

GREEN INNOVATION AND ISLAMIC BOARDING SCHOOL FINANCIAL PERFORMANCE: A CASE STUDY IN PONDOK PESANTREN TAHFIZ AL- QURAN (PPTQ) AL MUNAWAROH

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Abstract: The purpose of this study is to determine the dynamics of the relationship between green innovation and financial performance of Pondok Pesantren Tahfidzul Quran (PPTQ) Al-Munawaroh. More specifically, this study examines how green innovation practices which include products, processes, and organizations contribute to improving the financial performance of PPTQ Al-Munawaroh. This research uses a qualitative case study approach collected through face-to-face interviews, observation and documentary analysis. The results showed that the green innovation practice mechanism at PPTQ Al-Munawaroh has been running well and developed to change the habits of boarding school residents to care about the environment. Green innovation practices at PPTQ Al-Munawaroh are believed to improve finance. The impact of green innovation practices, especially for organizational innovation practices, contributes to resource efficiency at PPTQ Al-Munawaroh. This has an impact on operational savings so that it benefits the economy at PPTQ Al-Munawaroh.

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Keywords: *Green Innovation, Financial Performance, Islamic Boarding School, SDGs.*

Abstrak: Tujuan dari penelitian ini adalah untuk mengetahui dinamika hubungan green innovation dan kinerja keuangan Pondok Pesantren Tahfidzul Quran (PPTQ) Al-Munawaroh. Lebih spesifik, penelitian ini mengkaji bagaimana praktik green innovation yang meliputi produk, proses, dan organisasi berkontribusi dalam meningkatkan kinerja keuangan PPTQ Al-Munawaroh. Penelitian ini menggunakan pendekatan studi kasus kualitatif yang dikumpulkan melalui wawancara tatap muka, observasi dan analisis dokumenter. Hasil penelitian menunjukkan bahwa mekanisme praktik green innovation di PPTQ Al-Munawaroh telah berjalan dengan baik dan dikembangkan untuk mengubah kebiasaan warga pondok Pesantren untuk peduli pada lingkungan. Praktik green innovation di PPTQ Al-Munawaroh diyakini dapat meningkatkan keuangan. Dampak praktik green innovation terutama untuk praktik organizational innovation berkontribusi pada efisiensi sumber daya di PPTQ Al-Munawaroh. Hal ini berdampak pada penghematan operasional sehingga menguntungkan pada perkenonomian PPTQ.

Kata Kunci: *Green Innovation, Kinerja Keuangan, Pondok Pesantren, SDGs.*

Introduction

Sustainable development has become a highly popular field of research in the last decade. Scientific research on sustainability can help the business world adopt strategies that meet the current expectations of stakeholders in a broader sense, while simultaneously preserving, maintaining, and enhancing social assets and natural resources for the future.¹ Sustainable development must meet present needs without compromising the ability of future generations to meet their needs, while also protecting Earth's ecosystems and life-supporting capabilities.²

From an Islamic perspective, "sustainability" is defined by Al-Jayyousi as *hayatan thayyibah*, meaning "a good life," which

¹ Gülçin Büyüközkan and Yağmur Karabulut, "Sustainability Performance Evaluation: Literature Review and Future Directions," *Journal of Environmental Management* 217 (2018): 253–67, <https://doi.org/10.1016/j.jenvman.2018.03.064>.

² D Griggs et al., "Sustainable Development Goals for People and Planet," *Nature* 495, no. 7441 (2013): 305–7; WCED, "Our Common Future, World Commission on Environment and Development (WCED)," *Oxford University Press*, 1987.

encompasses four key Islamic concepts related to sustainable development: wisdom (*hikmah*), justice (*'adl*), public interest (*maslahah*), and innovation (*ijtihad*).³ Additionally, humanity is viewed as stewards or caretakers (*khalifah*) on Earth. The world contains all the materials that humanity can use for its benefit, but development must be sustainable and not cause adverse impacts.⁴

In addressing environmental issues, including nature conservation, it is essential to first address human behavior problems through education, starting from childhood to adulthood. This proves that awareness of environmental protection is a process that must be initiated as early as possible to form good habits in achieving sustainable development.⁵ So far, formal education has made changes and shaped character according to humanitarian values and Pancasila, which is embraced by Indonesia as the primary goal of developing future generations. However, formal education has not been able to optimize the current generation's character in protecting the environment because religious values have not been maximized in sustainable learning.

As a religion of *rahmatan li al-'alamîn* (a mercy to the worlds), Islam regulates and supports good character towards environmental preservation.⁶ Thus, religion-based education also plays a significant role in shaping the character of the nation's future generations who love their homeland and are

³ Al-Jayoussi, *Islam and Sustainable Development: New Worldviews* (Surrey: Gower, 2012).

⁴ Nur Hidayah Abdul Jabar et al., "Green Energy towards Sustainability from the Islamic Perspective," *International Journal of Sustainable Future for Human Security* 3, no. 2 (2016): 31–34, <https://doi.org/10.24910/jsustain/3.2/3134>.

⁵ Rihlah Nur Aulia, Dian Elvira Nanda Isnaini, and Umi Khumairoh, "Pengelolaan Lingkungan Berbasis Pesantren (Studi Kasus Di Pondok Pesantren Nurul Hakim Lombok)," *Hayula: Indonesian Journal of Multidisciplinary Islamic Studies* 1, no. 2 (2017): 229–44, <https://doi.org/10.21009/hayula.001.2.05>.

⁶ Endang Syarif Nurulloh, "Pendidikan Islam Dan Pengembangan Kesadaran Lingkungan," *Jurnal Penelitian Pendidikan Islam* 7, no. 2 (2019): 237, <https://doi.org/10.36667/jppi.v7i2.366>.

capable of preserving nature to achieve sustainable development, one of which is Islamic boarding school education (*Pesantren*). *Pesantren* is an educational institution that prioritizes the inculcation of morals based on Islamic teachings, with the educational process carried out through dormitory programs.⁷

Currently, *Pesantren* are beginning to venture into education focused on sustainable development, particularly in environmental conservation, to produce a generation that loves their homeland and cares about environmental sustainability.⁸ In fact, through the Ministry of Environment of the Republic of Indonesia in 2008, *Pesantren* implemented the Eco-*Pesantren* program to innovate in their role related to environmental conservation.⁹

PPTQ Al-Munawaroh is one of the Eco-*Pesantren*, where the model of education is based on environmentally friendly activities, including the development of health and environmental units in the *Pesantren*, environmental curricula, practical actions in waste management, clean water, sanitation, and toilets, serving as a model and learning experience for the surrounding community.

Furthermore, PTTQ Al-Munawaroh has chosen an innovative path by integrating the concept of green innovation into its operations. Green innovation aligns with the objectives, fundamental principles, and systems of Islamic economics, aiming to enhance human welfare and improve the quality of life for humans and nature. Green innovation can be defined as

⁷ Wahyu Eko Pujianto et al., "Eco-*Pesantren*: Islamic Boarding School Transformation Program to Support Natural Sustainability and Sustainable Development," *Proceedings of the International Conference on Industrial & Mechanical Engineering and Operations Management*, 2021, 873–85.

⁸ Izzatul Mardhiah and Rihlah Nur Aulia, "Menuju *Pesantren* Hijau: Dari *Pesantren* Merawat Bumi," *Prosiding Seminar Nasional Tahunan Fakultas Ilmu Sosial Universitas Negeri Medan* 1, no. 1 (2017): 616–21.

⁹ Yusuf, "Menuju *Pesantren* Hijau Dari *Pesantren* Merawat Bumi," *Jakarta: LPBI NU*, 2019.

the process of creating new or developing methods that contribute to reducing environmental damage and the negative consequences of resource exploitation.¹⁰ By emphasizing sustainable practices, the use of renewable energy sources, and environmental awareness, *Eco-Pesantren* should be able to create a positive impact in reducing their environmental footprint.

Based on the above background, the researcher intends to study green innovation at PPTQ Al Munawaroh Bungah Gresik, which includes Green Product Innovation, Green Process Innovation, and Green Organizational Innovation. PPTQ Al Munawaroh Bungah Gresik, as an *eco-Pesantren*, has produced economically valuable products made from waste and other materials, related to the field of economics, particularly Islamic economics. It is important to note that this research does not focus on the field of Islamic-based education.

The research method used is a qualitative descriptive approach. This qualitative descriptive methodology is employed to answer the research question: "How is the implementation of green innovation, specifically green product innovation, green process innovation, and green organizational innovation, related to the financial performance of Pondok Pesantren Al Munawaroh?" The chosen methodology facilitates the natural collection and analysis of data, allowing the researcher to focus entirely on the research object. This ensures the validity of the research findings.

The study is based on research instruments regarding the practices of green product innovation, green process innovation, and green organizational innovation, which include: using environmentally friendly materials; designing or

¹⁰ Xuemei Xie, Jiage Huo, and Hailiang Zou, "Green Process Innovation, Green Product Innovation, and Corporate Financial Performance: A Content Analysis Method," *Journal of Business Research* 101 (2019): 697–706, <https://doi.org/10.1016/j.jbusres.2019.01.010>; Klaus Rennings, "Redefining Innovation — Eco-Innovation Research and the Contribution from Ecological Economics," *Ecological Economics* 32 (2000): 319–32, <https://doi.org/10.1057/9780230339286>.

modifying products to enhance energy efficiency during use; low energy consumption (e.g., water, electricity, gas, etc.) in daily routines; utilizing cleaner technologies to achieve savings and avoid pollution; recycling; investing in equipment, lighting, heating, and services tailored to environmental evaluations; encouraging and motivating the residents of the Pesantren to adopt environmentally responsible attitudes; managing regular environmental audits and implementing corrective actions when necessary; and maintaining biodiversity.¹¹

Furthermore, data collection involved observations and semi-structured interviews with the caretakers of the Pesantren. Observations were conducted from 6:00 AM to 6:00 PM, as this is when activities at the Pesantren take place. The interviews lasted for 40 minutes, beginning with general questions about experiences related to environmental stewardship, followed by an exploration of the implementation of green innovation in the Pesantren.

The Role of Eco Pesantren Al Munawaroh in Implementing Green Innovation

In an effort to improve and develop a cleaner and healthier Pesantren environment, in 2008 the Ministry of Environment of the Republic of Indonesia launched a program called Eco Pesantren or environmentally friendly Pesantren. This program involves every member of the Pesantren community to actively participate in creating a clean and healthy environment. The general goal of Eco Pesantren is to transform the Pesantren area into a clean and environmentally

¹¹ Yu Shan. Chen, Shyh Bao. Lai, and Chao Tung Wen, "The Influence of Green Innovation Performance on Corporate Advantage in Taiwan," *Journal of Business Ethics* 67, no. 4 (2006): 331–39, <https://doi.org/10.1007/s10551-006-9025-5>; D Kasmir, "Kewirausahaan," *Raja Grafindo Persada. Jakarta, Indonesia*, 2013; Noor Aslinda Abu Seman et al., "The Mediating Effect of Green Innovation on the Relationship between Green Supply Chain Management and Environmental Performance," *Journal of Cleaner Production* 229 (2019): 115–27, <https://doi.org/10.1016/j.jclepro.2019.03.211>.

conscious area for the Pesantren community and the surrounding society, thereby enhancing activities with added economic, social, and ecological value.

Pondok Pesantren Al Munawaroh, located in Bungah, Gresik – East Java, was appointed by the Environmental Agency to be a model Eco Pesantren in Gresik Regency starting in 2019. Pondok Pesantren Al Munawaroh is led by a religious scholar and environmental activist, K.H. Muhammad Iqbal Abadi, Al-Hafidz, S.Q., S.H.I. (Gus Iqbal). Recognizing that environmental programs can be implemented consistently and gradually, the involvement of Pesantren leaders in the environmental field is also essential. This supports the social and cultural aspirations of the Pesantren, which is the domain of the Pesantren leadership. Gus Iqbal himself is the deputy chairman of Eco Pesantren East Java and a mentor for environmental programs in his neighborhood. Under the guidance of Gus Iqbal, Pondok Pesantren Al Munawaroh has grown with a strong orientation and commitment to environmental development. Pondok Pesantren Al Munawaroh has won national environmental competitions, which is one of the reasons it was chosen to represent Gresik Regency as an Eco Pesantren.

Pondok Pesantren Al Munawaroh received the Eco Pesantren award from East Java in 2019 and 2021, given by the Governor of East Java. This recognition makes it a model for developing environmentally friendly or green schools. The Eco Pesantren program aims to teach and instill a love for the environment in students, starting with simple actions such as waste disposal, conserving electricity and water, and minimizing plastic use. Physically, Pondok Pesantren Al Munawaroh provides various environmentally friendly facilities, such as waste bins divided into three categories: organic waste, non-valuable waste, and economically valuable waste. Pondok Pesantren Al Munawaroh also schedules regular cleaning activities that all community members must participate in. Although environmental issues are not officially part of the curriculum, they are always embedded in the

character of the community at Pondok Pesantren Al Munawaroh.

Pondok Pesantren Al Munawaroh has several policies and activities supporting environmental awareness, including efforts to conserve natural resources like electricity and water, contributing to reducing global warming by promoting a green and environmentally friendly Pesantren atmosphere, and cultivating ornamental and medicinal plants in every corner of the Pesantren. In terms of cleanliness, Pondok Pesantren Al Munawaroh organizes Safari Bersih, a clean-up walks where the community picks up trash and engages in joint clean-up activities with local residents. Additionally, they conduct composting training to maximize organic waste and implement the Biopori program in areas with minimal water absorption. Pondok Pesantren Al Munawaroh is also active in various environmental competitions, including recycled leather drum competitions. These policies and activities highlight that Pesantren is very open to positive activities related to environmental improvement and conservation, such as implementing green innovation.

Green Product Innovation and Financial Performance of Eco Pesantren Al Munawaroh

Green product innovation involves modifications to improve product design, quality, and safety. It also includes reducing the environmental impact throughout the product's life cycle, such as reducing toxins in production, using energy efficiently, and utilizing biodegradable packaging.¹² Green product innovation at Pondok Pesantren Al Munawaroh

¹² Tomas Hellström, "Dimensions of Environmentally Sustainable Innovation: The Structure of Eco-Innovation Concepts," *Sustainable Development* 15, no. 3 (2007): 148–59; Margarida Rodrigues and Mário Franco, "Green Innovation in Small and Medium-Sized Enterprises (SMEs): A Qualitative Approach," *Sustainability (Switzerland)* 15, no. 5 (2023): 1–12, <https://doi.org/10.3390/su15054510>.

emphasizes reducing the environmental impact of production, use, and disposal. Despite limitations in equipment and human resources for producing green products, Pondok Pesantren Al Munawaroh has innovatively recycled hand soap from used cooking oil and fertilizer from organic waste used in the daily activities of the Pesantren community, reducing operational costs and ultimately improving financial performance. These products are economically valuable with a long useful life, low emissions, and energy consumption during use, and they are toxin-free. Additionally, Pondok Pesantren Al Munawaroh has created eco-bricks, environmentally friendly bricks made from plastic waste. This innovation offers a solution for managing plastic waste as an alternative to conventional building materials like red bricks or concrete blocks. Although eco-bricks are functionally and economically beneficial, Pondok Pesantren Al Munawaroh does not produce them for sale but uses them in exhibitions or environmental competitions, teaching students about products that can be made from recycled plastic waste. This is due to limitations in mass production capabilities.

Green Process Innovation and Financial Performance of Eco Pesantren Al Munawaroh

Green process innovation refers to improving production process efficiency to reduce environmental impact, including actions aimed at reducing material and energy consumption, thus minimizing waste and using renewable energy sources.¹³ This type of green innovation addresses several environmental issues such as pollution prevention, waste recycling, energy

¹³ Yusen Luo, Zhengnan Lu, and Chao Wu, "Can Internet Development Accelerate the Green Innovation Efficiency Convergence: Evidence from China," *Technological Forecasting and Social Change* 189, no. 301 (2023): 122352, <https://doi.org/10.1016/j.techfore.2023.122352>; Hellström, "Dimensions of Environmentally Sustainable Innovation : The Structure of Eco-Innovation Concepts."

saving, and eco-friendly design.¹⁴ Green process innovation can be additive solutions integrated into the production process through input substitution, production optimization, or output recovery.¹⁵ Therefore, green process innovation practices in an organization are conducive to enhancing financial performance. At Pondok Pesantren Al Munawaroh, green process innovation focuses on energy consumption such as water and electricity. The Pesantren always rechecks the use of lights and water often left on by students. Besides saving water and electricity, this also prevents pollution from excessive use. Gus Iqbal acknowledges that regular monitoring has significantly reduced water and electricity costs. For recycling activities, Pondok Pesantren Al Munawaroh sorts waste into three categories: organic, non-valuable, and economically valuable waste. Economically valuable waste is designated for plastic bottles and glasses, sold to the local waste bank with a system where 75% of the sales proceeds go to the Pesantren's operational expenses and 25% for charity.

Green Organizational Innovation and Financial Performance of Eco Pesantren Al Munawaroh

Proactive green organizational innovation can prepare organizations to achieve superior performance by increasing environmental risk awareness and developing capabilities for sustainable environmental improvement.¹⁶ Green

¹⁴ Yu Chun Chang, "Strategy Formulation Implications from Using a Sustainable Growth Model," *Journal of Air Transport Management* 20 (2012): 1–3, <https://doi.org/10.1016/j.jairtraman.2011.03.010>; Javier González-Benito and Óscar González-Benito, "A Review of Determinant Factors of Environmental Proactivity," *Business Strategy and the Environment* 15, no. 2 (2006): 87–102, <https://doi.org/10.1002/bse.450>.

¹⁵ Rennings, "Redefining Innovation — Eco-Innovation Research and the Contribution from Ecological Economics."

¹⁶ Muhammad Imran and Gao Jingzu, "Green Organizational Culture, Organizational Performance, Green Innovation, Environmental Performance: A

organizational innovation can be defined as the values, principles, and beliefs that govern organizational behavior and activities related to the natural environment. This culture expresses an organization's unwavering commitment to environmental issues.¹⁷ Green organizational innovation pressures organizations to adhere to business principles and encourages them to do so. Consequently, green organizational innovation tends to influence the behavior of organization members through organizational goals and work ethos.¹⁸ At Pondok Pesantren Al Munawaroh, green organizational innovation practices start by encouraging and motivating the Pesantren community to adopt responsible waste disposal habits. The community is also reminded not to waste energy (such as water and electricity). Pondok Pesantren Al Munawaroh is highly committed to developing environmentally friendly activities, including preserving biodiversity, which has become part of the Pesantren. Moreover, Pondok Pesantren Al Munawaroh actively conducts environmental campaigns or training, such as planting medicinal plants within the community. By fostering a green culture and participating in environmentally friendly activities, Pondok Pesantren Al Munawaroh can maintain a competitive advantage to improve financial performance. This is reflected in the unique marketing value of Pondok Pesantren Al Munawaroh compared to other Pesantrens. Many students are attracted to study at Pondok Pesantren Al Munawaroh because of the green cultural concept implemented in the Pesantren.

Mediation-Moderation Model,” *Journal of Asia-Pacific Business* 23, no. 2 (2022): 161–82, <https://doi.org/10.1080/10599231.2022.2072493>.

¹⁷ Imran and Jingzu.

¹⁸ Christina Ling hsing Chang and Tung Ching Lin, “The Role of Organizational Culture in the Knowledge Management Process,” *Journal of Knowledge Management* 19, no. 3 (2015): 433–55, <https://doi.org/10.1108/JKM-08-2014-0353>.

Closing

This study aims to understand the implementation of green innovation at Eco Pesantren. The results of this study indicate that green innovation, which is divided into green product innovation, green process innovation, and green organizational innovation, has a positive impact on the financial performance of Al Munawaroh Islamic Boarding School, even though green innovation practices are still carried out in a very simple form. The residents of Al Munawaroh Islamic Boarding School demonstrate their environmental awareness through actions such as recycling products, waste sorting, collecting economically valuable waste, training in the production of environmentally friendly products, and other environmentally conscious activities. This study has direct implications for the role of green innovation in the context of Islamic boarding schools. The results obtained can enrich the literature on innovation, entrepreneurship, and management strategies, expanding the perspective on Islamic boarding schools that implement green innovation practices. In this context, it is said that Al Munawaroh Islamic Boarding School has understood the importance of implementing green innovation practices because the current climate uncertainty demands that every organization must advance in a sustainable manner. This means that Islamic boarding schools can become bridges towards a green and circular economy, considering that Islamic boarding schools represent religious institutions that have a strong influence not only on their residents but also on the surrounding community. Islamic boarding schools should start to be directed towards enriching knowledge about the environment both in extracurricular and intracurricular curricula so that they can practice environmental knowledge related to sustainability in their daily lives. On the other hand, the caregivers of the boarding schools must encourage residents to realize the importance of green innovation practices, which are pillars in improving financial performance. As a practical implication, it is important to refer to the

limitations experienced by Islamic boarding schools in accessing green innovation, particularly in terms of funding access, skill involvement, participation in knowledge networks, and information access. Therefore, it is crucial to provide means for Islamic boarding schools to go green as a way to enhance their competitiveness. On the other hand, the commitment of the caregivers to greening the Islamic boarding school is confirmed in this study, which shows that if the caregivers of the boarding school are sufficiently committed to green innovation practices, then it can be achieved. Moreover, Islamic boarding schools need external support, such as government incentives and public finance, to carry out ecological activities. Government subsidies and public support are essential for sustainable development in Islamic boarding schools.

References

- Al-Jayoussi. *Islam and Sustainable Development: New Worldviews*. Surrey: Gower, 2012.
- Aulia, Rihlah Nur, Dian Elvira Nanda Isnaini, and Umi Khumairoh. "Pengelolaan Lingkungan Berbasis Pesantren (Studi Kasus Di Pondok Pesantren Nurul Hakim Lombok)." *Hayula: Indonesian Journal of Multidisciplinary Islamic Studies* 1, no. 2 (2017): 229–44. <https://doi.org/10.21009/hayula.001.2.05>.
- Büyüközkan, Gülçin, and Yağmur Karabulut. "Sustainability Performance Evaluation: Literature Review and Future Directions." *Journal of Environmental Management* 217 (2018): 253–67. <https://doi.org/10.1016/j.jenvman.2018.03.064>.
- Chang, Christina Ling hsing, and Tung Ching Lin. "The Role of Organizational Culture in the Knowledge Management Process." *Journal of Knowledge Management* 19, no. 3 (2015): 433–55. <https://doi.org/10.1108/JKM-08-2014-0353>.
- Chang, Yu Chun. "Strategy Formulation Implications from Using a Sustainable Growth Model." *Journal of Air Transport*

- Management* 20 (2012): 1–3.
<https://doi.org/10.1016/j.jairtraman.2011.03.010>.
- Chen, Yu Shan., Shyh Bao. Lai, and Chao Tung Wen. “The Influence of Green Innovation Performance on Corporate Advantage in Taiwan.” *Journal of Business Ethics* 67, no. 4 (2006): 331–39. <https://doi.org/10.1007/s10551-006-9025-5>.
- González-Benito, Javier, and Óscar González-Benito. “A Review of Determinant Factors of Environmental Proactivity.” *Business Strategy and the Environment* 15, no. 2 (2006): 87–102. <https://doi.org/10.1002/bse.450>.
- Griggs, D, Stafford-Smith M, Gaffney O, Rockström J, Öhman M C, Shyamsundar P, Steffen W, Glaser G, Kanie N, and Noble N. “Sustainable Development Goals for People and Planet.” *Nature* 495, no. 7441 (2013): 305–7.
- Hellström, Tomas. “Dimensions of Environmentally Sustainable Innovation: The Structure of Eco-Innovation Concepts.” *Sustainable Development* 15, no. 3 (2007): 148–59.
- Imran, Muhammad, and Gao Jingzu. “Green Organizational Culture, Organizational Performance, Green Innovation, Environmental Performance: A Mediation-Moderation Model.” *Journal of Asia-Pacific Business* 23, no. 2 (2022): 161–82.
<https://doi.org/10.1080/10599231.2022.2072493>.
- Jabar, Nur Hidayah Abdul, Zul Ilham, Mohd Shaikh Saifuddeen, and Noor Naemah Abdul Rahman. “Green Energy towards Sustainability from the Islamic Perspective.” *International Journal of Sustainable Future for Human Security* 3, no. 2 (2016): 31–34.
<https://doi.org/10.24910/jsustain/3.2/3134>.
- Kasmir, D. “Kewirausahaan.” *Raja Grafindo Persada. Jakarta, Indonesia*, 2013.
- Luo, Yusen, Zhengnan Lu, and Chao Wu. “Can Internet Development Accelerate the Green Innovation Efficiency Convergence: Evidence from China.” *Technological Forecasting and Social Change* 189, no. 301 (2023):

122352. <https://doi.org/10.1016/j.techfore.2023.122352>.
- Mardhiah, Izzatul, and Rihlah Nur Aulia. "Menuju Pesantren Hijau: Dari Pesantren Merawat Bumi." *Prosiding Seminar Nasional Tahunan Fakultas Ilmu Sosial Universitas Negeri Medan* 1, no. 1 (2017): 616–21.
- Nurulloh, Endang Syarif. "Pendidikan Islam Dan Pengembangan Kesadaran Lingkungan." *Jurnal Penelitian Pendidikan Islam* 7, no. 2 (2019): 237. <https://doi.org/10.36667/jppi.v7i2.366>.
- Pujianto, Wahyu Eko, Ayu Lucy Larassaty, Muhafidhah Novie, Laily Muzdalifah, and Elsa Rosyidah. "Eco-Pesantren: Islamic Boarding School Transformation Program to Support Natural Sustainability and Sustainable Development." *Proceedings of the International Conference on Industrial & Mechanical Engineering and Operations Management*, 2021, 873–85.
- Rennings, Klaus. "Redefining Innovation — Eco-Innovation Research and the Contribution from Ecological Economics." *Ecological Economics* 32 (2000): 319–32. <https://doi.org/10.1057/9780230339286>.
- Rodrigues, Margarida, and Mário Franco. "Green Innovation in Small and Medium-Sized Enterprises (SMEs): A Qualitative Approach." *Sustainability (Switzerland)* 15, no. 5 (2023): 1–12. <https://doi.org/10.3390/su15054510>.
- Seman, Noor Aslinda Abu, Kannan Govindan, Abbas Mardani, Norhayati Zakuan, Muhamad Zamari Mat Saman, Robert E. Hooker, and Seckin Ozkul. "The Mediating Effect of Green Innovation on the Relationship between Green Supply Chain Management and Environmental Performance." *Journal of Cleaner Production* 229 (2019): 115–27. <https://doi.org/10.1016/j.jclepro.2019.03.211>.
- WCED. "Our Common Future, World Commission on Environment and Development (WCED)." *Oxford University Press*, 1987.
- Xie, Xuemei, Jiage Huo, and Hailiang Zou. "Green Process Innovation, Green Product Innovation, and Corporate Financial Performance: A Content Analysis Method."

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Journal of Business Research 101 (2019): 697–706.
<https://doi.org/10.1016/j.jbusres.2019.01.010>.

Yusuf. "Menuju Pesantren Hijau Dari Pesantren Merawat Bumi." *Jakarta: LPBI NU*, 2019.

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