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THE EFFECTIVENESS OF GREEN BANKING IN SAUDI ARABIA

Razan Alamri

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ABSTRACT

Background: *Saudi Arabia is one of the countries in the world to launch ESG and Sustainable finance with the aim of not only contributing to global SDGs but also toward the achievement of the Kingdom's Vision 2030. The need for sustainable financial practices has appeared as green finance and funding renewable energy projects as well as implementing sustainable practices in operations and services. This paper analyses the concept of green banking, its importance, and advantages and disadvantages to achieve sustainability for the financial sector in Saudi Arabia.*

Razan Alamri
Commercial Law Master Student, Prince Sultan University, Riyadh, Saudi Arabia RazanAlj@outlook.sa
Author, solely responsible for research and writing. **Competing interests:** The author declares no conflict of interest. **Disclaimer:** The findings and conclusions reported in this publication are purely based on the authors' research. The authors accept no liability for any potential mistakes or inaccuracies that may exist. The material supplied is intended solely for academic purposes and should not be construed as professional advice or guidance.
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Methods: *The paper utilises legal frames and documents to conduct a legal analysis of green banking as a new concept in Saudi Arabia. The secondary data is also used to support the analysis, and the qualitative approach is employed to discuss the significance and features of green banking.*

Results and Conclusions: *Saudi Arabia continues to face substantial obstacles in adopting green banking. These difficulties include the absence of explicit regulations and recommendations from the regulatory bodies and the high cost of implementing green banking practices in a market that is primarily dependent on oil-based sectors. It is, therefore, important the regulatory bodies shed more focus on green banking and must enact a regulatory framework to encourage financial institutions to support projects that uphold sustainability.*

1 INTRODUCTION

Green banking has become increasingly important in Saudi Arabia and other countries worldwide due to global efforts to reduce greenhouse gas emissions and preserve the environment. Being a significant player in the global oil business, Saudi Arabia has made efforts to make banking more environmentally friendly[1]. It has acknowledged the significance of the transition to a low-carbon economy. These programs cover a wide variety of activities, including incorporating green finance and funding renewable energy projects, as well as implementing sustainable practices in operations and services, such as paperless banking and electronic statements.[2]

Notwithstanding attempts, Saudi Arabia continues to face substantial obstacles in adopting green banking. These difficulties include the absence of explicit regulations[3] and recommendations from the government, the low level of public awareness of environmental sustainability, and the high cost of implementing green banking practices in a market that is primarily dependent on oil-based sectors.

The Saudi Arabian Monetary Authority (SAMA) serves as the central bank of Saudi Arabia. This institution has been implementing some strategies to encourage financial institutions to adopt sustainable banking practices.[4] The move is expected to foster the promising green bond market in the KSA, giving investors transparency and reassurance around the environmental authorisations of investments. Green bond has become popular, and it is used as debt instrument given to financial institutions to help in supporting sustainable projects.[5]

Several financial institutions in Saudi Arabia have also focused on green initiatives. For example, Al Rajhi Bank has launched a sustainable finance framework with assistance from Standard Chartered Bank. The framework sets out Green Loan Principles to be followed in financing sustainable projects.[6] As the concept of green banking takes shape, it is expected that other banks will also adopt similar initiatives to promote sustainable finance and

1 Shah Md Ahsan Habib, *Green Recovery Approach of Islamic Banks in COVID-19 Regime* (Greentech Foundation 2020).

2 Ravi Meena, 'Green Banking: As Initiative for Sustainable Development' (2013) 3 (10) Global Journal of Management and Business Studies 1181.

3 Adeboye Oyegunle and Olaf Weber, *Development of Sustainability and Green Banking Regulations: Existing Codes and Practices* (Papers Series no 65, CIGI 2015).

4 Hamzeh F Assous, 'Saudi Green Banks and Stock Return Volatility: Gle Algorithm and Neural Network Models' (2022) 10 (10) Economies 242, doi: 10.3390/economies10100242.

5 Echo Kaixi Wang, 'Financing Green: Reforming Green Bond Regulation in the United States' (2017) 12 (2) Brooklyn Journal of Corporate, Financial & Commercial Law 467; Nathan Bishop, 'Green Bond Governance and the Paris Agreement' (2019) 27 (3) NYU Environmental Law Journal 377.

6 'Al-Rajhi Bank concludes landmark $1bn sustainable Shariah-compliant financing facility' (*Arab News*, 20 September 2022) <https://www.arabnews.com/node/2166276/corporate-news> accessed 25 April 2023.

reduce the environmental impact of their operations. This may include investing in green technologies, offering eco-friendly products and services, and supporting sustainable projects in the community. Eventually, green banking can benefit both the environment and the bank's bottom line by attracting socially responsible customers, reducing operational costs, and mitigating environmental risks.

This paper discusses the concept and definition of green banking. Precisely, it will discuss how banks incorporate environmental and social factors into their operations. In addition, the concept of eco-friendly banking and the importance of green banking in promoting sustainable development will be discussed. Furthermore, it will highlight the advantages and disadvantages of this approach. Lastly, this paper will draw a conclusion based on the main points discussed.

1.1 The concept and definition of green banking

Green banking is a banking concept that promotes environmentally friendly and sustainable operations and investments.[7] It is a term that acknowledges banks' responsibility in supporting environmental sustainability via the incorporation of environmental, social, and governance (ESG) aspects into their operations, goods, and services.[8] Green banking has gained popularity in recent years as people become more concerned about climate change, pollution, and other environmental challenges.

Green banking has its roots in the broader concept of sustainable finance, which seeks to promote sustainable economic growth and development while also taking into account environmental and social factors. The concept of sustainable finance began in the 1980s as a response to growing concerns about environmental degradation and the social impacts of economic development. The idea of green banking was pioneered by Triodos Bank, a financial institution founded in 1980 in the Netherlands, which focused on environmental sustainability from the outset.[9] They recognised the importance of upholding sustainable practices in the banking industry and developed a unique model that incorporated social and environmental responsibility into their financial operations. In the United States, Reed Hundt and Ken Berlin developed the concept of green banks during the 2008 Obama-Biden Transition Team as a means to promote the development of clean energy.[10] Over time, sustainable finance has evolved into a more specialised field that includes green banking as a key component.

Green banking dates back to the early 2000s, when a few forerunner banks saw the need to include environmental considerations in their operations. For example, HSBC was the first big bank to declare its commitment to carbon neutrality in 2005. Several other institutions have since followed suit, and green banking is becoming an increasingly common way to banking globally.

Green banking is founded on the understanding that banks play a vital role in fostering long-term economic growth and development. Banks may contribute to encouraging sustainable

7 Taslima Julia and Salina Kassim, 'Green Banking' in R Haron, M Md Husin and M Murg (eds), *Banking and Finance* (IntechOpen 2020) ch 6, doi: 10.5772/intechopen.93294.

8 T Gavrilko and L Pobochenko, *Green Banking as a Tool for Implementing the Model of a Socially Responsible Banking Institution* (Baltija Publishing 2021).

9 Suborna Barua, *Principles of Green Banking* (De Gruyter 2020) 39, doi: 10.1515/9783110664317.

10 Mir Mahmudul Haque Chowdhury, 'Sustainable Environment: Necessities of Green Banking' (*Daily Sun*, 18 August, 2018) <https://www.daily-sun.com/printversion/details/330334/Sustainable-Environment:-Necessities-of-Green-Banking> accessed 25 April 2023.

investment and mitigate the negative environmental and social repercussions of economic activity by incorporating ESG elements into their operations, products, and services. Green banking methods have recently been implemented in order to match the concept of socially responsible investing (SRI).[11] SRI seeks to make a monetary profit while simultaneously providing social and environmental advantages in order to promote constructive societal change.[12] SRI dates back to the 1950s when investors began to look out for investments in businesses that did not align with their religious beliefs. Over time, SRI has evolved into a distinct investment strategy that takes into consideration environmental, social, and governance factors when making investment decisions. SRI uses both negative screening techniques, which are based on values, and positive screening techniques, which consider risk and return, to maximise financial returns.[13] Ultimately, SRI embraces the concept of the 'Triple Bottom Line', which incorporates ecological, social, and economic criteria.

The aspects of green banking are numerous. The assistance that green banking provides to sustainable initiatives is one of its best qualities. This entails urging clients to concentrate on green initiatives, including sustainable food production, renewable energy, and energy efficiency. Banking institutions can contribute their own cash to these initiatives as well, encouraging long-term economic expansion.

The implementation of environmentally friendly methods inside the bank's own operations is another crucial component of green banking. This might involve lowering energy use and waste, supporting ecologically friendly transportation, and employing eco-friendly goods and materials. Banks may lessen their own environmental impact and encourage sustainable business practices by implementing these strategies. An essential step in encouraging sustainable economic growth and development is the idea of 'green banking.' Banks may support sustainable investment and lessen the unfavourable environmental and social effects of economic activity by incorporating ESG elements into their operations, products, and services. The significance of green banking is projected to increase as long as the globe faces mounting environmental problems.[14]

1.2 The concept of an eco-friendly bank

An eco-friendly bank is a financial organisation that stresses environmental responsibility and sustainability in its operations and policies.[15] This may take many forms, including investments in renewable energy and clean technologies, funding environmentally friendly initiatives, and lowering the bank's carbon footprint through energy-efficient facilities and transportation. Eco-friendly banks also place a premium on openness and accountability, informing clients about where their money is being invested and the beneficial environmental impact of their financial decisions. Individuals and corporations may help to mitigate climate change and promote a more sustainable future by supporting eco-friendly banking.

11 Broto Rauth Bhardwaj and Aarushi Malhotra, 'Green Banking Strategies: Sustainability through Corporate Entrepreneurship' (2013) 3 (4) Greener Journal of Business and Management Studies 180, doi: 10.15580/GJBMS.2013.4.122412343.

12 Ali Saleh Alshebami, 'Evaluating the Relevance of Green Banking Practices on Saudi Banks' Green Image: The Mediating Effect of Employees' Green Behaviour' (2021) 22 (4) Journal of Banking Regulation 275, doi: 10.1057/s41261-021-00150-8.

13 Barua (n 11) 39.

14 Fatema Khairunnessa, Diego A Vazquez-Brust and Natalia Yakovleva, 'A Review of the Recent Developments of Green Banking in Bangladesh' (2021) 13 (4) Sustainability 1904, doi: 10.3390/su13041904.

15 Kern Alexander, *Greening Banking Policy: In support of the G20 Green Finance Study Group* (GFSG 2016).

Amalgamated Bank, Green Century Capital Management, and Triodos Bank are some examples of environmentally responsible banks.[16]

Eco-friendly banks acknowledge that their lending and investment decisions might have a detrimental impact on the environment and take steps to prevent funding for damaging initiatives. Some eco-banks not only refuse to finance projects that degrade the environment but also actively sponsor renewable energy or climate-positive projects.[17] There is no standard benchmark for eco-friendly banking since banks do not consistently report the environmental consequences of their loans or reveal fossil fuel funding. Yet, there are initiatives and organisations dedicated to promoting sustainable banking solutions.

The growing concern about climate change and environmental damage has given rise to an increased interest in the idea of eco-friendly banking. Today, customers are searching for methods to match their beliefs with their banking selections as they become more conscious of the effects their spending choices have on the environment. It has been shown that some banking decisions may have a negative effect on the environment. Customers have the chance to consider their decisions and opt for banks that are environmentally friendly. Promoting sustainable investing is one of the key ways eco-friendly banks do business. These banks provide investments in businesses that adhere to high environmental, social, and governance (ESG) criteria.[18] This indicates that the businesses being backed are dedicated to minimising their negative effects on the environment, treating their workers fairly, and practicing open and honest commerce. Through investments in these types of firms, financial institutions that operate under a sustainable business model encourage other institutions to operate under the same framework.

Eco-friendly banks offer products that encourage environmental sustainability in addition to investing in sustainable businesses.[19] There are a number of financial institutions that provide green loans to fund initiatives that minimises energy usage, for instance, solar panel installations or energy-efficient home improvements. It is also worth noting that some financial institutions offer green mortgages, which give discounts or other incentives to homeowners that satisfy specific environmental requirements. In addition, eco-friendly financial institutions prioritise their own operations to minimise their environmental impact. This can include using renewable energy sources, implementing recycling programs, reducing paper usage, and promoting remote work to reduce carbon emissions from transportation. The main aim of eco-friendly banks is to support well-being through projects that are environmentally friendly. It has emerged in the recent past that many eco-friendly banks prioritise partnerships with organisations that align with their values, such as environmental non-profits or social justice groups.

It has been shown that banking with an environmentally friendly bank can also provide societal advantages. Eco-friendly banks have a direct positive impact on society in many ways. These banks contribute to a more sustainable and fair economy by encouraging sustainable investing and ecologically responsible operations. They are also leading by example for other financial institutions, urging them to follow suit and driving systemic reform. Eco-friendly banks reflect a developing trend in the financial industry that

16 Francisco Climent, 'Ethical Versus Conventional Banking: A Case Study' (2018) 10 (7) Sustainability 2152, doi: 10.3390/su10072152.

17 'Sustainable Banks in the US: What they are and a list of eco-friendly options: Mighty Deposits Guide' (*Mighty Deposits*, 22 February 2023) <https://mightydeposits.com/posts/environmentally-friendly-banks> accessed 25 April 2023.

18 Gavrilko and Pobochenko (n 10).

19 Nigamananda Biswas, 'Sustainable Green Banking Approach: The Need of the Hour' (2011) 1 (1) Business Spectrum 32.

promotes sustainability and ethical standards.[20] By offering clients options to participate in and support sustainable business practices, eco-friendly banks are creating positive change and inspiring others to follow suit.

Eco-friendly banks are a good trend in the financial industry that stresses sustainability and ethical principles. These banks provide products and services that encourage sustainable investment and help in the establishment of a cleaner environment. Individuals may contribute to a more sustainable and fair economy by aligning their financial decisions with their principles by banking with an eco-friendly financial institution. It is worth noting that if climate change and environmental degradation remain important global challenges, the significance of these banks will only expand.

1.3 The importance of green banking

The necessity to transition to a more sustainable economic model has spurred the growth of green banking. In many countries, the current economic model is not environmentally friendly because it is mainly fuelled by fossil fuels and unsustainable initiatives. To begin with, green banking has been at the centre stage in encouraging and supporting investments that protect the environment. According to Tara et al. (2015), green banking plays a significant role in minimising greenhouse gas emissions and encouraging renewable energy investments.[21] Banks can offer loans, grants, and other types of financing to facilitate ecologically friendly projects, for example, renewable energy, energy efficiency, and sustainable crop production. From these findings, financial institutions contribute directly towards the reduction of carbon footprint and foster a low-carbon economy.

Green banking could play a role in mitigating environmental concerns as well as encouraging responsible financial operations. It has been demonstrated that the banking industry is more prone to a variety of environmental hazards, including climate change-related risks, natural catastrophes, and water scarcity. These environmental hazards can have a huge impact on practices and financial performance in financial institutions. The financial institutions have the option to decrease their exposure to these risks and support responsible banking practices by implementing sustainable operations and investing in environmentally friendly projects. Doing so can help financial institutions establish a great reputation in the market with consumers and investors, thus building trust and loyalty. This will also help in fighting the fierce competition that is currently being experienced in the banking industry. In a study by Ibe-enwo et al. (2019), green banking practices can significantly improve client loyalty, which can result in better profitability and competitive advantage.[22]

By supporting charitable organisations and tackling social problems, green banking may aid in the advancement of social sustainability. Social sustainability involves the implementation of projects and programs that protect the well-being of the organisation.[23] By lending money to and giving grants to initiatives that deal with social problems like eradicating

20 Abin P Jose, 'A Study on Issues and Challenges of Green Banking Services in Kerala' (The COVID-19: Business Trends, Challenges and Opportunities: Virtual National Conference, Kristu Jayanti College, Bengaluru, 23 October 2020) 134.

21 Kanak Tara, Saumya Singh and Ritesh Kumar, 'Green Banking for Environmental Management: A Paradigm Shift' (2015) 10 (3) Current World Environment 1029, doi: 10.12944/CWE.10.3.36.

22 Grace Ibe-enwo et al, 'Assessing the Relevance of Green Banking Practice on Bank Loyalty: The Mediating Effect of Green Image and Bank Trust' (2019) 11 (17) Sustainability 4651, doi: 10.3390/su11174651.

23 Han Lin et al, 'An Indicator System for Evaluating Megaproject Social Responsibility' (2017) 35 (7) International Journal of Project Management 1415, doi: 10.1016/j.ijproman.2017.04.009.

poverty, advancing education, and enhancing healthcare, financial institutions may assist social sustainability. This will improve the well-being of society and bring social inclusion. A study by Aubhi (2016) noted that through funding projects that deal with social issues, green banking might significantly contribute to the promotion of social sustainability.[24] Also, through supporting sustainable investments and practices, green banking may help accomplish Sustainable Development Goals (SDGs).[25] The SDGs are a list of objectives the UN adopted to encourage sustainable development on a global scale. By funding initiatives that address issues like poverty, hunger, health, education, clean water and sanitation, and other social problems, green banking can help to achieve these goals. According to a study by Sachs et al. (2019), the strategies used by green financial institutions can contribute to the achievement of SDGs through the promotion of sustainable investments and projects.[26]

Another benefit of green banking is that it can draw in new investors and consumers who are concerned about the environment and society. Consumers and investors have an increasing need for sustainable financial goods and services, according to a study by Dalia and Vitaly (2021).[27] Financial institutions may draw in these clients and investors as well as develop a devoted clientele by implementing green banking practices. As a result, the bank may experience more profitability and a competitive edge. Also, while making investment decisions, investors are increasingly taking environmental, social, and governance (ESG) considerations into account. Financial institutions may leverage a burgeoning market for sustainable financing and draw in ESG-conscious investors by showcasing a commitment to these concerns.

In conclusion, green banking is crucial for advancing sustainability in the social, economic, and environmental spheres. It is important to improve the sustainability of society through better financial practices. By implementing sustainable practices and funding initiatives that uphold social and environmental responsibility, banks may contribute hugely to the promotion of sustainable development. Several studies have provided data that emphasises the value of green banking in fostering sustainable growth and fulfilling the SDGs. Thus, promoting green banking practices and developing a sustainable economy require cooperation between politicians, regulators, and financial institutions.

1.4 The main features of green banking

Green banking is becoming increasingly popular due to its focus on promoting sustainability and environmentally responsible lifestyles. One of the most appealing aspects of green banking is its range of green products and services, which are designed to help customers lead a more eco-friendly life.[28] These include green car loans, green mortgages, energy savings accounts, and socially responsible investment accounts. For instance, green car loans are specifically intended to finance the purchase of environmentally friendly vehicles such as electric cars or hybrids. On the other hand, green mortgages provide financial assistance to

24 Rezwan Ul Haque Aubhi, 'The Evaluation of Green Banking Practices in Bangladesh' (2016) 7 (7) Research Journal of Finance and Accounting 93.

25 Julia and Kassim (n 9).

26 Jeffrey D Sachs et al, 'Importance of Green Finance for Achieving Sustainable Development Goals and Energy Security' in JD Sachs et al (eds), *Handbook of Green Finance* (Springer 2019) 3. doi: 10.1007/978-981-13-0227-5_13.

27 Dalia Streimikiene and Vitaliy Kaftan, 'Green Finance and the Economic Threats During COVID-19 Pandemic' (2021) 19 (2) Terra Economicus 105, doi: 10.18522/2073-6606-2021-19-2-105-113.

28 Abdulrahman Abdullah Alsughayir, 'Does Green Product Innovation Affect Performance of Saudi Chemical Industrial Firms?' (2017) 11 (2) Journal of Social Science Research 2355, doi: 10.24297/jssr.v11i2.6057.

customers who are looking to buy or renovate energy-efficient and environmentally friendly homes. Typically, these products come with lower interest rates and more favourable terms than traditional loans and mortgages, as customers who opt for these products are deemed less risky, considering their commitment to environmental sustainability.

In contrast to other financial institutions, green banks are highly committed to supporting sustainable and environmentally conscious practices. They put great emphasis on minimising negative environmental impacts and cultivating a culture of sustainability. To ensure that their investment and funding decisions align with their environmental guidelines, green banks have implemented Environmental Due Diligence (EDD) – a strategy used to evaluate a company's environmental impacts before deciding to provide funding.[29] Overall, green banking is a promising approach towards achieving a more eco-friendly future, and it is commendable to see that the financial industry is taking steps to promote sustainability.

Supporting sustainable practices is an important feature of green financial institutions. In order to lessen their impact on the environment, green banks also support sustainable practices within their own practices. These activities include using recycled materials, cutting carbon emissions, and encouraging paperless transactions that involve the use of electronic platforms. Green banks also employ renewable energy sources like solar, wind, and hydropower to lessen their influence on the environment and their energy expenses. In order to lower energy usage in their premises, green banks are also putting into place energy-saving measures, including deploying more effective cooling and heating systems and installing LED lighting. Green banks support environmental sustainability and the battle against climate change by lowering their energy footprint.[30]

Another important feature of green banking is automation and online banking. Green banks are adopting the latest technologies to make banking easier for their customers while reducing their environmental footprint. Customers can bank online, view their balances, pay bills and make transfers without having to go to the bank in person. This reduces the costs and environmental impact of car travel, reducing greenhouse gas emissions and conserving natural resources.

Responsible investing is a feature that all green banks are associated with. Green banks can help clients invest responsibly by offering them ethical and sustainable investment funds.[31] These funds are made up of stocks and bonds from companies that have sustainable environmental, social responsibility, and governance (ESG) practices. Clients can thus contribute to the transition to a more sustainable economy while obtaining a financial return.

Green banks can offer green microcredits to help customers finance sustainable projects. These microcredits can be used to install solar panels, improve the energy efficiency of buildings or buy electric vehicles. Customers can thus carry out projects that contribute to the protection of the environment while benefiting from financial support. In addition, green banks can offer green credit cards that offer benefits to customers who adopt green behaviours. For example, a green credit card can offer discounts on purchases of environmentally friendly products or cash back for purchases made from eco-friendly merchants.[32]

29 Raad Mozib Lalon, 'Green Banking: Going Green' (2015) 3 (1) International Journal of Economics, Finance and Management Sciences 34, doi: 10.11648/j.ijefm.20150301.15.

30 Hyoungkun Park and Jong Dae Kim, 'Transition Towards Green Banking: Role of Financial regulators and financial institutions' (2020) 5 (1) Asian Journal of Sustainability and Social Responsibility 1, doi: 10.1186/s41180-020-00034-3.

31 Biswas (n 21).

32 Huidong Sun et al, 'CSR, Co-Creation and Green Consumer Loyalty: Are Green Banking Initiatives Important? A Moderated Mediation Approach from an Emerging Economy' (2020) 12 (24) Sustainability 10688, doi: 10.3390/su122410688.

Green banks are associated with offering carbon offset programs to help customers reduce their carbon footprint. Customers can offset their greenhouse gas emissions by financing emission reduction projects, such as planting trees, developing renewable energy sources, or improving the energy efficiency of buildings. Supporting sustainable businesses is another feature of green banks. They offer loans at preferential rates or by investing in green projects. Banks can thus encourage companies to adopt sustainable practices in terms of the environment and social responsibility.

1.5 Advantages and disadvantages of green banking

1.5.1 Advantages of green banking

Supports Sustainability – By funding ecologically friendly enterprises, green banking encourages sustainable development. Banks may aid in lowering the carbon footprint of companies, promoting renewable energy, and protecting natural resources through funding green initiatives. Green banking is another strategy for encouraging consumers and the general public to act sustainably.

Attracts Millennial Customers – Green banking practices can draw in millennial clients who are more concerned with the environment and social responsibility. Younger generations are becoming more and more interested in doing business with banks that promote sustainability and share their values. Banks may draw in this crucial client segment by implementing green banking practices.

Fosters Partnerships – Partnerships between financial institutions, governments, and other stakeholders may be facilitated through green banking. When various stakeholders come together, a greater output is achieved. To assist the implementation of green policies and finance initiatives for sustainable development, banks might work with governments and environmental organisations.[33] These collaborations have the potential to increase the effect of green banking practices and build a more sustainable future.

Enhances Reputation – Green banking may improve banks' standing as socially conscious businesses. Consumers and investors are getting more and more interested in working with banks that have a solid history of supporting environmental projects.[34] Banks may boost their reputation and draw in new clients by adopting green banking practices.

Mitigates Risks – Climate change and environmental risks may be reduced with the use of green finance.[35] Banks can lessen their exposure to lending to and investing in businesses that produce a lot of greenhouse emissions or engage in other ecologically harmful practices. Banks can lower the default and loss risks related to these businesses by refraining from making such investments.

Generates Revenue – By establishing new markets and products, green banking may help in generating revenue that can be further used for green projects. It is worth noting that banks can create new goods and services to meet the rising demand for green products and services. In the recent past, the world has shifted to sustainability, and this includes sustainable banking. Banks might, for instance, provide green credit cards, green loans, and

33 Julia and Kassim (n 9).

34 Aftab Alam, Mohammad Almotairi and Kamisan Gaadar, 'Green Marketing in Saudi Arabia Rising Challenges and Opportunities, for Better Future' (2012) 8 (11) Journal of American Science 144.

35 Park and Kim (n 32).

green mortgages to reward clients for practicing environmental responsibility. For example, reward credit and debit cards offered by The Sierra Club and Defenders of Wildlife to customers who contribute towards environmental protection.[36]

Promotes Innovation – By supporting the creation of new technologies and methods that assist sustainable development, green banking encourages innovation. Today, innovation is a thing that every institution strives to achieve. It has been noted that innovation is possible where there is financial and human capital.[37] Banks may help the development of innovative technologies that lessen the industry's environmental effects and encourage sustainable practices by investing in research and development. Continuous innovation in every sector would lead to environmental sustainability.

1.5.2 Disadvantages of green banking

Higher Costs – There is a significant difference in terms of costs between conventional and green banks. Comparing green banking to conventional banking, costs may be greater.[38] To implement green banking practices, banks might need to make investments in new technologies, train staff in new procedures, and hire specialist experts. Customers may be charged more fees or pay higher interest rates as a result of these charges.

Limited Scope – Green banking has a limited scope and impact on the overall banking industry. Green banking practices are often adopted by a small number of banks that are committed to sustainability. This limits the impact of green banking practices on the overall banking industry.

Lack of Standards – It has been shown that a consistent approach to sustainability is lacking in green banking. It can be challenging to compare bank practices since various banks may have different ideas of what constitutes sustainable development. Customers find it difficult to compare the environmental effect of various banks due to the absence of guidelines.

Potential for Greenwashing – Greenwashing is a risk associated with green banking, in which financial institutions overstate or make misleading claims about their environmental operations in an effort to boost their public perception.[39] It is possible to deceive customers into believing that their bank is more environmentally conscious than it actually is.

Risk Management Challenges – Banks may face difficulties managing risk as a result of green banking. Funding green initiatives can be hazardous since the methods and technology employed could be cutting-edge and unproven. If the projects they sponsor receive bad press or if their green investments do not provide the desired outcomes, banks may also suffer reputational concerns.

Lack of Expertise – It has been reported that specialised knowledge and experience are needed for green banking, which may not be easily accessible inside banks. Banks may need to spend money on staff training and recruiting who have experience in renewable energy, sustainability, and other relevant disciplines. Banks may find it challenging to efficiently integrate green banking practices due to a lack of such knowledge.

36 Meena (n 3).

37 Alsughayir (n 30).

38 Biswas (n 21).

39 Sofia von Cotzhausen Modin and Vanessa Linde, 'Green Banking: A Qualitative Study on how Nordea Bank Avoids Greenwashing' (Master's thesis, Uppsala University 2023).

Competitive Disadvantage – According to Miah et al. (2021), green financial institutions might put conventional banks at a competitive disadvantage.[40] This is because conventional banks, in most cases, do not place a high priority on sustainability. It is important to note that financial institutions that place a strong priority on sustainability may face competitive disadvantages if adopting green banking practices results in greater costs or worse profits. As a result, this may prevent banks that place a higher priority on profitability than sustainability from adopting green banking practices.

2 POLICY AND REGULATORY FRAMEWORK OF GREEN BANKING

Financial institutions may choose to participate in green projects voluntarily or as a condition of compliance. The duty of central banks in tackling ecological threats and promoting the growth of green banking has come under scrutiny over the past few years due to growing public awareness of the dangers presented by climate change and the political will to solve the issues. However, central banks might not be the only ones responsible for overseeing and regulating banks; banks also have an autonomous obligation to green their operations. The involvement of central banks in relation to green banking differs to an extent as a result of variations in mandates, fundamental goals, and levels of inter-agency collaboration. Due to these variations, various regulatory and policy frameworks exist in a number of countries and are currently being developed in several more.[41] The Sustainable Banking Network (SBN) and the Central Banks and Supervisors Network for Greening Financial System (NGFS) were both born out of this insight.

Incorporating social responsibility and environmental sustainability into banking operations is known as 'green banking'. A policy and regulatory framework are required to guarantee that banks support environmentally friendly activities. There are broad standards that may be followed, although this framework may differ based on the nation or location. Governments have the authority to enact rules and regulations requiring banks to support sustainable business practices. Green investments, green bonds, and incentives for the use of renewable energy sources can all fall under this category. The central bank can create regulations that support green finance objectives and sustainability risk management in the banking sector. Through awareness campaigns, training in green finance, and voluntary rules of behaviour, banking sector groups may also advance green banking.

Financial institutions can interact with their customer base to learn about their desires and worries regarding environmental and social concerns. The establishment of sustainable practices and policies can benefit from this involvement. In order to promote energy-efficient purchases, environmentally friendly transportation, and renewable energy projects, banks can also provide green banking products, including green loans and green mortgages. Finally, sustainability reports, which offer transparency about a company's environmentally friendly procedures, environmental effects, and social responsibility, may be used by banking institutions to report on their ESG performance.

40 Mohammad Dulal Miah, Syed Mahbubur Rahman and Mahreen Mamoon, 'Green Banking: The Case of Commercial Banking Sector in Oman' (2021) 23 (2) Environment, Development and Sustainability 2681, doi: 10.1007/s10668-020-00695-0.

41 Barua (n 11) 65.

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2.1 Green Banking Guide

The Green Banking Guide (GBG) includes a collection of rules and concepts intended to support ethical banking procedures. The GBG outlines procedures or guidelines and practices that financial institutions may use to lessen their carbon footprint, manage environmental risks, and aid in the shift to a low-carbon economy. Green banking aims to persuade banks to match their business operations with economic growth, social responsibility, and environmental sustainability.

Financial regulators, political entities, non-governmental organisations (NGOs), and trade groups are among the stakeholders accountable for the development of the GBG. The regulatory environment supporting green banking practices is shaped in large part by financial regulators. They establish criteria and rules that banks must adhere to in order to guarantee that their operations are socially and ecologically responsible. Governmental organisations offer incentives and assistance to entice banks to use sustainable practices. NGOs and trade groups support sustainable banking practices by offering resources and data to assist banks in putting them into effect. In the end, it is up to banks to embrace and put into practice green banking methods that are consistent with their beliefs and corporate goals.

The GBG addresses environmental and social risks in lending, providing funding for environmentally friendly initiatives, and lowering banks' carbon footprints. The goal of the GBG is to make financial institutions and development finance institutions (DFIs) less vulnerable to environmental risk, to uphold their environmental protection obligations, and to offer to finance for the transformation of the economy into one that is resource- and climate-efficient.[42] As organisers of economic activity, banks and DFIs are directly exposed to environmental concerns due to the decisions of their customers. While it is ultimately the borrower's obligation to ensure compliance with regulations pertaining to the environment, banks are urged to put in place the proper systems to recognise, evaluate, and reduce environmental risks in order to avoid unjustified financial losses.

The GBG is the initial in a series of activities destined to create a banking industry with a sustainable economic environment. Every upcoming step will complement the GBG by progressively adding elements like social issues or green lending stages, giving banks the time to make necessary adjustments prior to the GBG becoming legislation. In Pakistan, GBG has been developed, and it has helped in creating a sustainable environment by banks. The 2013 recommendations from the Securities and Exchange Commission of Pakistan (SECP), such as the Code of Corporate Governance and the Corporate Social Responsibility (CSR) Voluntary recommendations, operate concurrently with the GBG. The second set of recommendations is aimed at all firms and, in contrast to the GBG, is a larger notion that encompasses social and economic responsibility (climate change).

Two sets of voluntary guidelines were recently created for the green bond market to foster openness and standardisation: the Green Bond Principles (the 'GBPs') provided by the ICMA;[43] and the Climate Bonds Standard issued by the Climate Bond Initiative (the 'CBI'),[44] which is an NGO. The Climate Bonds Standards, which expand on the GBPs to give a more comprehensive set of conditions to be implemented by a green bond issuer, are in keeping with these recommendations. This means the two sets of criteria strongly

42 State Bank of Pakistan, Green Banking Guidelines: IH&SMEFD Circular No 08 of 9 October 2017 (Infrastructure, Housing & SME Finance Department 2017).

43 International Capital Market Association, Green Bond Principles: Voluntary Process Guidelines for Issuing Green Bonds (ICMA June 2018).

44 Climate Bonds Initiative, Climate Bonds Standard, Version 3.0: International best practice for labelling green investments (CBI December 2019)

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emphasise openness and issuer disclosure with regard to the initiatives which may be funded with revenues from bond issues.[45]

One of several recommendations designed to encourage sustainable business operations is the GBG. While the GBG concentrates mainly on the banking industry and environmental sustainability, other standards, for instance, the Code of Corporate Governance and Corporate Social Responsibility (CSR) Voluntary Guidelines released by the Securities and Exchange Commission of Pakistan (SECP) in 201,3 focus on a broader spectrum of concerns, for example as social and economic obligations, climate change, and sustainable growth.[46] The Code of Corporate Governance offers an architecture for corporate governance procedures that support transparent, accountable, and moral behaviour. It lays down guidelines and recommended procedures for board duties, rights of shareholders, board composition, and accountability and openness. The Corporate Social Responsibility Voluntary Guidelines, In the meantime, offer recommendations on how firms should contribute to social accountability and sustainable growth, comprising promoting community growth, environmental preservation, rights for workers, and the safeguarding of human rights.

2.2 The role of regulators in promoting green banking

Climate change is anticipated to increase and is no longer regarded just as a danger to the natural world because it impacts every sector of the economy. In addition, threats that come up as a result of climate change pose physical and transitional issues to the financial system. To counteract the undesired effects, central banks, regulators, and policymakers have started to implement numerous green banking programs; however, the strategy used thus far differs slightly across industrialised and developing nations.[47]

Climate change financial losses have grown more visible and important to the banking industry, and an increasing number of central banks and banking regulators have begun to take them seriously.[48] Affiliates of the Networking for Greening the Financial System (NGFS) also accept that risks associated with climate change have grown into financial concerns and that managing risks associated with climate change is, therefore, the responsibility of central banks and regulators.[49] Before the introduction of the NGFS, the Task Force on Climate-related Financial Disclosure (TCFD) and the G20 Sustainable Finance Study Group, previously referred to as the G20 Green Finance Study Group, were formed to achieve the same goals.[50]

The public sector, specifically central banks as well as financial regulators, have to take an instrumental part in integrating green banking and ensuring that threats related to climate change are appropriately determined, examined, and reported, even though systems of the same types and efforts led by industries are important drivers of creativity and risk mitigation. Many central banks, nevertheless, are still hesitant to loosen the capital thresholds for green financing in the absence of conclusive proof that green finance actually entails reduced risks.

45 Edana Richardson, 'Standardising Responsible Islamic Finance: A Review of Green, Social and Sustainability Sukuk' (2020) 8 (8) Kilaw Journal 189.

46 'Green Banking Guidelines' (*Green Finance Platform*, 2017) <https://www.greenfinanceplatform.org/policies-and-regulations/green-banking-guidelines> accessed 25 April 2023.

47 Park and Kim (n 32).

48 Pierre Monnin, *Central Banks and the Transition to a Low-Carbon Economy: Discussion Note 2018/1* (Council on Economic Policies 2018) doi: 10.2139/ssrn.3350913.

49 Network for Greening the Financial System, *First Progress report* (NGFS October 2018).

50 Park and Kim (n 32).

The responsibility of central banks and banking regulators in addressing climate change and environmental issues is currently the subject of intense discussion.[51]

Policymakers have a role to play in promoting green banking. Policy actors can significantly contribute to the expansion of sustainable banking. First, policy actors may encourage the use of sustainable financing by, for example, increasing the supply aspect of such money by providing incentives for investment. Second, policymakers should encourage the creation of investment tools and fund designs that are especially appropriate for sustainable financing. Third, regulatory agendas for standardising ESG performance measurements can be established by policy actors. In addition to these three goals, policy actors may help grow the pipeline of investable initiatives and transactions by fostering information exchange and capacity building. This will help increase the demand for investable ESG initiatives. Governments may additionally make investments directly in sustainable financing approaches by using their own commissioning money.[52] Lastly, policy actors may make investments in intermediary funds in addition to funding solid research to support the growth of the sustainable finance market, helping to construct the necessary facilities for sustainable markets more broadly.

It is worth noting that a number of central banks in developing nations today, for instance, the People's Bank of China, Bangladesh Bank, and Banco Central do Brazil, are taking steps to implement green financial practices and expressly include sustainability into their mandates.[53] Additionally, the Financial Services Authority (OJK), Indonesia's financial market regulator, has established preserving the equilibrium of the financial system as a component of its corporate goals. As a result, in 2014, it released a plan of action for sustainable banking, and in 2017, it published regulations on the subject.[54] Even so, for individuals living in wealthy nations, such responsibility for environmental sustainability is somewhat vague.

Green banking has a long way to go before it becomes widely accepted in the financial industry. To increase its reputation in the public, both bottom-up and top-down engagement have been concurrently initiated. Policy actors and regulators have become conscious of how important it is to embrace green finance policies so as to transform the banking industry and hugely help countries to attain their environmental objectives and goals. Since they have the capacity to change and control the dynamics and environment of the banking industry, central banks and banking policy actors play an important role.

2.3 The rise of sustainable finance regulations

The past few years have seen a rise in interest in sustainable banking legislation as societal and environmental concerns have grown. Banks are required by these rules to take long-term sustainability risks and opportunities into account when making investment choices.

51 Ulrich Volz, *On the Role of Central Banks in Enhancing Green Finance* (INQUIRY working paper 17/01, UN Environment Inquiry, CIGI February 2017).

52 Alex Nicholls, *Policies, Initiatives, and Regulations Related to Sustainable Finance* (Asian Development Bank 2021). This background paper was prepared for the report Asian Development Outlook 2021: Financing a Green and Inclusive Recovery.

53 Simon Dikau and Josh Ryan-Collins, *Green Central Banking in Emerging Market and Developing Country Economies* (New Economics Foundation 2017).

54 Otoritas Jasa Keuangan, *Roadmap for Sustainable Finance in Indonesia 2015–2019* (OJK December 2014); Regulation of Financial Services Authority No 51/POJK.03/2017 'On Application of Sustainable Finance to Financial Services Institution, Issuer and Publicized Listed Companies' <https://www.ifc.org/wps/wcm/connect/bab66a7c-9dc2-412f-81f6-f83f94d79660/Indonesia+OJK+Sustainable+Finance+Regulation_English.pdf?MOD=AJPERES&CVID=lVXU.Oy> accessed 25 April 2023.

They also attempt to motivate businesses to conduct their operations more sustainably. The Paris Climate Change Agreement, the Sustainable Development Goals of the United Nations, and increasing understanding of the effects of human activities on the environment have all contributed to the rise in sustainable finance regulations. Globally, sustainable banking policies are being introduced, with the EU, Canada, and Japan among those setting the bar. Financial firms who disregard these restrictions risk penalties and harm to their image. Nevertheless, these laws are projected to expand in the upcoming years since they are thought to be crucial for establishing a future that is more environmentally friendly.

Sustainable finance-related policy goals may be viewed within a broader, historical framework of policy innovation and development. Globally, there has been a trend moving away from interventionist, Keynesian forms of policymaking during the 1980s and toward a number of breakthroughs in policymaking founded on the idea of New Public Management[55] and, subsequently, New Public Governance.[56] The restructuring of public expenditure frameworks on new privatisation and partnership between the public and private sectors paradigms is a key component of these advances. A new market for independent providers of public services was opened up as a result of this substantial regulatory change, and more lately, outcomes-based expenditure and contract frameworks were used to refocus public expenditure more broadly on effectiveness and efficiency. These agreements fall under the pay-for-success (in the US) or payment-by-results (in the UK) categories. In both instances, a substantial amount of private cash has been invested in the delivery of public goods as a sustainable financing method intended to expand the market for hybrid, 'social enterprise' firms.[57]

The primary goals of banking regulation, along with the broad objectives of economic policy like fostering effectiveness, competition, inventiveness, and eventually growth in the economy, have long been accepted by legal scholars studying financial regulation. These goals involve guaranteeing the stability and integrity of markets and protecting customers. They would normally concur that the stability aims should, in theory, take precedence over the other two in the event of a dispute. After the European Commission's Sustainable Finance Action Plan was published in March 2018, the topic of sustainable banking has taken centre stage in discussions about financial regulation in the EU. Numerous new legislation and modifications to already-existing regulatory structures have been made in order to carry out the Action Plan. It is reasonable to wonder if sustainable banking is altering the fundamental essence of financial regulation given the speed and scope of these regulatory developments, which incorporate sustainable banking into every aspect of the financial rules.[58]

The United Nations Conference on Trade and Development 2022 published a report on the rise in regulations in the finance industry as a result of climate change. The paper emphasises the expansion of national rules that came after a period of innovation and capital markets' adoption of voluntary norms and initiatives. The UNCTD noted that in the previous five years, almost 40% of policy measures and regulations devoted to sustainable banking had been enacted, and 13% of them were

55 Ewan Ferlie, 'The New Public Management and Public Management Studies' (*Business and Management*, 29 March 2017) <https://doi.org/10.1093/acrefore/9780190224851.013.129> accessed 25 April 2023.

56 Helen Dickinson, 'From New Public Management to New Public Governance: The Implications for a "new public service"' in JR Butcher and DJ Gilchrist (eds), *The Three Sector Solution: Delivering public policy in collaboration with not-for-profits and business* (ANU Press 2016) 41, doi: 10.22459/TSS.07.2016.03.

57 Paulami Mitra et al, 'The Rise of Hybrids: A Note for Social Entrepreneurship Educators' (2019) 17 (2) International Review of Entrepreneurship 107.

58 Veerle Colaert, 'The Changing Nature of Financial Regulation: Sustainable Finance as a New EU Policy Objective' (2022) 59 (6) Common Market Law Review 1633.

adopted only in 2021, demonstrating the quickening speed of sustainable finance policymaking. Compulsory environmental, social, and governance (ESG) reporting has been more prevalent at the corporate level in recent years with backing from exchanges and securities market authorities. In the last five years, the total number of exchanges where issuers are presently subject to obligatory ESG disclosure standards, or 30, has more than quadrupled.[59]

2.4 Countries with sustainable finance regulations

Sustainable finance policies are being implemented in an increasing number of nations to address environmental, social, and governance (ESG) challenges. With the EU's Sustainable Finance Action Plan and China's Green Finance Initiative, the European Union and China are leading the way. Other nations, like Canada, Australia, and Switzerland, are enacting sustainable finance legislation, whereas the US has been slower to do so. These restrictions can take different forms, including reporting requirements, tax breaks, and green bond requirements. The goal of such rules is to direct private money toward more sustainable investments, increase openness and disclosure, and reduce financial risks connected with climate change and other ESG variables. More nations are likely to implement sustainable finance legislation as a method of supporting a more sustainable economy as environmental and social concerns develop.

The strongest message from China's banking and insurance regulators is that financial institutions and insurance companies must promote a green economy. It provides a new level of engagement for Chinese banks, boosting their capacities and duties in moving the economy towards zero emissions with attention to real-world outcomes and an increased emphasis on sustainability. In accordance with a new set of regulations released by the China Banking and Insurance Regulatory Commission (CBIRC), financial institutions and insurance organisations must develop plans, procedures, and resources to help with the move to a future that is sustainable.[60] It is worth noting that China's financial authority has laid down regulations for financial institutions, (re)insurance firms, and insurance asset management organisations with regard to green finance and ESG. Green financing has often been promoted rather than mandated prior to its issue. The new regulations also provide strong implementation and evaluation procedures to guarantee conformity. The regulations are assumed to be binding, notwithstanding the lack of formal enforcement by law. The outcomes of execution will influence how CBIRC rates banks, makes judgments on whether to provide access to markets and evaluates top managers' performance.

The extent and the speed of environmentally friendly finance regulation grew globally in 2022. This is according to research issued by the ISS ESG, Institutional Shareholder Services' responsible investing division. According to Global Trends in 2022, efforts that have already been proposed or put into action are analysed and broken down by area and nation. While Asia has accelerated the pace of new efforts and North America and Australia have greatly boosted regulatory activity, EU nations continue to dominate in terms of both the scope and

59 United Nations Conference on Trade and Development, 'Regulation Rising as Financial Markets Tackle Climate Risks: An UNCTAD report shows that adoption of policy measures and regulations dedicated to sustainable finance accelerated in 2021' (*UNCTAD*, 9 June 2022) <https://unctad.org/news/regulation-rising-financial-markets-tackle-climate-risks> accessed 25 April 2023.

60 Junru Liu, 'China Raises the Bar on Investor Regulations to Promote Green Finance' (*PRI Blog*, 19 October 2022) <https://www.unpri.org/pri-blog/china-raises-the-bar-on-investor-regulations-to-promote-green-finance/10659.article> accessed 25 April 2023.

depth of regulatory measures. The UK has the most comprehensive regulatory system of any non-EU nation.[61]

The UK has been cited as the lead in the move towards a low-carbon economy. The UK made a legal obligation to attain net zero GHG emissions by 2050 in 2019, making it the first large economy to do so. In 2021, the government went a step further by passing the most aggressive climate change objective ever, which calls for a 78% reduction in emissions by 2035[62] in comparison with the 1990 levels. It will need a complete economic revolution to meet these goals, along with a considerable shift in funding in favour of environmentally friendly initiatives and green technologies. The need for such investments is great, as 70% of UK citizens prefer their earnings to be used to improve the quality of life or the environment.[63]

The UK has put in place a variety of programs to emphasise how crucial it is for the financial markets to aid in the move to a carbon-neutral economy and to promote increasing net zero investment. In 2019, it released the Green Finance Strategy, which outlines two important lines of action for coordinating UK banking transactions with a low-carbon world: 'financing green', which involves mobilising private capital at scale to promote environmentally friendly and resilient development, and 'greening finance', which supports the financial services sector in conforming to the UK's net-zero dedication and broader sustainability objectives.[64]

2.5 Issues and cases on the green banking system

In view of the present global climate problem in particular, the idea of green finance is gaining popularity. As a result, a number of problems and incidents have surfaced in recent years. The absence of precise definitions and guidelines is one of the primary problems with green banking. Despite many banks making a claim to be environmentally friendly, there is no agreed-upon definition of what makes a green bank. Consumers are now likely to be confused and sceptical about whether banks are genuinely devoted to sustainability as a result of this.[65] There have been suggestions for the creation of industry-wide standards and certifications for green banks in order to solve this problem. Some groups have already developed standards and recommendations for sustainable banking practices, such as the Global Alliance for Banking on Values.[66] However, the sector still requires more transparency and lucidity.

The possibility of greenwashing is another problem with green banking. 'Greenwashing' is the act of making false or misleading information about the environmental benefits of

61 Hazel Bradford, 'Sustainable Finance Regulation Grew Around the World in 2022 — Report' (*Pensions & Investments*, 3 October 2022) <https://www.pionline.com/regulation/sustainable-finance-regulation-grew-around-world-2022-report> accessed 25 April 2023.

62 UK Department for Work & Pensions and Department for Business, Business, Energy & Industrial Strategy, *Greening Finance: A Roadmap to Sustainable Investing* (HM Government 2021).

63 UK Department for International Development, *Investing in a Better World: Understanding the UK public's demand for opportunities to invest in the Sustainable Development Goals* (HM Government 2019) 7 <https://www.impactinvest.org.uk/resources/publications/investing-in-a-better-world-understanding-the-uk-publics-demand-for-opportunities-to-invest-in-the-sustainable-development-goals> accessed 25 April 2023.

64 Anna-Marie Slot and Eileen Kelly, 'The Sustainable Finance Law Review: United Kingdom' (*The Law Reviews*, 6 January 2023) <https://thelawreviews.co.uk/title/the-sustainable-finance-law-review/united-kingdom> accessed 25 April 2023.

65 Dong Jae Lim, Nara Youn and Hyo Jin Eom, 'Green Advertising for the Sustainable Luxury Market' (2021) 29 (4) Australasian Marketing Journal 288, doi: 10.1177/1839334921999488.

66 Park and Kim (n 32).

a good or service.[67] This can happen in the context of green banking when banks make environmental claims without really taking action to lessen their environmental effect. Some groups have created tools and services to assist customers in identifying really sustainable banks in an effort to counteract greenwashing. For instance, the Banking on Climate Chaos study assesses the fossil fuel financing practices of the biggest banks in the world, while the Rainforest Action Network has developed a scorecard that ranks banks according to their social and environmental policies.[68]

There have also been a number of noteworthy examples in the field of green banking in addition to these problems. The Dutch central bank penalised ING Bank for its lax anti-money laundering and counter-terrorism funding measures in 2018, which was one of the most well-known examples. Although this case was unrelated to ING's sustainability efforts, it did serve to demonstrate the value of solid governance and risk management in the green banking industry.[69] Another noteworthy incident happened in 2019 when a group of investors petitioned Barclays Bank to gradually stop financing fossil fuel firms. The Barclays board of directors eventually rejected the motion, but it triggered a wider discussion about the part that banks play in funding activities that harm the environment.

There have been instances of green bonds being utilised more recently to finance initiatives that do not adhere to recognised sustainability requirements. For instance, the Swiss investment bank UBS came under fire in 2021 for issuing a green bond to finance a Texas natural gas project, which some claimed went against the business's declared commitment to sustainable financing.

Despite these difficulties, there have been a lot of good things happening in the field of green banking. For instance, several banks are now providing green loans and mortgages, encouraging customers to invest in houses that are sustainable and energy-efficient.[70] Several banks have also made commitments to fund renewable energy programs or to achieve carbon neutrality.

An important development in the banking sector is the growth of 'green banking', which represents a rising understanding of the need to move toward a more sustainable economy. To guarantee that green finance actually fulfils its potential, several obstacles still need to be overcome. Banks may be key players in accelerating the shift to a more sustainable future by creating clear standards and certifications, enhancing transparency and accountability, and taking proactive measures to lessen their environmental effects.

3 CONCLUSION AND RECOMMENDATIONS

This paper analyses past findings and makes helpful recommendations to regulators, legislators, and banking institutions on how to enhance their green banking practices. The fundamental goal is to guarantee that the banking industry promotes environmental sustainability while performing its primary function of financial intermediation. The key

67 Magali A Delmas and Vanessa Cuerel Burbano, 'The Drivers of Greenwashing' (2011) 54 (1) California Management Review 64, doi: 10.1525/cmr.2011.54.1.64.

68 Rainforest Action Network, 'Stop Banks Funding Climate Chaos' (*Rainforest Action Network*, 16 May 2022) <https://www.ran.org/campaign/stop-banks-funding-climate-chaos> accessed 25 April 2023.

69 Toby Sterling and Bart H Meijer, 'Dutch bank ING fined $900 million for failing to spot money laundering' (*Reuters*, 4 September 2018) <https://www.reuters.com/article/us-ing-groep-settlement-money-laundering-idUSKCN1LK0PE> accessed 25 April 2023.

70 A Annadurai, 'Effectiveness of Green Banking Technology of the Commercial Banks in India' (2014) 5 (12) International Journal of Research in Commerce & Management 98.

conclusions are discussed in detail previously, which include the role of green banking in fostering sustainability, policy and regulatory frameworks, and the rise of sustainable finance regulations. The recommendations that are presented seek to ensure that stakeholders make informed decisions aimed at decreasing the negative environmental effect of banking activities and promoting sustainability.

The recommendations advocate for a shift toward sustainable practices in the banking sector through structural measures, such as the introduction of incentives to promote sustainable lending, investment, and risk management practices. To guarantee that environmental policies are implemented and correspond to national and international standards, regulators and policymakers should also take into account the significance of monitoring and evaluating them. Moreover, it is important to encourage environmental sustainability by including stakeholders in green banking practices, such as consumer education and awareness campaigns. The guidelines are meant to give stakeholders the tools they need to advance sustainability in the banking industry and further the larger cause of minimising harmful environmental effects. Stakeholders may strive to create a sustainable future for future generations by taking a multifaceted approach to green finance.

Green banking has gained traction as a concept that promotes environmentally friendly and sustainable operations and investments. It acknowledges banks' responsibility in supporting environmental sustainability via the incorporation of environmental, social, and governance (ESG) aspects into their operations, goods, and services. This has become increasingly important in Saudi Arabia and worldwide due to global efforts to reduce greenhouse gas emissions and preserve the environment. However, despite attempts, Saudi Arabia faces substantial obstacles in adopting green banking due to the absence of explicit regulations and recommendations from the government, low public awareness of environmental sustainability, and the high cost of implementing green banking practices in an oil-based market.[71] The importance of sustainable practices in the financial sector was stressed in this study. The study discussed the importance of green banking in reaching the SDGs and how it is a vital component of sustainable financing. Banks and other players in the financial sector as a whole have a significant part to play in accomplishing sustainable objectives.

It was noted that one approach to green banking is eco-friendly banking, which stresses environmental responsibility and sustainability in its operations and policies. The value of green banking rests in its capacity to promote and support initiatives that lessen environmental risks and safeguard the environment. In addition, it can attract new investors and customers who care about the environment and society and enhance social sustainability.[72] A variety of green goods and services are available from green banking, demonstrating the company's dedication to sustainable and eco-friendly methods. Green banking is accessible and practical for users because of features like automation and Internet banking. Additionally, all green banks have the trait of responsible investing, highlighting the significance of taking ESG aspects into account when making investment decisions.[73] This study also revealed that the degree to which central banks are involved in green banking varies depending on their mandates, overarching objectives, and degrees of interagency cooperation. Because of these differences, different regulatory and policy frameworks are in place in some countries and are being established in others.

Due to the need to cut greenhouse gas emissions and protect the environment, the idea of 'green banking' is becoming more and more popular everywhere, including in Saudi Arabia. Although there are obstacles in the region to the implementation of green banking practices,

71 Oyegunle and Weber (n 4); Gavrilko and Pobochenko (n 10).

72 Streimikiene and Kaftan (n 29).

73 Julia and Kassim (n 9).

the value of green banking in promoting environmentally friendly activities and luring new customers and investors cannot be understated. A few distinguishing characteristics of green banking that make it a significant contribution to the banking sector are the variety of green goods and services, automation and internet banking, and responsible investment.

These findings have an implication that adopting green banking methods can result in a society that is more concerned about the environment. Banks that place a high priority on sustainability can help to allay environmental worries by bringing in new investors and customers who care about the environment. The banking industry has a key role to play in the subject of environmental preservation, and green banking has the potential to significantly facilitate sustainable development.

The results also show that although academics have given the notion of 'green banking' many different labels, its fundamental purpose has remained the same: creating financial institutions that emphasise economic development while encouraging ecologically friendly activities.[74] With problems like pollution, technology waste, and global warming afflicting the earth, green finance may play an important part in tackling these concerns. In recent years, there has been a rising emphasis in Saudi Arabia on green banking and sustainability, with the Kingdom working with the UK to strengthen collaboration on sustainable finance.

Promoting local governance and encouraging both public and private stakeholders to assume responsibility for leading action is necessary for achieving the Sustainable Development Goals (SDGs).[75] This calls for collaborations between the governmental, private, and civil sectors as well as sufficient funding for the SDGs' implementation. Loans, credit lines, and other financial instruments are a few examples of green banking products that may be useful tools to encourage people and businesses to adopt more ecologically friendly behaviours.[76]

Green banking, which refers to financial institutions adopting environmentally friendly practices, is a promising solution for most environmental issues. This strategy has gained momentum, and it is likely to be adopted by nearly all financial institutions across the world. However, it faces obstacles that need to be addressed to make it a viable option. This study has noted a number of challenges that should be addressed. One of the major challenges is the time it takes for these banks to become profitable – sometimes up to four years. Additionally, there is disagreement among stakeholders about the importance of green banking. Furthermore, embracing green lending can lead to higher operational costs and risks to reputation, as well as limited access to capital. To solve these challenges, a comprehensive approach that includes various stakeholders, such as the private sector, research institutions, and media, is necessary.[77] In addition, managers, executives, employees, and shareholders of the banks need to be supportive of the idea. Through collaboration and a concerted effort to address these challenges, green banking can contribute to a sustainable future.

According to the study, environmentally friendly activities may be prioritised while supporting economic growth through green banking and sustainable financing. But there are a number of challenges to be solved, including a lack of consensus among interested parties, rising prices, and restricted funding options. Diverse parties, including private businesses, research institutes, media outlets, and financial institutions, must be involved in order to address these issues. Green banking services can also be successful in motivating people and businesses to embrace environmentally friendly practices. In order to ensure a

74 Lalon (n 31).

75 Ibid.

76 Do Hoai Linh and Tran Van Anh, 'Impact of Stakeholders on the Performance of Green Banking Products and Services: The Case of Vietnamese Banks' (2017) 165 (5-6) Economic Annals-XXI 143, doi: 10.21003/ea.V165-29.

77 Lalon (n 31).

sustainable future for everybody, these findings imply that fostering sustainable finance and green banking needs coordinated effort from all stakeholders.

As was mentioned previously, there is a rising interest in sustainable finance and green banking. The absence of exact definitions and norms, on the other hand, has been noted as a serious concern. This has raised worries about the possibility of 'greenwashing' or presenting inaccurate or misleading information about a product or service's environmental advantages.[78] To address these concerns, banking authorities, political bodies, NGOs, and trade associations united to create the GBG. This guidance explains processes and policies that financial institutions may implement to decrease their carbon footprint, manage environmental risks, and contribute to the transition to a low-carbon economy.

Another significant result is that central banks play a critical role in supporting green finance goals and risk management in the banking industry. Their engagement, however, varies among nations because of differences in mandates, core aims, and levels of inter-agency coordination. Nonetheless, financial authorities and politicians in both industrialised and developing countries have begun to implement a variety of green banking initiatives.[79] Sustainable finance legislation is becoming more prevalent in nations such as the United Kingdom and China, reflecting rising societal and environmental concerns about sustainable financing.

Despite efforts to establish green banking laws and regulations, challenges have nonetheless arisen in the sector. One of the major issues is the lack of exact definitions and norms, which can lead to greenwashing. Furthermore, some notable cases have occurred, such as the use of green bonds to finance programs that do not meet accepted sustainability standards. Nonetheless, legal and regulatory frameworks must be established to guarantee that banks promote ecologically responsible activity. A well-defined GBG and sustainable finance rules, in conjunction with stakeholders, can help the banking sector to move to a greener and more sustainable future.

Saudi Arabia, one of the world's largest oil producers, has long faced criticism for its environmental practices. However, in recent years, the government has taken significant measures to lessen its environmental effect and encourage sustainable practices. The Saudi government is committed to fulfilling the 2030 Agenda's Sustainable Development Goals and has made green economic growth a cornerstone of its strategy. To help achieve this goal, the government launched a green financing program in 2019 through National Commercial Bank (NCB), with the purpose of encouraging sustainable behaviour among NCB clients and promoting and supporting green initiatives in Saudi Arabia. Furthermore, the Saudi Green Initiative, which will be launched in 2021, demonstrates the government's commitment to environmental sustainability.

Several Saudi financial institutions have also made considerable initiatives to safeguard long-term viability. Being one of the largest oil exporters in the world, its contribution towards environmental sustainability is expected across the world to be significant. This might not be the case because the financial sector in the country has not fully adjusted towards sustainability. However, several banks have started implementing sustainable strategies. For example, the Saudi National Bank has made significant advances toward ensuring sustainable banking practices that benefit society and the environment. The government has also been working around the clock to ensure that institutions in all sectors comply with guidelines. The government's efforts have resulted in the promotion of environmental initiatives and the attraction of investors to the renewable energy industry. For example, in 2017, the Ministry

78 Delmas and Burbano (n 70).

79 Park and Kim (n 32).

of Finance launched a sukuk financing scheme. This was aimed at attracting investment and advancing the Saudi Riyal capital market.

According to the results, green banking methods have been increasingly popular in China, with high-level authorities' mandates setting the framework for market development. However, when the notion of 'green banking' penetrated the banking industry in Indonesia, there was a clear lack of awareness and action from banks toward environmental and social problems. Colombian leaders have pledged to strike a balance between development and environmental, climatic, and social sustainability goals. Colombia has adopted sustainable infrastructure efforts, integrated environmental, social, and governance issues into finance sector rules, and built a local marketplace for green bonds and a green taxonomy to achieve this aim.

Based on the facts presented above, governments and financial institutions throughout the world should prioritise green banking practices in order to achieve long-term economic growth while minimising environmental effects. Saudi Arabia's lead in developing a green finance program and supporting sustainable banking practices can serve as a model for other countries. Banks such as the Saudi National Bank's efforts to ensure sustainability demonstrate that financial institutions may play a critical role in attaining sustainable development goals. Other nations can benefit from Colombia's strategy to integrate environmental and social concerns into the financial industry and create a green bond market. The promotion of green banking practices should be a priority for all stakeholders in the financial sector to ensure a more sustainable future for all.

According to the findings stated above, financial institutions should emphasise the formulation and implementation of laws and regulations that promote environmentally friendly activity. This involves following the GBG's rules and processes, as well as adhering to recognised sustainability criteria in funding activities. Finally, rules and regulations that support sustainable finance and green banking practices are critical for the banking sector and the larger economy's long-term viability. Financial institutions may contribute to a greener and more sustainable future while also giving value to their clients and stakeholders by implementing these practices.

Furthermore, it is recommended that financial regulators, political entities, NGOs, and trade groups continue collaborating to establish well-defined policies and regulations that promote sustainable finance and green banking practices. From this study, it has been identified that there is a gap in terms of knowledge on green banking by most financial institutions as well as other players in the sector. Developing clear policies and laws will not only mitigate potential issues such as greenwashing but also facilitate the shift towards a low-carbon economy. In addition, collaboration with various stakeholders in grafting these policies and regulations is crucial to achieving the SDGs. To achieve these goals, financial institutions should encourage collaboration between various stakeholders to drive action towards sustainable finance. There are a number of stakeholders that can help in advocating for sustainable practices in the finance sector. Establishing partnerships with other organisations, such as research institutions and media, will help in promoting green banking. Further, it is important to foster collaboration between stakeholders to develop a well-defined GBG that will enable the players in the banking industry to transition towards a greener and more sustainable future.

The sustainability risk management model can also be adopted by banks. If financial institutions aspire to achieve sustainability goals, they also need to invest in sustainability risk management and embrace sustainable finance regulations. Sustainability risk management (SRM) is a business approach that tries to match an organisation's financial goals with its environmental policies. SRM's goal is to make this link successful enough to support and build a business while also safeguarding the environment. Setting green financial objectives,

keeping an eye on environmental threats, reporting on them, and incorporating them into decision-making processes are all part of sustainability risk management.

The results of this study show that there is a need to promote awareness of green banking practices. The numerous stakeholders do not all agree on the benefits of green banking. Therefore, it is essential to disseminate information and training across many stakeholders, including bank employees, executives, and customers. Financial institutions may launch awareness campaigns and training programs to educate the public about the benefits of green banking.

In order to create green financial products, significant work is required. Green banking solutions can inspire people and businesses to embrace more eco-friendly behaviours. To encourage sustainable financing, financial institutions should provide green financial products, including loans, credit lines, and other financial instruments. Strengthening research and development will ensure that more green products and services are developed, and this will create a sustainable future.

As was mentioned earlier, starting and maintaining green banks can be expensive. Addressing operating expenditures is thus recommended. For financial institutions, the higher operating expenses incurred by green financing might be difficult. They can use cutting-edge technology and procedures to save operating expenses to overcome this difficulty. For instance, they may use technology to streamline procedures, use less paper, and increase productivity.

In addition, the results indicate that access to capital is required. Another difficulty for green banks is the lack of capital availability. To secure access to money, financial institutions should investigate other funding possibilities, such as green bonds and other sustainable finance products.

It is also recommended to promote sustainable practices within the financial institutions. Internal stakeholders, such as managers, executives, employees, and shareholders, play a crucial role in promoting green banking. Therefore, financial institutions should promote sustainable practices within the organisation, such as reducing carbon footprint, conserving energy and water, and minimising waste.

The key players identified earlier are important in ensuring that financial institutions operate sustainable businesses. Based on the findings of this, recommendations can also be made for policymakers, financial regulators, and financial institutions. These players should develop clear and precise definitions and guidelines for sustainable finance and green banking to avoid the potential for greenwashing. Such guidelines should be applicable across the banking sector globally. The central banks, as key regulators, are encouraged to take an active role in promoting green finance objectives and sustainability risk management in the banking sector. They should also collaborate with other agencies to ensure that their efforts are integrated and aligned.

Other than developing stringent policy and regulatory frameworks to ensure that banks support environmentally friendly activities, it is critical to support the implementation of green banking programs across the banking industry, with a special emphasis on developing countries that are still in the early stages of sustainable finance development. It is worth noting that financial institutions in developing nations are lagging behind in terms of operating sustainably. Implementation of green banking programs in these countries will see a significant reduction in greenhouse emissions.

Financial institutions should be encouraged to employ green bonds and other forms of sustainable finance to fund programs that fulfil established sustainability standards. Encouraging financial firms to employ green bonds and other forms of sustainable finance

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can have a number of advantages. For example, it can aid in the mobilisation of additional money for long-term programs that address environmental and socioeconomic issues. It may also boost financial institutions' reputation and visibility while demonstrating their commitment to sustainable development. Furthermore, it has the potential to generate new green jobs and stimulate innovation in sustainable technology.

Green banking is becoming increasingly popular not only in Saudi Arabia but also in nations beyond the Arab world. This sort of banking has grown in popularity as a result of worldwide initiatives to minimise greenhouse gas emissions and preserve the environment. According to this report, Saudi Arabia confronts significant challenges in embracing green banking due to the lack of defined government laws and guidelines. Green banking is significant because of its capacity to stimulate and support investments that safeguard the environment and reduce environmental challenges. This report recommended a wide range of activities, including encouraging green investments, reducing carbon emissions, funding renewable energy projects, and employing responsible lending practices. Green banking aims to enhance social responsibility and environmental sustainability in addition to helping banks generate money.

Regulators have a significant role to play in promoting green banking. It has been noted that the public sector, specifically central banks as well as financial regulators, must take an instrumental role in integrating green banking and ensuring that threats related to climate change are appropriately determined, examined, and reported, even though these kinds of systems and industry-led efforts are important drivers of creativity and risk mitigation.

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