



Integrated Sustainability: Embedding Eco-Friendly Practices in Indonesia's Banking Sector

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ABSTRACT:

The banking sector in Indonesia holds significant potential to promote sustainability through green financing initiatives and the adoption of environmentally friendly practices. By investing in renewable energy sources, reducing carbon footprints, and collaborating with stakeholders, banks can drive positive environmental change and contribute to a more sustainable future. Key recommendations include integrating Environmental, Social, and Governance (ESG) criteria into business processes, offering innovative green financial products, and establishing a strong culture of sustainability within the banking sector. Additionally, it is crucial for stakeholders to actively advocate for sustainability in the banking sector to ensure that these efforts have a significant long-term impact. With these steps, the banking sector in Indonesia can not only enhance their own environmental performance but also play a pivotal role in supporting the transition towards a greener and more sustainable economy. It is hoped that these collaborative efforts will create a better and more sustainable future for all parties involved.

Key Words: Green Financing, Stakeholder Collaboration, Sustainable Banking

Introduction

Climate change's urgency escalates as extreme weather and warming trends intensify. Human-induced emissions necessitate swift mitigation. This crisis spans health, economy, and ecology(1–6). Emission cuts and climate adaptation are imperative to avert disaster. Collective action from governments, businesses, and individuals is vital. Sustainable practices and policies can shrink our carbon footprint and safeguard our future. Renewable energy investments, conservation promotion, and resilient infrastructure support are key actions. Solar panels on buildings, for example, cut fossil fuel dependence and emission(7,8). Urban green spaces combat heat islands and enhance air quality. However, these measures alone may not suffice in heavily polluted or deforested regions. Without robust regulations and corporate commitment to sustainability, environmental degradation may persist. Some may argue that the costs associated with implementing sustainable practices and policies are too high and could negatively impact economic growth. However, studies have shown that investing in renewable energy and climate-resilient infrastructure can create jobs and stimulate economic development in the long run. Therefore, it is crucial for governments, businesses, and individuals to prioritize sustainability and take action to combat climate change(9–13). By investing in renewable energy sources and implementing green policies, we can not only protect the environment but also boost the economy and create a more sustainable future for generations to come. It is important to recognize that the benefits of sustainability far outweigh the costs, and the time to act is now before irreversible damage is done to our planet(14–16).

Banks play a pivotal role in steering investments into sustainable ventures. They must embed green finance into their offerings and elevate eco-initiatives to combat climate change effectively. Incentivizing green investments and enforcing rigorous environmental criteria for loans can drive clients towards eco-consciousness(17,18). Furthermore, banks uniting with peers and stakeholders can champion a collective march towards an eco-friendly economy. This research delves into the influence of banks' green financing on curbing climate change and advancing sustainability. It examines the banks' role in endorsing eco-friendly practices via financial offerings and stakeholder alliances. The study also aims to pinpoint hurdles in green finance execution and suggest solutions. The ultimate objective is to underscore banking's pivotal part in environmental betterment and economic sustainability(19,20).

Current State of Banking Sector in Indonesia

In the Indonesian banking sector, there's a growing enthusiasm for green financing and sustainable practices. Environmental considerations are now influencing the lending decisions of several banks(21–23). Nonetheless, widespread adoption faces hurdles such as customer awareness and regulatory barriers. Addressing these issues is essential for the banking sector to effectively contribute to Indonesia's sustainability objectives(24,25). Banks can raise awareness and drive the uptake of green financing by engaging with stakeholders and conducting educational initiatives. Furthermore, it's crucial to work with regulators to overcome obstacles and create an environment conducive to sustainable banking(26,27). This will be key to the success of green financing efforts in the long term. A careful assessment and mitigation of risks are necessary to ensure the transition to sustainable banking practices

is successful. The banking sector must adopt more eco-friendly policies and operations to reduce environmental harm(28,29). Transparency and accountability in green financing are also critical to build trust among investors and stakeholders. Strong monitoring and reporting systems are needed to verify that investments are channeled effectively into environmentally sustainable projects(30,31).

The banking sector is actively developing green bonds, sustainable investment funds, and forging partnerships with renewable energy firms(32,33). These efforts channel funds into environmentally beneficial projects, yielding financial gains for investors. Banks are also embedding Environmental, Social, and Governance (ESG) standards into their investment strategies to support sustainability. By participating in these initiatives, banks demonstrate their commitment to combating climate change and promoting a sustainable future for all involved parties(34–36). Additionally, by backing renewable energy ventures, banks play a pivotal role in advancing a low-carbon economy and curtailing greenhouse gas emissions. This approach not only safeguards the environment but also reduces climate-related risks for financial entities and society at large(37,38).

Environmental Challenges Faced by Indonesian Banks

Indonesian banks are stepping up to tackle the environmental impact of industrial pollution on ecosystems(39). They're integrating eco-friendly measures into their operations, playing a pivotal role in preserving the nation's natural wealth and diverse species. This commitment not only protects the environment but also resonates with increasingly eco-aware customers, bolstering trust. Banks are proactively adopting practices that contribute to a greener planet for the coming generation(37,40–42).

Initiatives like shifting to renewable energy and enhancing energy efficiency are key strategies banks are employing to cut down pollution. Investments in green tech and backing sustainable ventures underscore their environmental dedication(39,43). Banks are also promoting green finance options, spurring clients to make sustainable choices, which amplifies the positive environmental and societal impact. Moreover, banks are refining their internal operations to be more eco-conscious(44,45). They're embracing recycling, advocating for digital documentation to cut down on paper use, and managing waste better. Energy-saving measures like LED lights and motion sensors in branches underscore their commitment to the environment. By lowering energy use, banks are reducing their carbon footprint, contributing to a healthier planet for future generations(46,47).

Strategies for Promoting Environmental-Friendly Practices in Indonesian Banks

Banks can actively promote sustainability by establishing oversight mechanisms in every branch(48,49). They can reward customers who opt for paperless banking and inspire employees to carpool or use public transportation, nurturing an eco-friendly banking environment in Indonesia. Conducting regular energy and waste audits can reveal areas for ecological improvements. Collaborations with environmental organizations and participation in local clean-up events can demonstrate a bank's dedication to green practices and inspire community involvement(50–52). By investing in renewable energy sources such as solar panels and wind turbines, banks can significantly reduce their carbon emissions and reliance on non-renewable energy(53,54). Adopting green construction methods and installing energy-efficient fixtures are key steps towards a more sustainable banking industry. Transitioning to paperless operations and digital banking reduces waste, and employee training programs ensure that the bank's workforce is in sync with its environmental goals. These initiatives not only diminish the ecological footprint but also position the bank as a leader in sustainability(55–59).

Banks collaborating with like-minded entities can amplify their eco-friendly impact. Active involvement in community eco-projects and backing green causes positions a bank as a sustainability champion(60–64). Renewable energy investments for bank operations can make a significant dent in carbon emissions. Transparent reporting on environmental metrics affirms a bank's dedication to accountable and sustainable practices(65–69).

Case Studies of Environmental-Friendly Banks in Indonesia

Bank Mandiri's digital banking initiatives and Bank Rakyat Indonesia's solar-powered branches exemplify the shift towards sustainability in Indonesian banking(70). These success stories inspire other banks to adopt eco-friendly practices, highlighting the dual benefits for the environment and profitability. Sharing insights and collaborating with energy providers and regulators can help banks navigate the transition to greener operations. Such partnerships provide access to resources and expertise, fostering a sustainable banking sector. Engaging customers and emphasizing sustainability's importance can also spur the widespread adoption of green practices(70). By embedding sustainability in their strategies, banks not only minimize environmental impact but also attract eco-conscious stakeholders, securing long-term success and a healthier planet(44–46,48,49,53).

Indonesian banks are leading the charge towards a greener, more responsible economy, setting a precedent for future generations(40,58). Their sustainability commitments have yielded enhanced brand value, customer trust, and financial success. By publicizing their achievements and the real-world benefits of their green initiatives, these banks inspire other sectors to pursue environmental and social betterment(29,31,32,42,51). Collaborative efforts and shared expertise among Indonesian banks are catalyzing the adoption of sustainable practices industry-wide, fostering a collective movement towards a more resilient future. This synergy is driving substantial, positive change, benefiting the economy, the environment, and society in a profound, expansive wave(19,24,35,47,64,66,67).

As Indonesian banks roll out sustainability initiatives, sharing their journey offers valuable lessons for other sectors(27,41,42,49,68). By openly discussing both triumphs and setbacks, these banks can motivate wider action towards global sustainability. Collaborative exchanges of best practices enhance the impact of these initiatives, nurturing an innovative, progressive banking culture(9,14,20,57). Transparency and accountability cement trust with

stakeholders, affirming the banks' pledge to a brighter future. Engaging in dialogue and seeking community feedback ensures that sustainability efforts resonate with societal needs(21,39,61,70). This united approach propels significant, sustainable progress for all.

Recommendations for a Sustainable Banking Sector in Indonesia

Establishing clear directives and rewards for eco-friendly banking, alongside strict adherence to environmental and social norms, is essential. Building alliances among banks, NGOs, and other entities fosters a comprehensive sustainability strategy within the financial sector(21,45,50,59). Stakeholders can champion transparency and accountability, ensuring the prioritization and maintenance of green practices. Such collaborative efforts can forge a robust, ethical financial system that serves society and the environment. Regular reports and independent evaluations bolster the trustworthiness of sustainable banking. Moreover, engaging with regulators and industry specialists spurs innovation and excellence in green finance(37,48,54,64,70,71).

Banks are actively embedding ESG criteria into their decision-making, launching green financial products, and engaging stakeholders to meet sustainability demands(34,71). Investments in renewable energy and community projects underscore their dedication to sustainable growth. These strategies not only reduce climate-related risks but also foster a greener future for customers and the planet. Such forward-thinking practices bolster bank reputations and draw investors eager to support eco-friendly financial endeavors(9,11,20,57).

Banks are actively incorporating green practices, incentivizing sustainable investments, and fostering education on environmental stewardship. Such integration of sustainability into their strategic core propels them to the forefront of an eco-conscious economic shift(17,27,54,62). This strategic positioning not only sets them apart from rivals but also resonates with the increasing base of eco-aware consumers. Moreover, banks are enhancing their sustainability pledge through partnerships and industry-wide initiatives. Engaging stakeholders and reporting on sustainability initiatives transparently, banks are cultivating trust and establishing their reputation in the community(1,28,56). These efforts are pivotal for achieving enduring success and adaptability in a dynamic market, especially as consumer preferences tilt towards businesses with a strong environmental and social ethos(55)s.

Conclusion

Banks stand at the forefront of a significant shift, with sustainability initiatives offering a chance to bolster their reputation and market position. A deep-rooted commitment to environmental and social responsibility not only draws customers but also paves the way for a sustainable future, enhancing trust and yielding financial benefits. Stakeholders play a crucial role, urging banks to embrace eco-friendly practices and green financing, which in turn fosters positive change and attracts conscientious investors. As Indonesia's economy expands, its banking sector is uniquely positioned to champion sustainable practices, setting a precedent for others and advancing national sustainability objectives.

REFERENCE

1. AghaKouchak A, Chiang F, Huning LS, ... Climate extremes and compound hazards in a warming world. *Annual Review of ...* [Internet]. 2020; Available from: <https://www.annualreviews.org/doi/abs/10.1146/annurev-earth-071719-055228>
2. Ripple WJ, Wolf C, Newsome TM, Barnard P, ... World scientists' warning of a climate emergency. *Bioscience* [Internet]. 2020; Available from: <https://www.jstor.org/stable/26891410>
3. McMichael AJ, Lindgren E. Climate change: present and future risks to health, and necessary responses. *J Intern Med* [Internet]. 2011; Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1365-2796.2011.02415.x>
4. Stern N. *Why are we waiting?: The logic, urgency, and promise of tackling climate change* [Internet]. books.google.com; 2015. Available from: <https://books.google.com/books?hl=en&lr=&id=stB7CAAQBAJ&oi=fnd&pg=PR7&dq=climate+change%27s+urgency+escalates+as+extreme+weather+and+warming+trends+intensify&ots=hB9Kb1Ji1b&sig=hvQEXzYOQosQpN-8jwdGgkXq6dQ>
5. Kemp L, Xu C, Depledge J, Ebi KL, ... Climate Endgame: Exploring catastrophic climate change scenarios. *Proceedings of the ...* [Internet]. 2022; Available from: <https://www.pnas.org/doi/abs/10.1073/pnas.2108146119>
6. Ripple WJ, Wolf C, Gregg JW, Levin K, Rockström J, ... World scientists' warning of a climate emergency 2022 [Internet]. academic.oup.com; 2022. Available from: <https://academic.oup.com/bioscience/article-abstract/72/12/1149/6764747>
7. Radunsky K, Cadman T. Addressing Climate Change Risks: Importance and Urgency. *Handbook of Climate Change Management ...* [Internet]. 2021; Available from: https://link.springer.com/content/pdf/10.1007/978-3-030-57281-5_288.pdf
8. Pan T, Cui C, Qin B, Ding K, Zhou J. Climate change intensifies algal biomass resurgence in eutrophic Lake Taihu, China. *Science of The Total Environment* [Internet]. 2024; Available from: <https://www.sciencedirect.com/science/article/pii/S0048969724020771>
9. Gills B, Morgan J. Global climate emergency: After COP24, climate science, urgency, and the threat to humanity. *Globalizations* [Internet]. 2020; Available from: <https://www.tandfonline.com/doi/abs/10.1080/14747731.2019.1669915>
10. Zhang X, Lu C, Guan Z. Weakened cyclones, intensified anticyclones and recent extreme cold winter weather events in Eurasia. *Environmental Research Letters* [Internet]. 2012; Available from: <https://iopscience.iop.org/article/10.1088/1748-9326/7/4/044044/meta>

11. Day JW, Rybczyk JM. Global change impacts on the future of coastal systems: perverse interactions among climate change, ecosystem degradation, energy scarcity, and population. *Coasts and Estuaries* [Internet]. 2019; Available from: <https://www.sciencedirect.com/science/article/pii/B9780128140031000368>
12. Council C. Climate change 2015: growing risks, critical choices [Internet]. apo.org.au; 2015. Available from: <https://apo.org.au/node/56783>
13. Steffen W, Rice M, Alexander D. 2017: Another record breaking year for heat and extreme weather [Internet]. apo.org.au; 2018. Available from: <https://apo.org.au/sites/default/files/resource-files/2018-01/apo-nid128621.pdf>
14. Singh BR, Singh O. Study of impacts of global warming on climate change: rise in sea level and disaster frequency. *Global warming—impacts and future ...* [Internet]. 2012; Available from: https://books.google.com/books?hl=en&lr=&id=zOKdDwAAQBAJ&oi=fnd&pg=PA93&dq=climate+change%27s+urgency+escalates+as+extreme+weather+and+warming+trends+intensify&ots=DGLLfB3m&sig=IoJrs5RM39ReLBJPh4yA_pF2QqM
15. Schneider RO. Climate change: an emergency management perspective. *Disaster Prevention and Management: An ...* [Internet]. 2011; Available from: <https://www.emerald.com/insight/content/doi/10.1108/09653561111111081/full/html>
16. Blackwell PJ. East Africa's Pastoralist Emergency: is climate change the straw that breaks the camel's back? *Third World Q* [Internet]. 2010; Available from: <https://www.tandfonline.com/doi/abs/10.1080/01436597.2010.541085>
17. Oyewole AT, Adeoye OB, Addy WA, Okoye CC, ... Promoting sustainability in finance with AI: A review of current practices and future potential. *World Journal of ...* [Internet]. 2024; Available from: <https://wjarr.com/content/promoting-sustainability-finance-ai-review-current-practices-and-future-potential>
18. Adeoye OB, Chigozie AE, Nwakamma NE, Danny JM, ... A conceptual framework for data-driven sustainable finance in green energy transition [Internet]. *philpapers.org*; 2024. Available from: <https://philpapers.org/rec/ADEACF>
19. Dell'Erba M. Sustainable digital finance and the pursuit of environmental sustainability. *Sustainable Finance in Europe: Corporate Governance ...* [Internet]. 2024; Available from: https://link.springer.com/chapter/10.1007/978-3-031-53696-0_3
20. Oyewole AT, Adeoye OB, Addy WA, Okoye CC, ... Enhancing global competitiveness of US SMES through sustainable finance: a review and future directions. *International Journal of ...* [Internet]. 2024; Available from: <https://www.fepbl.com/index.php/ijmer/article/view/876>
21. Li Y, Chen R, Xiang E. Corporate social responsibility, green financial system guidelines, and cost of debt financing: Evidence from pollution-intensive industries in China. *Corporate Social Responsibility and ...* [Internet]. 2022; Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1002/csr.2222>
22. Khan HZ, Bose S, Sheehy B, ... Green banking disclosure, firm value and the moderating role of a contextual factor: Evidence from a distinctive regulatory setting. *Business Strategy and the ...* [Internet]. 2021; Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1002/bse.2832>
23. Chatzitheodorou K, Tsalis TA, Tsagarakis KP, ... A new practical methodology for the banking sector to assess corporate sustainability risks with an application in the energy sector. *Sustainable Production ...* [Internet]. 2021; Available from: <https://www.sciencedirect.com/science/article/pii/S2352550921000786>
24. Huang H, Chau KY, Iqbal W, Fatima A. Assessing the role of financing in sustainable business environment. *Environmental Science and ...* [Internet]. 2022; Available from: <https://link.springer.com/article/10.1007/s11356-021-16118-0>
25. Nwagwu I. Driving sustainable banking in Nigeria through responsible management education: The case of Lagos Business School. *The International Journal of Management Education* [Internet]. 2020; Available from: <https://www.sciencedirect.com/science/article/pii/S1472811719300990>
26. Bukhari SAA, Hashim F, Amran A. Determinants of green banking adoption: a theoretical framework. *KnE Social Sciences* [Internet]. 2019; Available from: <https://knepublishing.com/index.php/KnE-Social/article/view/5041>
27. Gunawan J, Permatasari P, Sharma U. Exploring sustainability and green banking disclosures: a study of banking sector. *Environment, Development and ...* [Internet]. 2022; Available from: <https://link.springer.com/article/10.1007/s10668-021-01901-3>
28. Miah MD, Rahman SM, Mamoon M. Green banking: The case of commercial banking sector in Oman. *Environment, Development and ...* [Internet]. 2021; Available from: <https://link.springer.com/article/10.1007/s10668-020-00695-0>
29. Berrou R, Ciampoli N, Marini V. Defining green finance: Existing standards and main challenges. *The rise of green finance in Europe ...* [Internet]. 2019; Available from: https://link.springer.com/chapter/10.1007/978-3-030-22510-0_2
30. Tran T, Do H, Vu T, Do N. The factors affecting green investment for sustainable development. *Decision Science Letters* [Internet]. 2020; Available from: <http://m.growingscience.com/beta/dsl/3973-the-factors-affecting-green-investment-for-sustainable-development.html>
31. Bukhari SAA, Hashim F, Amran A. Green Banking: A road map for adoption. *International Journal of Ethics and ...* [Internet]. 2020; Available from: <https://www.emerald.com/insight/content/doi/10.1108/IJOES-11-2019-0177/full/html>

32. Akomea-Frimpong I, Kukah AS, Jin X, ... Green finance for green buildings: a systematic review and conceptual foundation. *Journal of Cleaner ...* [Internet]. 2022; Available from: <https://www.sciencedirect.com/science/article/pii/S0959652622014792>
33. Kumar K, Prakash A. Managing sustainability in banking: extent of sustainable banking adaptations of banking sector in India. *Environ Dev Sustain* [Internet]. 2020; Available from: <https://link.springer.com/article/10.1007/s10668-019-00421-5>
34. Starks LT. Presidential Address: Sustainable Finance and ESG Issues—Value versus Values. *J Finance* [Internet]. 2023; Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1111/jofi.13255>
35. Khan KI, Mata MN, Martins J, Nasir A, ... Impediments of green finance adoption system: Linking economy and environment. ... of green finance ... [Internet]. 2022; Available from: <https://repositorio.iscte-iul.pt/handle/10071/25163>
36. Sharma GD, Verma M, Shahbaz M, Gupta M, ... Transitioning green finance from theory to practice for renewable energy development. *Renew Energy* [Internet]. 2022; Available from: <https://www.sciencedirect.com/science/article/pii/S0960148122008734>
37. Li W, Zheng M, Zhang Y, Cui G. Green governance structure, ownership characteristics, and corporate financing constraints. *J Clean Prod* [Internet]. 2020; Available from: <https://www.sciencedirect.com/science/article/pii/S0959652620310556>
38. Bhatnagar S, Sharma D. Evolution of green finance and its enablers: A bibliometric analysis. *Renewable and Sustainable Energy Reviews* [Internet]. 2022; Available from: <https://www.sciencedirect.com/science/article/pii/S1364032122003136>
39. Awawdeh AE, Ananzeh M, El-khateeb AI, ... Role of green financing and corporate social responsibility (CSR) in technological innovation and corporate environmental performance: a COVID-19 perspective. *China Finance Review ...* [Internet]. 2021; Available from: <https://www.emerald.com/insight/content/doi/10.1108/CFRI-03-2021-0048>
40. Setyowati AB. Governing sustainable finance: insights from Indonesia. *Climate Policy* [Internet]. 2023; Available from: <https://www.tandfonline.com/doi/abs/10.1080/14693062.2020.1858741>
41. Sarma P, Roy A. A Scientometric analysis of literature on Green Banking (1995-March 2019). *Journal of Sustainable Finance & Investment* [Internet]. 2021; Available from: <https://www.tandfonline.com/doi/abs/10.1080/20430795.2020.1711500>
42. Zhou XY, Caldecott B, Hoepner AGF, ... Bank green lending and credit risk: an empirical analysis of China's Green Credit Policy. *Business Strategy and ...* [Internet]. 2022; Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1002/bse.2973>
43. Bose S, Khan HZ, Monem RM. Does green banking performance pay off? Evidence from a unique regulatory setting in Bangladesh. *Corporate Governance: An ...* [Internet]. 2021; Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1111/corg.12349>
44. Ozili PK. Green finance research around the world: a review of literature. *International Journal of Green Economics* [Internet]. 2022; Available from: <https://www.inderscienceonline.com/doi/abs/10.1504/IJGE.2022.125554>
45. Lagoarde-Segot T. Sustainable finance. A critical realist perspective. *Res Int Bus Finance* [Internet]. 2019; Available from: <https://www.sciencedirect.com/science/article/pii/S0275531917306414>
46. Schumacher K, Chenet H, Volz U. Sustainable finance in Japan. *Journal of Sustainable Finance ...* [Internet]. 2020; Available from: <https://www.tandfonline.com/doi/abs/10.1080/20430795.2020.1735219>
47. Rehman A, Ullah I, Afridi FA, Ullah Z, ... Adoption of green banking practices and environmental performance in Pakistan: A demonstration of structural equation modelling. *Environment ...* [Internet]. 2021; Available from: <https://link.springer.com/article/10.1007/s10668-020-01206-x>
48. Barua S, Chiesa M. Sustainable financing practices through green bonds: What affects the funding size? *Bus Strategy Environ* [Internet]. 2019; Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1002/bse.2307>
49. Durrani A, Rosmin M, Volz U. The role of central banks in scaling up sustainable finance—what do monetary authorities in the Asia-Pacific region think? *Journal of sustainable finance & ...* [Internet]. 2020; Available from: <https://www.tandfonline.com/doi/abs/10.1080/20430795.2020.1715095>
50. Shi J, Yu C, Li Y, Wang T. Does green financial policy affect debt-financing cost of heavy-polluting enterprises? An empirical evidence based on Chinese pilot zones for green finance reform *Technol Forecast Soc Change* [Internet]. 2022; Available from: <https://www.sciencedirect.com/science/article/pii/S0040162522001901>
51. Debrah C, Chan APC, Darko A. Green finance gap in green buildings: A scoping review and future research needs. *Build Environ* [Internet]. 2022; Available from: <https://www.sciencedirect.com/science/article/pii/S0360132321008398>
52. Cunha F, Meira E, Orsato RJ. Sustainable finance and investment: Review and research agenda. *Business Strategy and the ...* [Internet]. 2021; Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1002/bse.2842>

53. Ahmed W, Ashraf MS, Khan SA, Kusi-Sarpong S, ... Analyzing the impact of environmental collaboration among supply chain stakeholders on a firm's sustainable performance. *Operations Management* ... [Internet]. 2020; Available from: <https://link.springer.com/article/10.1007/s12063-020-00152-1>
54. Jan A, Marimuthu M, Mohd MP bin, Isa M. The nexus of sustainability practices and financial performance: From the perspective of Islamic banking. *J Clean Prod* [Internet]. 2019; Available from: <https://www.sciencedirect.com/science/article/pii/S0959652619312958>
55. Julia T, Kassim S. Exploring green banking performance of Islamic banks vs conventional banks in Bangladesh based on Maqasid Shariah framework. *Journal of Islamic Marketing* [Internet]. 2020; Available from: <https://www.emerald.com/insight/content/doi/10.1108/JIMA-10-2017-0105/full/html>
56. Macchiavello E, Siri M. Sustainable finance and fintech: Can technology contribute to achieving environmental goals? A preliminary assessment of 'green fintech' and 'sustainable digital' *European Company and Financial Law* ... [Internet]. 2022; Available from: <https://www.degruyter.com/document/doi/10.1515/ecfr-2022-0005/html>
57. Wang KH, Zhao YX, Jiang CF, Li ZZ. Does green finance inspire sustainable development? Evidence from a global perspective. *Econ Anal Policy* [Internet]. 2022; Available from: <https://www.sciencedirect.com/science/article/pii/S0313592622000881>
58. Amidjaya PG, Widagdo AK. Sustainability reporting in Indonesian listed banks: Do corporate governance, ownership structure and digital banking matter? *Journal of Applied Accounting Research* [Internet]. 2020; Available from: <https://www.emerald.com/insight/content/doi/10.1108/JAAR-09-2018-0149/full/html>
59. Liang H, Renneboog L. Corporate social responsibility and sustainable finance: A review of the literature. ... *Corporate Governance Institute-Finance* ... [Internet]. 2020; Available from: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3699507
60. Lee JW. Green finance and sustainable development goals: The case of China. Lee, Jung Wan (2020) *Green Finance and Sustainable* ... [Internet]. 2020; Available from: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4035104
61. Sadiq M, Nonthapot S, Mohamad S, ... Does green finance matter for sustainable entrepreneurship and environmental corporate social responsibility during COVID-19? *China Finance Review* ... [Internet]. 2022; Available from: <https://www.emerald.com/insight/content/doi/10.1108/CFRI-02-2021-0038/full/html>
62. Cui H, Wang R, Wang H. An evolutionary analysis of green finance sustainability based on multi-agent game. *J Clean Prod* [Internet]. 2020; Available from: <https://www.sciencedirect.com/science/article/pii/S0959652620318461>
63. Zhang Y, Xing C, Wang Y. Does green innovation mitigate financing constraints? Evidence from China's private enterprises. *J Clean Prod* [Internet]. 2020; Available from: <https://www.sciencedirect.com/science/article/pii/S0959652620317455>
64. Sinha A, Mishra S, Sharif A, Yarovaya L. Does green financing help to improve environmental & social responsibility? Designing SDG framework through advanced quantile modelling. *Journal of Environmental* ... [Internet]. 2021; Available from: <https://www.sciencedirect.com/science/article/pii/S0301479721008136>
65. Hafner S, Jones A, Anger-Kraavi A, Pohl J. Closing the green finance gap—A systems perspective. *Environmental Innovation and* ... [Internet]. 2020; Available from: <https://www.sciencedirect.com/science/article/pii/S2210422419302849>
66. Gangi F, Meles A, D'Angelo E, ... Sustainable development and corporate governance in the financial system: are environmentally friendly banks less risky? *Corporate Social* ... [Internet]. 2019; Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1002/csr.1699>
67. Bătae OM, Dragomir VD, Feleagă L. The relationship between environmental, social, and financial performance in the banking sector: A European study. *J Clean Prod* [Internet]. 2021; Available from: <https://www.sciencedirect.com/science/article/pii/S0959652621000111>
68. Akomea-Frimpong I, Adeabah D, Ofosu D, ... A review of studies on green finance of banks, research gaps and future directions. ... *Sustainable Finance* ... [Internet]. 2022; Available from: <https://www.tandfonline.com/doi/abs/10.1080/20430795.2020.1870202>
69. Maltas A, Nykvist B. Understanding the role of green bonds in advancing sustainability. *Journal of sustainable finance & investment* [Internet]. 2020; Available from: <https://www.tandfonline.com/doi/abs/10.1080/20430795.2020.1724864>
70. Nizam E, Ng A, Dewandaru G, Nagayev R, ... The impact of social and environmental sustainability on financial performance: A global analysis of the banking sector. ... of *Multinational Financial* ... [Internet]. 2019; Available from: <https://www.sciencedirect.com/science/article/pii/S1042444X18300215>
71. Lei X, Yu J. Striving for sustainable development: Green financial policy, institutional investors, and corporate ESG performance. *Corporate Social Responsibility and* ... [Internet]. 2024; Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1002/csr.2630>