# Green Finance and Its Impact on Sustainability: The Case of Sultanate of Oman and Middle East Countries

Dr. Gaurav Aggarwal<sup>1</sup>, Umar Ali khan<sup>2</sup>

Faculty Members, College of Economics and Business Administration, University of Technology and Applied Sciences, (Muscat)

Corresponding Author Email: aggarwalgaurav1980@gmail.com

## ABSTRACT

Green finance refers to financial activities and investments that promote environmentally sustainable economic growth and development. It is a key component of the transition to a more sustainable economy, as it enables the allocation of capital towards activities that contribute to mitigating climate change and reducing other environmental impacts.

The objectives of this paper is To examine, explore and provide recommendations for policymakers, investors, and other stakeholders to promote the growth and effectiveness of green finance, and to accelerate the transition towards a more sustainable and resilient economy. The research paper applied Secondary data built on qualitative approach.

The result shows the impact of green finance on sustainability is significant, as it helps to accelerate the transition towards a low-carbon economy and reduce environmental risks. Green finance encourages the development of sustainable infrastructure and technologies, which in turn creates new economic opportunities and jobs.

Moreover, by integrating environmental and social factors into investment decision-making, green finance also promotes more responsible and long-term investment strategies, which can lead to more stable and resilient financial markets.

Overall, the growth of green finance is essential to achieving the goals of the Paris Agreement on climate change and the United Nations Sustainable Development Goals, as it mobilizes capital towards activities that contribute to a more sustainable future.

Key Words: Green Finance, Climate Change, Sustainability, Investment Decision Making

Date of Submission: 10-10-2023

Date of Acceptance: 24-10-2023

## I. Introduction

Green finance has emerged as a critical tool in the global effort to promote sustainable economic development and combat climate change. The concept of green finance refers to the use of financial instruments and investments to support environmentally sustainable activities, such as renewable energy projects and sustainable infrastructure development. The impact of green finance on sustainability is significant, as it enables the allocation of capital towards activities that contribute to mitigating climate change and reducing other environmental impacts. The growth of green finance is essential to achieving the goals of the Paris Agreement on climate change and the United Nations Sustainable Development Goals, as it helps to accelerate the transition towards a low-carbon economy and promote responsible and long-term investment strategies. In this context, it is important to understand the key components of green finance, its impact on sustainability, and the potential challenges and opportunities associated with its implementation.

#### **Objectives of the Study**

The objectives of this paper on green finance and its impact on sustainability are:

To provide an overview of the concept of green finance and its key components, including green bonds, sustainability-linked loans, renewable energy project finance, and sustainable investment funds

To examine the impact of green finance on sustainability, including its contribution to mitigating climate change, reducing environmental risks, and promoting sustainable economic growth

To explore the potential challenges and opportunities associated with the implementation of green finance, including regulatory frameworks, market development, and financial innovation.

To provide recommendations for policymakers, investors, and other stakeholders to promote the growth and effectiveness of green finance, and to accelerate the transition towards a more sustainable and resilient economy.

## II. Literature Review

Green finance has emerged as a key strategy for promoting sustainable economic growth and reducing the environmental impact of economic activity. The following review of the literature examines the key components of green finance, its impact on sustainability, and the potential challenges and opportunities associated with its implementation.

Green finance encompasses a range of financial instruments and activities that promote environmentally sustainable economic growth. One such instrument is green bonds, which are fixed-income securities that finance environmentally sustainable projects and activities (Jing & Chen, 2018). Another important component of green finance is sustainability-linked loans, which are loans that are tied to sustainability performance indicators (Scholtens & Veld, 2020). Renewable energy project finance is another important area of green finance, as it provides financing for renewable energy projects such as solar and wind power (Soubra & Ng, 2017).

The impact of green finance on sustainability is significant. By enabling the allocation of capital towards environmentally sustainable projects, green finance helps to reduce the environmental impact of economic activity and promote sustainable economic growth (Holland, 2019). Moreover, by promoting responsible and long-term investment strategies, green finance can help to create more stable and resilient financial markets (Meng et al., 2019). Green finance can also contribute to the achievement of the United Nations Sustainable Development Goals, particularly those related to clean energy, sustainable infrastructure, and climate action (Hsu et al., 2018).

Despite its potential benefits, the implementation of green finance also presents challenges and opportunities. One major challenge is the lack of regulatory frameworks and standards for green finance, which can make it difficult to assess the environmental impact and credibility of green finance instruments (Scholtens & Veld, 2020). Another challenge is the need for financial innovation to develop new green finance instruments and products (Holland, 2019). Opportunities for the growth of green finance include the increasing demand for sustainable investments and the potential for collaboration between public and private sectors to finance sustainable projects (Soubra & Ng, 2017).

Cheng, X., Tan, L., & Huang, Y. (2021). study examines the relationship between green finance and corporate sustainable performance, and finds that innovation plays a mediating role in this relationship. The authors argue that green finance can encourage innovation in sustainable technologies and practices, leading to improved environmental performance.

Dhiman, V., Singh, R., & Anand, A. (2019). This review article provides a comprehensive overview of green finance, including its various components, policies, and practices. The authors argue that green finance is critical to achieving sustainability goals, and that it can help to address challenges such as climate change, resource depletion, and environmental pollution.

Gao, J., Zhang, Q., & Song, M. (2019). This study examines the impact of green finance on the environmental performance of Chinese firms, and finds a positive relationship between the two. The authors argue that green finance can encourage firms to adopt more sustainable practices, leading to improved environmental performance and reduced environmental risk.

Sharma, R., & Mishra, A. K. (2021). This article reviews the regulatory and policy frameworks for green finance, and argues that such frameworks are critical to the institutionalization of green finance and its effectiveness in promoting sustainable development. The authors examine case studies from different countries to identify best practices in green finance regulation and policy.

Al-Louzi, O. A., & Busler, M. (2021). This article examines the status of green finance and sustainability in the Middle East region, with a focus on Saudi Arabia, Qatar, and the United Arab Emirates. The authors argue that there is significant potential for green finance to promote sustainable development in the region, but that there are also challenges such as a lack of awareness, regulatory frameworks, and financial infrastructure.

El-Katiri, L. (2020). study explores the role of Islamic finance in promoting sustainable development in the Middle East and North Africa (MENA) region. The author argues that Islamic finance, with its emphasis on ethical and social responsibility, can be an important tool for promoting sustainability in the MENA region. The study also identifies challenges such as the lack of standardization and harmonization in the Islamic finance industry.

International Renewable Energy Agency. (2021). Report provides an analysis of the renewable energy market in the Gulf Cooperation Council (GCC) countries, which include Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. The report highlights the potential for renewable energy to support sustainable development in the region, and examines policies and initiatives aimed at promoting renewable energy deployment.

Saeed, S. (2019). This study examines the opportunities and challenges of green finance in the GCC countries, with a focus on Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. The author argues that green finance can play a key role in supporting sustainable development in the region, but that there are challenges such as the lack of regulatory frameworks, financial infrastructure, and public awareness. The study also identifies potential solutions to address these challenges.

Al-Sari, M. I., & Al-Badi, A. H. (2020). Examines the potential of green finance in the Gulf Cooperation Council (GCC) countries, with a focus on Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. The authors argue that green finance can play a key role in promoting sustainable development in the region, and identify opportunities for green financing in sectors such as renewable energy, energy efficiency, and sustainable transport.

Al-Shaer, H., & Fakhruddin, H. (2020). Studies the role of green finance in promoting sustainable development in the United Arab Emirates (UAE), and identifies opportunities and challenges in the context of the UAE's economic and financial landscape. The authors argue that green finance can support the UAE's efforts to diversify its economy and reduce its dependence on fossil fuels, and highlight the potential of green bonds and sukuk in financing sustainable development projects.

Elbousty, Y., & Boubakri, N. (2021). This study examines the impact of green financing on corporate performance in the Middle East and North Africa (MENA) region, and finds a positive relationship between the two. The authors argue that green financing can enhance corporate environmental and social responsibility, leading to improved financial performance and market reputation.

United Nations Environment Programme. (2019). Report explores the potential of Islamic finance in supporting sustainable development, with a focus on the Middle East and North Africa (MENA) region. The report highlights the alignment of Islamic finance principles with sustainable development goals, and identifies policy measures and financial instruments that can promote the growth of Islamic finance for sustainable development in the MENA region.

Al Hinai, N. (2020). This article examines the potential of sustainable finance in Oman, with a focus on Islamic finance as a key driver of sustainable development in the country. The author argues that Islamic finance can promote ethical and socially responsible investment, and identifies opportunities and challenges for the development of sustainable finance in Oman.

Al-Zadjali, S., & Al-Hinai, K. (2020). Study assesses the readiness of Omani banks for sustainable banking, and examines the factors that influence their adoption of sustainable practices. The authors find that Omani banks are moderately ready for sustainable banking, and identify challenges such as a lack of awareness, regulatory frameworks, and customer demand. The study also identifies potential solutions to address these challenges, such as capacity building and collaboration among stakeholders.

Khan, F. A., & Gouda, M. (2019). Explores the feasibility of green financing in Oman, with a focus on the potential for green bonds and sukuk to support sustainable development projects in the country. The authors identify opportunities and challenges for green financing in Oman, and suggest that the government and financial institutions can play a key role in promoting the growth of green finance.

Sharma, R., & Al Balushi, H. A. (2021). Examines the status of Oman's renewable energy sector, and identifies policies, challenges, and opportunities for the deployment of renewable energy in the country. The authors argue that the government's commitment to renewable energy, along with the potential for green financing and international partnerships, can support the growth of Oman's renewable energy sector and contribute to its sustainable development.

#### Advantages of Green Finance for Businesses:

Access to capital: Green finance allows businesses to access capital from a growing pool of investors who are interested in sustainable investment opportunities.

Lower cost of capital: By incorporating environmental, social, and governance (ESG) factors into their operations and reporting, businesses can improve their risk profile and potentially lower their cost of capital.

Improved reputation: Implementing sustainable practices can enhance a business's reputation and brand, which can help to attract customers, investors, and employees.

Compliance with regulations: Many countries are implementing regulations aimed at reducing greenhouse gas emissions and promoting sustainable practices. By complying with these regulations, businesses can avoid fines and penalties, as well as improve their environmental performance.

#### Limitations of Green Finance for Businesses:

High upfront costs: Implementing sustainable practices can require significant upfront investment, which can be a barrier for small and medium-sized businesses with limited resources.

Uncertain returns: The benefits of green finance, such as improved reputation and lower cost of capital, are difficult to quantify and may not be realized immediately. This can make it difficult for businesses to justify the upfront costs of sustainability initiatives.

Limited availability of financing: While the green finance market is growing, it is still relatively small and may not be accessible to all businesses, particularly those in emerging markets.

Lack of standardization: There is currently no widely accepted standard for measuring and reporting sustainability performance, which can make it difficult for businesses to compare their performance to their peers and attract sustainable investment.

## III. Data Analysis:

Various Secondary information available on the topic. Here are some secondary data sources on the topic of green finance and sustainability.

According to the Global Sustainable Investment Review 2020, the global sustainable investing market was worth \$31 trillion in 2019, up from \$22.8 trillion in 2016. It includes data on the size and growth of the sustainable investing market, as well as regional breakdowns and case studies.

As per the report of United Nations Environment Programme. (2020). The Global Trends in Renewable Energy Investment 2020 report by the United Nations Environment Programme found that global investment in renewable energy totaled \$282.2 billion in 2019, up from \$274.8 billion in 2018.

Arabesque. (2020). The State of ESG Data and Analysis 2020. report provides an overview of the state of ESG data and analysis, including trends and developments in the availability and use of ESG data and metrics by investors and companies. It includes data on the growth of ESG investing, as well as case studies and best practices. The Arabesque report found that 85% of S&P 500 companies published sustainability reports in 2019, up from 20% in 2011

International Energy Agency. (2020). Energy Technology Perspectives 2020. report provides data and analysis on global trends in energy technology, including the deployment of renewable energy technologies, energy efficiency, and energy storage. It includes data on technology costs, policy frameworks, and market outlooks, as well as regional breakdowns and case studies. report states that solar and wind power are now the cheapest sources of new electricity generation in most of the world.

Bloomberg NEF. (2021). New Energy Outlook 2021. report provides data and analysis on global trends in energy transition, including the deployment of renewable energy technologies, electrification, and decarbonization. It includes data on technology costs, policy frameworks, and market outlooks, as well as regional breakdowns and case studies. The report says the share of renewable energy in global power generation is expected to increase from 29% in 2020 to 56% in 2050. The report also projects that the cost of renewable energy will continue to decline, with solar and wind power becoming the cheapest sources of new electricity generation in most of the world by 2030.

#### IV. Recommendations and Suggestions:

Based on the data and literature reviewed, here are some recommendations and suggestions for businesses looking to leverage green finance to enhance their sustainability efforts:

Implement sustainability initiatives: To attract green finance, businesses should implement sustainability initiatives such as reducing greenhouse gas emissions, increasing energy efficiency, and sourcing renewable energy. These initiatives can help to improve a business's reputation and potentially lower its cost of capital.

Monitor and report sustainability performance: Businesses should track their sustainability performance and report it transparently to stakeholders. This can help to build trust with investors and customers, as well as demonstrate compliance with regulations.

Engage with sustainable investors: Businesses should engage with sustainable investors and understand their specific criteria for investment. This can help to tailor a business's sustainability strategy and reporting to meet the needs of these investors.

Explore green bonds: Businesses can explore the use of green bonds, which are debt instruments that are specifically designed to fund sustainable projects. Green bonds can provide a lower cost of capital than traditional debt, and can also help to demonstrate a business's commitment to sustainability.

Collaborate with peers: Businesses can collaborate with their peers to share best practices and knowledge on sustainability initiatives. This can help to accelerate the adoption of sustainable practices, as well as improve a business's sustainability performance.

Invest in research and development: To continue to drive down the cost of renewable energy and other sustainable technologies, businesses should invest in research and development. This can help to identify new opportunities for sustainable innovation, as well as reduce the upfront costs of sustainability initiatives.

By implementing these recommendations and suggestions, businesses can not only enhance their sustainability performance, but also potentially access a growing pool of sustainable investment capital.

#### V. Conclusion

In conclusion, green finance has emerged as an important tool for promoting sustainability and combating climate change. Businesses that embrace sustainable practices and reporting can access a growing pool of green finance, which can provide benefits such as lower cost of capital, improved reputation, and access to new markets.

While there are still limitations to green finance, including high upfront costs and limited availability of financing, the trend towards sustainability is likely to continue as more countries and investors prioritize ESG factors in their decision-making.

To succeed in the current business landscape, it is important for businesses to incorporate sustainability into their strategy, operations, and reporting. By doing so, businesses can not only contribute to a more sustainable future, but also potentially unlock new opportunities for growth and innovation. With the right approach and mindset, green finance can be a powerful tool for businesses to achieve their sustainability goals and drive positive impact.

#### **References:**

- Aggarwal Gaurav, Noman F(2013), "Foreign Direct Investment in Indian Retail Sector" Journal of Management Research and Review Vol. 3/ Issue 8/ Article No. 19/3342-3352/ISSN No. 2249-7196
- [2]. Aggarwal Gaurav, Saksena S, Kaur S. (2010). "Financial Inclusion: Old Wine in New Bottle". International Journal of Commerce & Management, Vol. 1/ Issue 6/ Article No. 13/ 87-89 ISSN No. 0976-2183.
- [3]. Al Hinai, N. (2020). Sustainable finance in Oman: The case of Islamic finance. Sustainability Accounting, Management and Policy Journal, 11(6), 1116-1137.
- [4]. Al-Louzi, O. A., & Busler, M. (2021). Green finance and sustainability in the Middle East. Journal of Environmental Management, 283, 111959.
- [5]. Al-Sari, M. I., & Al-Badi, A. H. (2020). The potential of green finance in the Gulf Cooperation Council (GCC) countries. Renewable and Sustainable Energy Reviews, 118, 109526.
- [6]. Al-Shaer, H., & Fakhruddin, H. (2020). Green finance and sustainable development: A case study of the UAE. Sustainable Cities and Society, 54, 101974.
- [7]. Al-Zadjali, S., & Al-Hinai, K. (2020). Assessing the readiness of Omani banks for sustainable banking: An empirical analysis. Journal of Financial Regulation and Compliance, 28(4), 526-541.
- [8]. Arora R, Aggarwal Gaurav (2012), "Environmental Accounting and It's Endeavour in India" International Journal of Management Research and Review/ Vol. 2/ Issue 8/ ISSN No. 2249-7196/pp. 1361-1368
- [9]. Cheng, X., Tan, L., & Huang, Y. (2021). Green finance and corporate sustainable performance: The mediating effect of innovation. Journal of Cleaner Production, 279, 123614.
- [10]. Dhiman, V., Singh, R., & Anand, A. (2019). Green finance: A comprehensive review of concepts, policies, and practices. Journal of Cleaner Production, 232, 1268-1280.
- [11]. Elbousty, Y., & Boubakri, N. (2021). The impact of green financing on corporate performance: Evidence from the Middle East and North Africa region. The Quarterly Review of Economics and Finance, 79, 1-14.
- [12]. El-Katiri, L. (2020). Islamic finance and sustainable development in the Middle East and North Africa. Energy Research & Social Science, 63, 101413.
- [13]. Gao, J., Zhang, Q., & Song, M. (2019). Green finance and environmental performance: Evidence from China. Journal of Cleaner Production, 235, 1220-1230.
- [14]. Holland, A. (2019). Green finance: Can it help combat climate change? Investment Executive, 26(3), 16-18.
- [15]. Hsu, J., Wang, Y., & Hsu, M. (2018). Green finance and sustainable development: An empirical study. Journal of Cleaner Production, 198, 1438-1452.
- [16]. International Renewable Energy Agency. (2021). Renewable Energy Market Analysis: The GCC Region. Abu Dhabi, UAE: International Renewable Energy Agency.
- [17]. Jing, L., & Chen, H. (2018). The driving factors of green bond issuance: Evidence from China. Journal of Cleaner Production, 191, 1-10.
- [18]. Khan, F. A., & Gouda, M. (2019). The feasibility of green financing in Oman: A qualitative study. International Journal of Energy Economics and Policy, 9(3), 53-58.
- [19]. Meng, X., Wei, Y., & Zhang, Y. (2019). How does green finance influence carbon emissions? Evidence from China. Journal of Cleaner Production, 231, 1009-1017.
- [20]. Saeed, S. (2019). Green finance in the GCC countries: Opportunities and challenges. Renewable and Sustainable Energy Reviews, 110, 53-62.
- [21]. Scholtens, B., & Veld, C. (2020). Green bonds and their certification: Who is left out? Energy Economics, 85, 104564.
- [22]. Sharma GS, Aggarwal Gaurav (2017), "HRM Orientation towards Management of Private Educational Institutions in India", International Journal of Economic Review & Business Research, February, Vol. 4/Issue 1/ ISSN No. 2397-2237/pp. 87-93
- [23]. Sharma GS, Aggarwal Gaurav (2017), "Intervention of HRM in Management of Un-Organized Service Industry in India" International Journal of Technical Research and Science, Vol. 2/Issue 6/ ISSN No. 2454-2024/pp. 395-398.
- [24]. Sharma, R., & Al Balushi, H. A. (2021). Oman's renewable energy sector: Policies, challenges and opportunities. Renewable and Sustainable Energy Reviews, 137, 110582.
- [25]. Sharma, R., & Mishra, A. K. (2021). Institutionalizing green finance for sustainable development: A review of regulatory and policy frameworks. Journal of Cleaner Production, 311, 127503.
- [26]. Soubra, A., & Ng, C. K. (2017). Renewable energy project finance: Review and analysis of current state of the art. Renewable and Sustainable Energy Reviews, 77, 297-308
- [27]. United Nations Environment Programme. (2019). Islamic Finance and Sustainable Development: Policy-Making and Implementation. Geneva, Switzerland: United Nations Environment Programme.