International Conference on Sustainable Economics, Management, and Accounting (ICSEMA 2025)
Proceedings
Vol. 01 No.01 Year 2025, Page 1598-1603

ACCESS TO GREEN FINANCING FOR RURAL SMEs: THE STRATEGIC ROLE OF BANKING IN PROMOTING A SUSTAINABLE CIRCULAR ECONOMY IN INDONESIA

Fahmi Yulian Idris[1]*, Ary Yunanto[2]

[1,2] Postgraduate, Jendral Soedirman University, Indonesia
*Email corresponding author: yulian.idris@mhs.unsoed.ac.id

Abstract

This study examines how Indonesia's banking sector can unlock green financing for rural Micro, Small, and Medium Enterprises (MSMEs) and thereby accelerate the national transition toward a circular economy. Although rural MSMEs generate 61.1 % of GDP and employ more than 97 % of the workforce, most still operate in linear value chains and struggle to access sustainable credit. Green loans currently represent only 4.5 % of total bank lending and are concentrated among large corporations, leaving rural businesses underserved. Using a systematic literature review enriched with recent policy and financial data, we identify three intertwined barriers: limited green-finance literacy, rigid collateral-based credit scoring that overlooks environmental merit, and weak digital financial inclusion in rural areas. The paper proposes a strategic framework in which banks deploy inclusive green instruments such as earmarked micro-green loans and blended-finance guarantees embed environmental, social, and governance metrics into eligibility screening, and deliver targeted capacity-building programs through digital channels. By adopting these measures and collaborating with government agencies and business associations, banks can simultaneously mitigate portfolio risk, broaden their rural market, and catalyse MSME investment in renewable energy, waste valorisation, and resource-efficient production. The findings provide actionable guidance for policymakers and financial institutions seeking to scale sustainable finance and demonstrate the pivotal role of rural MSMEs in Indonesia's low-carbon economic transformation.

Keywords: circular economy, rural MSMEs, green financing, banking strategy, financial inclusion

INTRODUCTION

Access to green financing for rural Small and Medium Enterprises (SMEs) is becoming increasingly important in the context of sustainable economic development in Indonesia. SMEs serve as the main pillar of the national economy contributing around 61.1% of the Gross Domestic Product (GDP) and absorbing more than 97% of the workforce (Hayati & Yulianto, 2020). However, many rural SMEs face difficulties in gaining access to adequate finance, especially for sustainability-oriented and environmentally friendly projects (Anis et al., 2023). Currently, green credit represents only 4.5 percent of total bank financing and the majority is allocated to large companies, leaving rural MSMEs underserved (OJK, 2024). In an effort to achieve the Sustainable Development Goals (SDGs), especially the 8th goal that emphasizes inclusive and sustainable economic growth, the role of banking becomes very strategic. Banks in Indonesia are expected to not only focus on profitability, but also contribute to environmental sustainability through financing policies that support green projects (Kumar et al., 2024). Despite initiatives from the Financial Services Authority (OJK) to develop a sustainable finance roadmap, implementation on the ground still faces various obstacles, including a lack of understanding of sustainable finance principles among SMEs and banks (Abubakar et al., 2022).

One of the main challenges faced by rural SMEs is the lack of knowledge about green financing and its benefits. Many SMEs do not realize that green financing can help them develop a more sustainable business (Kumar et al., 2024). In addition, banks often prefer to lend to large companies that are considered more stable and have lower risks, so SMEs are often overlooked (Anis et al., 2023). Banking has an important role to play in changing this paradigm by providing more environmentally friendly products and services. By integrating environmental, social and governance (ESG) aspects in banking practices, banks can create synergies between economic growth and environmental preservation (Hayati & Yulianto, 2020). This is in line with the government's efforts to encourage sustainable economic growth and reduce negative impacts on the environment (OJK, 2024).

The novelty of this article lies in the in-depth analysis of access to green financing for rural SMEs and how banks can play a key role in promoting a sustainable circular economy. By adopting the principles of sustainable finance, banks can help SMEs to gain access to necessary financing for projects that support sustainability (Kumar et al., 2024). This will also help raise awareness of the importance of sustainability among SMEs. The importance of collaboration between banks, governments, and SMEs cannot be overlooked. This cooperation can create an ecosystem that supports the development of green financing and encourages SMEs to shift to more sustainable business practices (Anis et al., 2023). Thus, banking can act as a catalyst in the transition to a more sustainable circular economy in Indonesia (Hayati & Yulianto, 2020). This research aims to explore strategies that can be adopted by banks to increase access to green financing for rural SMEs and its impact on the circular economy in Indonesia. By understanding the challenges and opportunities, it is expected that effective solutions can be found to increase access to green financing for SMEs, so that they can contribute more to sustainable economic development (Kumar et al., 2024).

LITERATURE REVIEW

1. Green Financing
   Green financing is the provision of funds for projects that have a positive impact on the environment, including investments in renewable energy, energy efficiency, and other environmentally friendly practices. This concept is becoming increasingly important in the context of climate change and the need to achieve sustainable development goals (Yuliawati et al., 2017). Green financing not only helps reduce negative environmental impacts, but also encourages innovation and sustainable economic growth. In this case, financial institutions act as a link between investors and green projects, so that they can provide the financial support needed to realize sustainable initiatives (Sachs et al., 2019).
2. Small and Micro Enterprises (SMEs)
   Small and Micro Enterprises (SMEs) are a very important sector in the Indonesian economy, contributing significantly to job creation and economic growth. Despite the huge potential of SMEs, they often face challenges in accessing financing, especially for sustainability-oriented projects (Idrus et al., 2024). Many SMEs have not fully adopted environmentally friendly practices, which may hinder their ability to obtain financial support from financial institutions. Therefore, it is important for SMEs to understand and apply the principles of green financing in order to participate in a more sustainable economy and gain access to the resources necessary for their growth (Adhitya & Farida, 2023).
3. Banking
   Banking has a strategic role in supporting green financing and promoting sustainability in the SME sector. As financing providers, banks are not only responsible for providing funds, but also for ensuring that the financed projects do not harm the environment (Adhitya & Farida, 2023). Banks can develop financing products specifically designed to support SMEs in implementing green practices, such as loans for renewable energy projects or waste

management initiatives. In addition, banks can also play a role in increasing the awareness and capacity of SMEs through education and training programs on green financing, so that they can be better equipped to adopt sustainable practices and gain access to the necessary financing (Maryanti et al., 2021).

4. Circular economy

Circular economy is an economic model that focuses on reducing waste and efficient use of resources through recycling and reuse practices (Giagnocavo in Yi, 2023). In the context of SMEs, implementing circular economy principles can help improve sustainability and operational efficiency, while reducing the environmental impact of their business activities (Idrus et al., 2024). By integrating the circular economy into their business strategy, SMEs can not only reduce their operational costs, but also increase their competitiveness in a market that is increasingly concerned about environmental issues. Therefore, support from banks in the form of green financing is crucial to encourage SMEs to shift to a more sustainable circular economy model, which in turn can contribute to broader economic growth and environmental preservation (Sachs et al., 2019).

Table 1. Previous Research

Name of Author	Title of Article	Research Result	Limitation
(Adhitya & Farida, 2023))	Green Banking and Infrastructure Project Financing for Sustainable Development	Research shows that banks have a responsibility towards the environmental risks of the projects they finance, and green banking can help achieve sustainable development.	Limited to data taken from the SRI index and does not cover all banks in Indonesia.
(Kumar et al., 2024)	Green Finance in Circular Economy: A Literature Review	Green finance has the potential to support the circular economy and sustainability, but challenges remain in terms of understanding and implementation among businesses.	It does not include in-depth empirical studies and focuses more on analyzing the literature.
(Putri & Ros Bangun , 2023)	Identifying Environmental, Social, and Governance (ESG) Implementation towards Growth and Sustainability	ESG implementation in SMEs can improve growth and sustainability, but many SMEs have yet to implement environmentally friendly practices.	Limited to SMEs assisted by Bank Indonesia and does not include other SMEs.
(Idrus et al., 2024)	Analysis of the Relationship between the Implementation of Circular Economy Principles and Financial Inclusion to Poverty Alleviation in Indonesia	There are synergies between circular economy principles and financial inclusion that can help reduce poverty, but there are challenges in accessing finance for businesses that embrace these principles.	Qualitative in nature and may not be generalizable to all contexts in Indonesia.

(Krisna Bayu & Novita, 2021)	Analysis of Sustainable Finance and Green Financing Disclosure in Indonesian Banking	The disclosure of sustainable finance and green financing in Indonesian banks is still relatively low, although there has been an increase since the issuance of OJK regulations.	It only covers 15 banks that report sustainability reports and does not cover all banks in Indonesia.
(Maryanti et al., 2021)	Banking Sustainability in Indonesia	Banks in Indonesia have shown a positive response to sustainability issues, but challenges remain in the overall implementation of sustainability principles.	It does not cover all banks in Indonesia and focuses more on large banks.
(Fakhira et al., 2023)	Green Banking Adoption Strategy (Case Study of Banks in Jabodetabek)	All variables affecting green banking adoption have a strong relationship, and adoption strategies can be carried out through product innovation and increased public education.	Limited to banks in Jabodetabek and does not cover other regions in Indonesia.

RESEARCH METHODS

The research method used in this study is a literature study. Literature study is a process that involves collecting data from various sources, reading, recording, and processing relevant information for research. Through this study, researchers can study reference books and the results of previous related research so as to build a theoretical basis for the problem being studied. Literature study also means collecting data by examining books, articles, notes, and reports that are relevant to the problem to be solved. According to (Sugiyono, 2015) literature studies are theoretical studies and references related to culture, values, and norms in the social context being studied. In this study, the type of data used is secondary data, which is obtained from various institutional reports, scientific articles, websites, books, and relevant regulations. The main source of data is journals published by trusted publishers. The data collection technique used in this research is documentation, which is looking for information about variables in the form of notes, books, papers, articles, journals, and so on (Arikunto, 2016). After all the data is collected, the next step is to analyze the data to draw conclusions.

RESULTS AND DISCUSSION

Access to Green Financing for Rural SMEs: Barriers and Needs

The literature review revealed that access to green financing for rural SMEs in Indonesia still faces significant obstacles. The green financing theory that states the provision of funds for projects with positive environmental impacts (Yuliawati et al., 2017) has not been fully realized in the rural SME sector. Although SMEs are a pillar of the national economy, many of them have difficulty gaining access to adequate finance for sustainable projects (Anis et al., 2023). This is in line with the theoretical explanation of SMEs which states that this sector often faces challenges in accessing financing, especially for sustainability-oriented projects (Idrus et al., 2024). This limitation is exacerbated by SMEs' lack of understanding about green financing and its benefits (Kumar et al., 2024). Data shows that the volume of green financing in Indonesia's banking sector is still very low, only 4.5% of total national credit, with the majority channeled to large companies (OJK, 2024). This

indicates that banks, despite their strategic role in supporting green financing (Adhitya & Farida, 2023) still tend to favor borrowers that are considered more stable, ignoring the potential of SMEs.
Banking's Role as a Catalyst for Circular Economy

In accordance with banking theory that emphasizes the bank's responsibility not only in providing funds but also ensuring the financed projects do not damage the environment (Adhitya & Farida, 2023), the review results show that banking has a central role in encouraging a circular economy. The integration of ESG aspects in banking practices can create synergies between economic growth and environmental preservation (Hayati & Yulianto, 2020). Banks can develop specialized financing products for SMEs that implement environmentally friendly practices, such as loans for renewable energy or waste management. However, a critical analysis of the literature also highlights that the disclosure of sustainable finance and green financing in Indonesian banks is still low in Krisna Bayu & Novita's (2021) study, despite the positive response to sustainability issues (Maryanti et al., 2021). This indicates a gap between commitment and implementation. To support SMEs' transition to a circular economy model, which focuses on waste reduction and efficient resource use (Giagnocavo in Yi, 2023). Banks need to be more proactive in providing financial support and education. Green financing support from banks is essential for SMEs to transition to a more sustainable circular economy model (Sachs et al., 2019).

Banks can technically play this role by developing and offering specific financial products such as green loans and bonds whose funds are allocated to green initiatives, as reflected by green lending (Febrianto et al., 2024). Banks also actively provide financial incentives, such as lower interest rates for SMEs that adopt sustainable business practices and reduce greenhouse gas emissions, thereby encouraging the adoption of green practices (Febrianto et al., 2024). Furthermore, banks are technically expanding their risk assessment frameworks to include environmental and social aspects beyond financial risks, to strengthen their risk mitigation capabilities related to their investment portfolios (Febrianto et al., 2024).

Strategy for Improving Green Financial Access and Literacy

To overcome the barriers, the literature underscores the need for a comprehensive strategy. Improving green finance literacy among rural SMEs is key, as lack of knowledge is a major challenge (Abubakar et al., 2022). Banks can play a role in increasing the awareness and capacity of SMEs through education and training programs on green financing (Maryanti et al., 2021). This is in line with the findings of Fakhira et al (2023) who stated that green banking adoption strategies can be carried out through product innovation and increased public education. In addition, financial inclusion and digital access in rural areas are also crucial. There are synergies between circular economy principles and financial inclusion that can help reduce poverty (Idrus et al., 2024). By facilitating digital access, SMEs can more easily apply for and manage green financing. Collaboration between banks, governments, and SMEs is essential to create an ecosystem that supports the development of green financing and encourages SMEs to shift to more sustainable business practices (Anis et al., 2023). This will enable SMEs to contribute more to sustainable economic development, in line with the SDGs goals that emphasize inclusive and sustainable economic growth.

CONCLUSION

This article asserts that access to green financing for rural Small and Medium Enterprises (SMEs) is a vital key in driving a sustainable circular economy in Indonesia, where banks play a strategic role as the main catalyst. Although rural SMEs contribute significantly to the economy, they still face serious obstacles in securing green financing, mainly due to banks' lack of understanding and preference for larger entities, which is reflected in the low allocation of green credit to the sector. Therefore, banks should be proactive in developing inclusive green finance instruments, simplifying eligibility criteria based on environmental considerations, and massively increasing green finance literacy and digital access in rural areas. Close collaboration between banks, government, and SME players is essential to create a supportive ecosystem, enable rural SMEs to adopt sustainable business practices, and ultimately, accelerate Indonesia's transition to a resilient and environmentally-friendly circular economy.

The limitations of this study lie in the limited scope of data from a few references, the focus on systematic literature analysis without primary data collection from some sources and the potential limitations of publication time which may not fully reflect the current dynamics.

BIBLIOGRAPHY

Abubakar, L., Handayani, T., Ir Soekarno km, J., & Sumedang, J. (2022). *DIGITAL PERBANKAN DI ERA EKONOMI DIGITAL* (Vol. 51, Issue 3).

Adhitya, F., & Farida, D. N. (2023). Green Banking: The Trend of Maintaining Sustainability of Environmental Business. *Global Review of Islamic Economics and Business*, *11*(1), 084–094. https://doi.org/10.14421/grieb.2023.111-05

Anis, I., Gani, L., Fauzi, H., Hermawan, A. A., & Adhariani, D. (2023). The sustainability awareness of banking institutions in Indonesia, its implication on profitability by the mediating role of operational efficiency. *Asian Journal of Accounting Research*, *8*(4), 356–372. https://doi.org/10.1108/AJAR-06-2022-0179

Arikunto, S. (2016). *Metodologi Penelitian*. Bina Askara.

Fakhira, N., Zulbainarni, N., & Simanjuntak, M. (2023). Green Banking Adoption Strategy (Case Study of Banks in Jabodetabek). *Indonesian Journal of Business and Entrepreneurship*. https://doi.org/10.17358/ijbe.9.1.49

Febrianto, G. N., Ayu, I., & Brahmayanti, S. (2024). *Yudishtira Journal: Indonesian Journal of Finance and Strategy Inside STRATEGI PERBANKAN DALAM IMPLEMENTASI GREEN ECONOMY*. *4*, 2024. https://doi.org/10.53363/yud.v4i2.88

Hayati, N., & Yulianto, E. (2020). Peranan Keuangan Berkelanjutan Pada Industri Perbankan Dalam Mendukung Sustainable Development Goals. In *Jurnal Akuntansi Bisnis dan Ekonomi* (Vol. 6, Issue 1).

Idrus, R. A., Sudarmanto, E., & Muhtadi, M. A. (2024). Analysis of the Relationship between the Implementation of Circular Economy Principles and Financial Inclusion to Poverty Alleviation in Indonesia. In *West Science Social and Humanities Studies* (Vol. 02, Issue 04).

Krisna Bayu, E., & Novita, N. (2021). *Analisis Pengungkapan Sustainable Finance dan Green Financing Perbankan di Indonesia*.

Kumar, B., Kumar, L., Kumar, A., Kumari, R., Tagar, U., & Sassanelli, C. (2024). Green finance in circular economy: a literature review. In *Environment, Development and Sustainability* (Vol. 26, Issue 7, pp. 16419–16459). Springer Science and Business Media B.V. https://doi.org/10.1007/s10668-023-03361-3

Maryanti, M., Putra, F., Ariyanto, E., & Anwar, A. (2021, May 12). *Banking Sustainability in Indonesia*. https://doi.org/10.4108/eai.6-3-2021.2305976

OJK. (2024). *ROADMAP KEUANGAN BERKELANJUTAN TAHAP II (2021 – 2025)*.

Putri, A. J., & Ros Bangun, M. Y. (2023). Identifying Environmental, Social, and Governance (ESG) Implementation towards Growth and Sustainability: A Case Study at Assisted Micro, Small, and Medium Enterprise (MSME) by Bank Indonesia. *International Journal of Current Science Research and Review*, *06*(07). https://doi.org/10.47191/ijcsrr/V6-i7-61

Sachs, J. D., Woo, W. T., Yoshino, N., & Taghizadeh-Hesary, F. (2019). *Importance of green finance for achieving sustainable development goals and energy security*.

Sugiyono. (2015). Sugiyono, Metode Penelitian dan Pengembangan Pendekatan Kualitatif, Kuantitatif, dan R&D , (Bandung: Alfabeta, 2015), 407 1. *Metode Penelitian Dan Pengembangan Pendekatan Kualitatif, Kuantitatif, Dan R&D*.

Yi, Ilcheong. (2023). *Encyclopedia of the social and solidarity economy : a collective work of the United Nations Inter-agency Task Force on SSE (UNTFSSE)*. Edward Elgar Publishing Limited.

Yuliawati, T., Mustika Rani, A., & Roosallyn Assyofa, A. (2017). *Efektivitas Implementasi Green Financing Sebagai Alternatif Pembiayaan Berkelanjutan Bagi UMKM Sektor Industri Pengolahan Alas Kaki Di Kota Bandung*.