy the earth after Allah has repaired it.

From an Islamic perspective, caring for nature is not only seen as a moral responsibility, but also as a spiritual responsibility that must be carried out by every individual. Nature is seen as a manifestation of Allah's power and greatness, so destroying nature is a form of denial of Him (Anam et al., 2021). Furthermore, the concept of amanah (responsibility) teaches that humans do not have the right to destroy or exploit nature excessively. Instead, every human action towards nature must be based on the principles of justice, balance, and sustainability.

Islamic eco-theology provides a solid foundation for Muslims to actively engage in environmental conservation efforts. By integrating spiritual and ethical values into natural resource management, Islam offers a holistic approach to preserving the earth and achieving sustainability. Therefore, the application of Islamic eco-theology principles can be an effective foundation for addressing global environmental challenges and achieving sustainable development.

3.2 Global Gotong Royong (G2R) Tetrapreneur

The G2R Tetrapreneur model promotes sustainable entrepreneurship by integrating key business concepts that focus not only on profit, but also on social, economic, and environmental sustainability. Within this framework, there are four main pillars that support each other, namely Chainpreneur, Marketpreneur, Qualitypreneur, and Brandpreneur (Aji & Fatimah, 2024; Sari & P L, 2025). The first pillar, Chainpreneur, connects the principles of entrepreneurship with the philosophy of the supply chain, which focuses on efficiency and the suitability of halal products throughout the distribution chain. This concept is highly relevant in ensuring that the quality and integrity of halal products are maintained at every stage of production and distribution, which in turn promotes sustainability in the production process.

The second pillar, Marketpreneur, emphasizes the importance of market development that not only meets consumer needs but also encourages businesses to be socially and ethically responsible in their interactions with various stakeholders, including the government, the community, and investors. The focus of Marketpreneur is to create a competitive market with attention to social and environmental sustainability, as well as ensuring that businesses operate efficiently and profitably. This principle reinforces the relevance of entrepreneurship in creating jobs and empowering local communities.

Qualitypreneur, as the third pillar, focuses on applying quality principles in every aspect of entrepreneurship. This concept encompasses continuous efforts to improve product standards and ensure that guaranteed quality is accepted by consumers, both in local and global markets. This is in line with the need to maintain halal certification as a guarantee of quality in products, which is officially recognized both domestically and internationally.

The final pillar, Brandpreneur, focuses on developing strong and credible brands through a brand value approach that involves all stakeholders in maintaining product reputation and identity. In the context of sustainable entrepreneurship, brand value is a crucial element in creating appeal, trust, and relevance in the market. Brandpreneur also optimizes brand strength as the key to success in maintaining strong relationships between products, consumers, and other stakeholders, with the aim of ensuring long-term business sustainability.

The integration of these four pillars enables entrepreneurship that is not only financially profitable, but also sustainable in social and environmental aspects. The G2R Tetrapreneur model, which combines the principles of mutual cooperation with sustainable entrepreneurship, offers a holistic approach to creating a better future through wise management of resources and inclusive and sustainable community empowerment.

3.3. Integration of the Concepts of Ecotheology and G2R Tetrapreneur

Ecotheology can strengthen the G2R Tetrapreneur model by providing an ethical and spiritual foundation for natural resource management, community empowerment, and the application of sustainability principles. From an Islamic perspective, ecotheology teaches that humans have a moral and spiritual responsibility to maintain the balance of the universe as part of God's mandate. The concept of khalifah (leader) given to humans in Islam reflects that humans are not rulers who can destroy the earth, but rather managers who must protect and care for the earth with full responsibility (Sanjotis, 2012; Nasr, 2007). These values form the basis for natural resource management with an emphasis on conservation and sustainability.

In the G2R Tetrapreneur model, one of the main pillars is Chainpreneur, which emphasizes efficient and environmentally friendly supply chain management. Ecotheology supports this concept by encouraging the wise use of natural resources, avoiding waste (*israf*), and ensuring that every stage of production does not damage the environment (Nawaz & Hashmi, 2020). By integrating the principles of ecotheology, Chainpreneurs are expected to apply sustainability principles in every aspect of their supply chain, from the procurement of environmentally friendly raw materials to the distribution of products that do not harm nature. This is in line with Islamic teachings that prohibit excessive exploitation of nature and teach humans to live in harmony with nature (Al-Qur'an, 6:141; Al-Jayyousi, 2002).

In addition, G2R Tetrapreneur also strengthens community empowerment through Marketpreneur, which focuses on developing ethical and inclusive markets. In the context of community empowerment, ecotheology plays an important role by teaching the principles of social justice and human welfare. Islam teaches that everyone has the right to prosperity, and the abundant natural resources on earth must be used for the common good (Fatimah, 2018).

Through Marketpreneur, communities can be empowered to engage in a sustainable economy in a manner consistent with ecotheology values. For example, products manufactured based on sustainability and business ethics principles can strengthen social responsibility and create sustainable employment opportunities for local communities (Fatimah, 2018; Helfaya et al., 2018).

The integration of ecotheology principles with G2R Tetrapreneur can also strengthen the application of sustainability principles in various sectors, particularly in community-based entrepreneurship. By combining Islamic ecological values that emphasize the importance of natural balance, social justice, and responsible use of natural resources, Qualitypreneurs can ensure that the products they produce are not only of high quality but also do not harm the environment. These sustainability principles can be seen in efforts to reduce waste, utilize green technology, and maintain product quality so that future generations can enjoy them. This is in line with the principle of Tawazun in Islam, which teaches balance in all things, whether in personal life, social life, or in the management of natural resources (Al-Qur'an, 2:195).

Overall, ecotheology provides a strong foundation for G2R Tetrapreneur, with combining deep Islamic spiritual and ethical values to manage natural resources sustainably, empower communities, and create an environmentally friendly and inclusive economy. Through the integration of ecotheology principles, G2R Tetrapreneur not only prioritizes the economic aspects of entrepreneurship but also considers its broader impact on the environment and society (Chapin et al., 2022; Al-Qur'an, 6:141).

The Ecotheology and G2R Tetrapreneur integration model connects Islamic theological principles with sustainable entrepreneurship practices to realize a sustainable future through synergy between religious values and entrepreneurship. In this model, Ecotheology provides a strong spiritual and ethical foundation for natural resource management and human-nature relationships, while G2R Tetrapreneur provides an entrepreneurial structure focused on economic, social, and environmental sustainability. These two concepts complement each other in creating an entrepreneurial system that not only focuses on economic profit but also considers ecological and social sustainability, which is essential for realizing a sustainable future (Nasr, 2007; Fatimah, 2016).

This model consists of four main pillars that can be linked to Islamic theological principles. The first pillar, Chainpreneur, focuses on efficient and environmentally friendly supply chain management. The principle of khalifah in Islam teaches that humans have a responsibility to manage nature wisely. In this context, Chainpreneur integrates sustainability principles with supply chain management, ensuring that every stage of production, distribution, and consumption of products is carried out in an environmentally friendly and responsible manner (Al-Qur'an, 6:141; Nasr, 2007). Ecotheology teaches the importance of maintaining the balance of nature, which is in line with the principle of Tawazun in Islam, namely balance in all aspects of life, including in the management of natural resources.

The second pillar, Marketpreneur, prioritizes ethical and inclusive market development.

In Islam, social sustainability and social justice are strongly emphasized, with principles such as *maslahah* (common good) teaching the importance of creating broad benefits for humanity. Marketpreneur introduces a market that focuses not only on material profits, but also on community empowerment, creating inclusive business opportunities, and reducing social inequality. By integrating Islamic values that support social justice and economic sustainability, markets developed through Marketpreneur can improve the overall welfare of society, with an emphasis on social sustainability (Fatimah, 2018; Helfaya et al., 2018).

The third pillar, Qualitypreneur, focuses on quality management in every aspect of entrepreneurship. In Islam, quality is not only determined by the physical aspects of a product, but also by the intentions and objectives behind it. Qualitypreneurs integrate quality principles into the entire production process, from the selection of raw materials to product distribution. This is in line with Islamic principles that emphasize the importance of *ihsan* (good deeds), which is striving to give the best in every action, including in producing quality products (Sower, 2011). Quality management in Qualitypreneur does not only focus on economic profits, but also on long-term sustainability that can meet the needs of society without damaging natural resources.

The fourth pillar, Brandpreneur, focuses on building strong and credible brands. In Islam, reputation and integrity are highly valued, and Brandpreneur integrates these values to create brands that are trustworthy and recognized in the market. Brandpreneur develops brands that are not only known for their quality, but also for their commitment to social and environmental sustainability. Brands built on the principles of sustainability and ethics will gain the trust of consumers who are increasingly aware of the importance of sustainability and social responsibility in every product they consume (Fatimah, 2016; Helfaya et al., 2018).

Overall, the Ecotheology and G2R Tetrapreneur integration model combines spiritual, ethical, and practical values to create sustainable entrepreneurship. Through wise management of natural resources, community empowerment, and ethical market development, this model can make a significant contribution to inclusive, fair, and sustainable economic development. Within this framework, each pillar of G2R Tetrapreneur is strengthened by Islamic theological values that promote sustainability, balance, and social justice (Chapin et al., 2022; Saniotis, 2012).

4. Discussion

4.1 Analysis of Synergy between Rationality and Religiosity in Creating Sustainable Social Economic Innovation

Rationality in business and entrepreneurship is often associated with decisions based on logical considerations, efficiency, and potential financial gain. On the other hand, religiosity, especially in the context of Islam, offers ethical guidelines that prioritize justice, balance, and social and environmental sustainability. The synergy between rationality and religiosity, if combined appropriately, can produce sustainable social economic innovation that is not only

materially beneficial but also brings benefits to society and nature.

From a business perspective, rationality refers to decisions made based on logical and objective considerations, such as cost-benefit analysis, risk management, and strategic planning. Rationality in entrepreneurship includes decisions on how to efficiently utilize limited resources to achieve financial gains and business growth. One example of this rationality is the use of appropriate technology and management to increase productivity and reduce waste in the supply chain, which ultimately contributes to cost efficiency and economic sustainability (Verma, 2024). Rationality also underlies decisions regarding product or service innovations that can meet market needs, while remaining focused on long-term sustainability.

Religiousness in the context of Islamic spiritual ethics adds a deeper dimension to this business logic. In Islam, principles such as tawhid (the oneness of God), khalifah (responsibility as leaders of the earth), and *maslahah* (the welfare of the people) emphasize that every action, including in the context of business, must be based on moral values that lead to the welfare of humanity and the preservation of nature (Zahra et al., 2022). Tawhid, which is the basis of Islamic teachings, affirms that everything in this world belongs to Allah, and humans are only given the mandate to manage the universe fairly and wisely. Therefore, business in the Islamic view not only prioritizes material profits but must also consider the social and environmental impacts of every decision made.

The principle of khalifah teaches that humans have a responsibility to protect and care for nature as part of their duty as stewards of the earth. This means that in entrepreneurship, decisions made must reflect respect for the environment and natural sustainability. This can be translated into business practice by adopting a circular economy model, which focuses on recycling, waste reduction, and more efficient use of resources (Munir & Fausiah, 2025). Another example is *qualitypreneur*, which is a pillar in the G2R Tetrapreneur model, which emphasizes the importance of sustainability in the quality of products and services provided to consumers, in accordance with the principle of *ihsan* (doing good) in Islam.

The principle of *maslahah*, which prioritizes the common good, also strengthens the synergy between rationality and religiosity in creating inclusive entrepreneurship. In this context, *maslahah* does not only focus on personal or corporate profits but on broader benefits for society and the environment. Businesses based on the principle of *maslahah* will encourage activities that not only benefit the company but also have a positive impact on the surrounding community, such as the creation of decent jobs, the development of local communities, and contributions to social welfare (Sirat et al., 2016). Thus, entrepreneurship based on *maslahah* can create a sustainable social economy that prioritizes human welfare and environmental preservation.

The synergy between rationality and religiosity is also reflected in the management of resource-based entrepreneurship, which considers environmental factors in business management. In this context, rational business logic related to the efficient use of natural resources is combined with Islamic ethics that teach not to be excessive or wasteful (*israf*) in

the use of resources. This requires entrepreneurs to adopt green technologies and innovations that can reduce negative impacts on nature (Drakul, 2025). For example, the renewable energy industry or businesses that focus on the use of environmentally friendly raw materials reflect this synergy.

The synergy between rationality and religiosity can create sustainable socio-economic innovation through the wise management of natural resources, community empowerment, and the development of fair markets. The concept of socially and environmentally responsible entrepreneurship, inspired by Islamic principles, can create business models that are more inclusive, efficient, and sustainable in the long term. Therefore, it is important to integrate Islamic spiritual values into every step of entrepreneurship to achieve sustainable development goals.

4.2 Assessing the Role of the G2R Tetrapreneur Model in Supporting Social and Environmental Sustainability through Entrepreneurship Based on Islamic Principles

The G2R Tetrapreneur model plays an important role in supporting social and environmental sustainability by integrating Islamic principles into entrepreneurship. G2R Tetrapreneur consists of four main pillars, namely Chainpreneur, Marketpreneur, Qualitypreneur, and Brandpreneur. These pillars offer a holistic framework for creating entrepreneurship that not only focuses on economic profit but also is oriented towards social sustainability and environmental preservation. In the context of Islam, sustainable entrepreneurship involves moral, ethical, and social responsibility aspects, which are basic principles that can strengthen this model (Aji & Fatimah, 2024).

The first pillar, Chainpreneur, focuses on efficient and environmentally friendly supply chain management. In Islam, the principle of khalifah teaches that humans are stewards of the earth who have a responsibility to protect and care for the universe. This is reflected in Chainpreneur, which integrates sustainability principles into every stage of the supply chain, from raw material procurement to product distribution. Responsible Islamic-based entrepreneurship will consider the environmental impact of every supply chain decision made (Islam, 2023). Thus, Chainpreneur supports the wise management of natural resources and encourages environmentally friendly production practices, which are in line with Islamic teachings to avoid waste.

The second pillar, Marketpreneur, focuses on developing ethical and inclusive markets, which are in line with the principle of *maslahah* in Islam. *Maslahah*, which means mutual benefit, teaches that economic goals must prioritize the welfare of society and not just material gains. In the context of Marketpreneur, this principle is translated into creating markets that not only benefit business actors but also benefit society at large. Marketpreneur introduces an entrepreneurial model that emphasizes social sustainability, such as empowering local communities economically, reducing social inequality, and creating decent jobs. This model focuses on establishing markets that are oriented towards collective welfare, which is in line

with Islamic teachings that emphasize social justice and reducing inequality.

Qualitypreneur, as the third pillar, emphasizes the importance of quality in every aspect of entrepreneurship. In Islam, quality is not only related to physical products, but also to the intentions and goals behind them. Islam teaches that *ihsan* (doing good) is the principle that underlies all actions, including in the business world. In the context of Qualitypreneur, this means that every product produced must meet high quality standards, both physically and ethically. Entrepreneurship based on quality does not only focus on short-term profits, but also on the sustainability of products that can meet the needs of society without damaging nature. Sustainable quality management in Qualitypreneurship considers the impact of products on the environment and consumer health, in line with Islamic principles that teach us not to cause harm.

The final pillar, Brandpreneur, focuses on building strong and credible brands while considering social and environmental sustainability. In Islam, reputation and integrity are highly valued, and these values are very relevant to the principle of *amanah* (trust) which is the foundation of every business transaction. Brandpreneur integrates sustainability and ethical values into brand development, so that the brand is not only known for its quality but also for its commitment to social and environmental issues. A brand built on the foundations of sustainability and social justice will gain the trust of consumers who are increasingly concerned about the social and environmental impact of the products they consume. In this regard, Brandpreneur helps build brands that are not only economically strong but also have a good reputation in terms of social and environmental responsibility.

G2R Tetrapreneur, by integrating Islamic principles such as *khalifah*, *maslahah*, *ihsan*, and *amanah*, makes a significant contribution to creating sustainable, fair, and environmentally friendly entrepreneurship. Through the synergy between business rationality and Islamic religiosity, G2R Tetrapreneur has the potential to become an entrepreneurial model that is not only materially profitable but also has a positive impact on society and nature. Therefore, this model is highly relevant for promoting social and environmental sustainability through entrepreneurship based on deep Islamic principles.

4.3 Assessment of Challenges and Opportunities in Implementing the Ecotheology-Based G2R Tetrapreneur Model in Indonesia

The implementation of G2R Tetrapreneur based on ecotheology in Indonesia presents various challenges and opportunities that need to be considered. One of the biggest challenges is the limited understanding of the community and business actors regarding the importance of sustainability principles based on Islamic values (Pandikar et al., 2022). Most entrepreneurs in rural areas may not yet fully understand how to integrate ecotheology into their entrepreneurial activities, or may not yet consider it an important part of their business strategy. Therefore, intensive outreach and education efforts are needed to raise awareness about the importance of sustainability principles in the context of religion-based economics.

Another challenge is the limited infrastructure and access to resources needed to

implement the Tetrapreneur G2R model (Ergün et al., 1 C.E.). Many villages in Indonesia still face problems of limited technology, access to markets, and financial capacity to develop sustainable businesses. In this case, support from the government and financial institutions is needed to provide facilities that enable village-based businesses to access the necessary capital, as well as training and assistance in managing businesses sustainably.

However, these challenges also present great opportunities. Indonesia, with its cultural diversity and strong values of mutual cooperation, has great potential to implement an entrepreneurship model based on ecotheology principles. Village-based entrepreneurship programs that promote mutual cooperation can strengthen the implementation of G2R Tetrapreneur, as these social values can encourage collaboration and active community participation in sustainable entrepreneurial activities (Maryono & Afiani, 2025). In addition, the growing global trend towards environmentally friendly and sustainable products can open up new markets for village products that integrate ecotheology principles into their production. This is an opportunity for village entrepreneurs to enter the global market with products that meet internationally recognized sustainability standards.

5. Conclusion

Ecotheology and G2R Tetrapreneur can work synergistically to promote sustainable development by integrating spiritual values contained in Islamic teachings with social entrepreneurship innovation. Ecotheology, which emphasizes moral and ethical principles related to the relationship between humans and nature, provides a strong theological basis for sustainable natural resource management. Islamic values such as khalifah (responsibility as leaders on earth), *maslahah* (common good), and *ihsan* (good deeds) underpin entrepreneurship that not only pursues financial gain but also has a positive impact on society and nature. Meanwhile, G2R Tetrapreneur, with its four main pillars, namely Chainpreneur, Marketpreneur, Qualitypreneur, and Brandpreneur, implements these principles in entrepreneurial practices that are socially, economically, and environmentally sustainable. The synergy between these two concepts enables the creation of an entrepreneurial model that is not only efficient but also ethically and ecologically responsible, which is crucial in addressing global challenges related to climate change, social inequality, and environmental degradation.

This study provides new insights into how integrating Islamic teachings into entrepreneurship can support economic, social, and environmental sustainability. By linking the principles of ecotheology with the G2R Tetrapreneur entrepreneurship model, this study shows that entrepreneurship not only serves as a means to achieve economic profits, but can also be a tool for creating positive social impact and preserving the environment. More than just theory, this study also illustrates how Islamic principles, such as khalifah, *maslahah*, and *ihsan*, can be applied in real entrepreneurial practices and have a broad impact on communities and the planet. Therefore, this study enriches the discourse on sustainable entrepreneurship, especially that based on religious values, and contributes to the development of a more holistic concept of

entrepreneurship, which focuses not only on economic profit but also on social and environmental sustainability.

Based on the results of this study, there are several steps that can be taken to maximize the implementation of G2R Tetrapreneur based on ecotheology principles in government policies and entrepreneurial practices at the village level. *First*, the government must design policies that support sustainable entrepreneurship by providing incentives for businesses that apply sustainability principles in accordance with Islamic values. This could include subsidies for small and medium-sized enterprises that focus on environmentally friendly production or community empowerment. *Second*, ecotheology-based entrepreneurship education programs need to be introduced in schools and entrepreneurship training institutions in villages to educate the younger generation about the importance of integrating spiritual values into business. This will not only raise environmental awareness but also prepare them to become socially and ecologically responsible entrepreneurs.

Third, religious institutions can strengthen the application of ecotheology principles in entrepreneurship by providing training and guidance to rural communities on how to start and manage sustainable businesses. In addition, partnerships between the private sector, government, and religious institutions are essential to creating a sustainable entrepreneurship system. These partnerships can strengthen the implementation of G2R Tetrapreneur, expand market access for sustainable products, and increase environmentally friendly production capacity at the village level.

References

- Abadi, M., Permadi, I., Mezhova's, A., Prasetyo, R., & Simin, W. (2022). The Ecotheological Movement Among The Muslim Youngers Generation In Indonesia: Case Studies Eco Deen And Green Cadre Of Muhammadiyah. *Asian People Journal (APJ)*, 5(2), 179–194. <https://doi.org/10.37231/APJ.2022.5.2.473>
- Aji, K. B., & Fatimah, P. L. R. (2024). *Rejuvenating Sustainable Mangrove Ecotourism Destinations Using a Tetrapreneur Model: A Case of Kulon Progo, Indonesia*. 7(2). <https://doi.org/10.17509/jithor.v7i>
- Anam, M. S., Yulianti, W., Safitri, S. N., Qolifah, S. N., & Rosia, R. (2021). Konservasi Sumber Daya Alam Dalam Perspektif Islam. *Al-Madaris Jurnal Pendidikan Dan Studi Keislaman*, 2(1), 26–37. <https://doi.org/10.47887/AMD.V2I1.19>
- Ayanoglu, H. T. (2024). Exploring the Future of Climate Change and Political Violence in Indonesia. *Global Strategis*, 18(1), 153–176. <https://doi.org/10.20473/JGS.18.1.2024.153-176>
- Clyde, L. A. (2004). Evaluating the quality of research publications: A pilot study of school librarianship. *Journal of the American Society for Information Science and Technology*, 55(13), 1119–1130. <https://doi.org/10.1002/ASI.20066;Issue:Issue:DOI>

- Cousin, M., & Rush, J. (2025). Temperature Rising: How Global Heating Will Drag the Natural Rate of Interest Down, and Investment in Net Zero Will Push It Up. *Canadian Geographic*, 117(6), 36–44. <https://doi.org/10.1093/9780197800942.003.0007>
- Dluhopolskyi, O., & Zhukovska, A. (2023). Inclusive Development as an Instrument to Overcome Economic Inequality and Discrimination. *ECONOMICS - Innovative and Economics Research Journal*, 11(1), 11–27. <https://doi.org/10.2478/EOIK-2023-0016>
- Drakul, S. (2025). Green Innovations And Their Application In Modern Business. *Collection Of Papers New Economy Volume 3, No.1, 2025*, 3. <https://doi.org/10.61432/CPNE0301117D>
- Efendi, A., & Syahminan, M. (2024). Natural Resource Management According To The Quran From The Perspective Of Environmental Issues (Al Misbah Interpretation Study). *Academy of Education Journal*, 15(2), 1656–1666. <https://doi.org/10.47200/AOIJ.V15I2.2570>
- Ergün, Z., Bayram, A. T., Bayram, G. E., Ergün, Z., Bayram, A. T., & Bayram, G. E. (1 C.E.). Challenges and Opportunities in Rural Women’s Entrepreneurship: Navigating Financial, Infrastructural, and Societal Barriers. <https://Services.Igi-Global.Com/Resolvedoi/Resolve.aspx?Doi=10.4018/979-8-3693-6572-4.Ch001>, 1–14. <https://doi.org/10.4018/979-8-3693-6572-4.CH001>
- Fatimah, P. L. R. (2019). Mengembangkan Kualitas Usaha Milik Desa (Q-BUMDes) untuk Melestarikan Ketahanan Ekonomi Masyarakat dan Kesejahteraan Adaptif: Perancangan Sistem Kewirausahaan Desa dengan Menggunakan Model Tetrapreneur. *Jurnal Studi Pemuda*, 7(2), 122–132. <https://doi.org/10.22146/STUDIPEMUDAUGM.39551>
- Gao, X. (2025). Climate Change and the Poor: Reasons, Impacts, Inequities, and Sustainable Solutions. *Applied and Computational Engineering*, 124(1), 237–245. <https://doi.org/10.54254/2755-2721/2025.20081>
- Gohar, A. A., & Cashman, A. (2017). Climate Change Impacts on Water Scarcity and Food Security in Tropical Environments: The Case of Caribbean Regionultivars. *International Journal of Environmental Sciences & Natural Resources*, 3(3). <https://doi.org/10.19080/IJESNR.2017.03.555611>
- Islam, M. M. (2023). Institutionalization of Halal Entrepreneurship for a Sustainable Economy. *Contemporary Discourse of Halal and Islamic Entrepreneurship: Trends and Future Opportunities*, 61–78. https://doi.org/10.1007/978-981-99-6427-7_5
- Kaimovs, M., & Skarupins, A. (2024). Integrity Of Various Aspects Of Sustainability. *Economics and Education*, 9(2), 6–13. <https://doi.org/10.30525/2500-946X/2024-2-1>
- Kosmopoulos, P. (2024). The way forward for sustainable development. *Planning and Management of Solar Power from Space*, 173–189. <https://doi.org/10.1016/B978-0-12-823390-0.00001-6>
- Kula, E. (2001). Islam and environmental conservation. *Environmental Conservation*, 28(1), 1–9. <https://doi.org/10.1017/S0376892901000017>

- Liu, W., Zhang, X., Xu, H., Zhao, T., Wang, J., Li, Z., & Liu, L. (2024). Characterizing the Accelerated Global Carbon Emissions from Forest Loss during 1985–2020 Using Fine-Resolution Remote Sensing Datasets. *Remote Sensing 2024, Vol. 16, Page 978, 16(6)*, 978. <https://doi.org/10.3390/RS16060978>
- Maryono, M., & Afiani, N. (2025). Peran Kewirausahaan Sosial dalam Meningkatkan Kinerja Usaha Mitra: Studi Kasus Kampung Wisata Bisnis Tegalwaru, Bogor. *Jurnal Agribisnis Indonesia (Journal of Indonesian Agribusiness)*, *13(1)*, 105–118. <https://doi.org/10.29244/JAI.2025.13.1.105-118>
- Mook, A., & Swanson, E. (2024). Environmental Change. *The Blackwell Encyclopedia of Sociology*, 1–6. <https://doi.org/10.1002/9781405165518.WBEOSE104.PUB2>
- Mukhlis, F. H. (2022). Paradigma Ekologis Dalam Tafsir Al-Qur'an: Kajian Tematik-Kontekstual. *QOF*, *6(1)*, 89–108. <https://doi.org/10.30762/QOF.V6I1.396>
- Munir, R., & Fausiah, R. (2025). The Role of Circular Economy in Green Entrepreneurship: Sustainable Business Models. *Journal of Indonesian Scholars for Social Research*, *5(1)*, 56–64. <https://doi.org/10.59065/JISSR.V5I1.173>
- Pandikar, E., Affandi, I., Disman, D., & Sundawa, D. (2022). Harmonizing Economic Principles, Islamic Values, and Entrepreneurial Attitudes for a Sustainable Environment. *Yupa: Historical Studies Journal*, *6(2)*, 188–197. <https://doi.org/10.30872/YUPA.V6I2.3739>
- Rakhmat, A. (2022). Islamic Ecotheology: Understanding The Concept Of Khalifah And The Ethical Responsibility Of The Environment. *Academic Journal of Islamic Principles and Philosophy*, *3(1)*, 1–24. <https://doi.org/10.22515/AJIPP.V3I1.5104>
- Rosyadi, S., Raya, F., Fitriani, N., Najihuddin, S., & Hassan, S. (2025). ISLAMIC ECO-THEOLOGY. *TAJDID: Jurnal Ilmu Ushuluddin*, *24(1)*, 26–49. <https://doi.org/10.30631/TJD.V24I1.539>
- Sandelowski, M. (2000). Focus on Research Methods Whatever Happened to Qualitative Description? *Research in Nursing & Health*, *23*. [https://doi.org/10.1002/1098-240X\(200008\)23:4](https://doi.org/10.1002/1098-240X(200008)23:4)
- Sari, Y. D., & P L, R. F. (2025). *Integrating the Tetrapreneur Framework for Enhanced Halal Regulation* (Vol. 21, Issue 1). <http://ejournal.uin-malang.ac.id/index.php/ekonomi>
- Sirat, A. H., Hilmiyah, N., & Shafiai, M. H. M. (2016). Al Maslahah Based Quality Management: A Theoretical Overview. *American Journal of Applied Sciences*, *13(3)*, 243–250. <https://doi.org/10.3844/AJASSP.2016.243.250>
- Ulya, M., Sukiyat, S., Yasir, M., & Nurliana, N. (2024). The Qur'anic Perspective On Marine Resource Conservation: A Human Responsibility. *Jurnal Ushuluddin*, *32(2)*, 234–248. <https://doi.org/10.24014/JUSH.V32I2.33042>
- Utomo, B., Riatmaja, D. S., Aninam, J., & Wahyudi, F. S. (2024). Environmental Sustainability And Economic Growth: Policy Implications For Developing Countries. *Nomico*, *1(6)*, 87–93. <https://doi.org/10.62872/RDJWG922>
- Verma, R. (2024). Supply Chain Management: Optimizing Efficiency and Sustainability in the

- Supply Network. *Journal of Advanced Management Studies*, 1(2), 13–18.
<https://doi.org/10.36676/JAMS.V1.I2.9>
- Wani, N. H., & Azhar, A. (2024). Islamic Environmental Ethics: Preserving the Sacred Balance. *IJFMR - International Journal For Multidisciplinary Research*, 6(3).
<https://doi.org/10.36948/IJFMR.2024.V06I03.20924>
- Wickramasekera, E., Peiris, I. K., & Ulluwishewa, R. (2020). Conceptualizing the relationship between Spiritual Orientation and Entrepreneurial Orientation in developing sustainable enterprises. *Proceedings of International Conference on Business Management*, 17.
<https://doi.org/10.31357/ICBM.V17.5256>
- Zahra, S., Arief, A. A. Z., Noer, Muh. A., Putri, A. A., & Supriadi. (2022). Etika dan Akhlak Dalam Bisnis Islam. *TAFATQUH*, 7(1), 16–33. <https://doi.org/10.70032/FWFVTQ54>