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State-of-the-Art Practice in Sustainable Finance Existing Evidence and Future Outlooks

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ABSTRACT

This systematic literature review explores the economic impact of sustainable finance, examining the debate on the role of natural resources in economic growth. The study identifies the positive economic impacts of sustainable finance, using a comprehensive search for relevant literature. Several themes were identified from the 34 journal articles included in the study: enhanced innovation, job creation and economic growth, positive reputational impact, improved risk management, improved access to capital, and increased investments in sustainable economic activities. These themes outline the economic impact of sustainable finance. The study focuses on the positive economic effects of sustainable finance.

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Introduction

Sustainable finance encompasses the act through which the current generation is able to manage its resource base in a manner that ensures that its impact can be shared by the future generations [1]. According to Lagoarde-Segot, (2018), sustainability in finance is fulfilled when three conditions are met. First, there should be a balance between the rate at which the natural resources are consumed and the rate at which they are renewed. Secondly, the rate at which waste is produced should not exceed the ability of the environment to assimilate it. Thirdly, the rate at which the non-renewable resources are utilized should not exceed the rate at which they are replaced by the renewable resources. The ability of an economy to fulfill the three basic conditions determines the strength of the sustainable finance.

In the current times, green and sustainable finance have attracted the attention of stakeholders and scholars in economics. Businesses are faced with challenging business economics environment, which could lead to compromise of the sustainable finance yet they are expected to act within the principles of sustainability [2]. Green and sustainable finance have become central issues in measurement of the organization's success, competitive advantage, and the ability to influence the market. The issue of sustainable finance is more inclined to the utilization of the natural resources and the effect that such has on the environment.

There is a raging debate on the role of natural resources in economic growth, with scholars torn between its merits and demerits, necessitating the need to create a balance through sustainable finance. Abundance of the natural resources can promote economic growth. gives an example of China indicating that its rapid growth in the recent years has been associated with the extensive use of its vast natural resources [3]. However, the utilization of the natural resources in China has also been coupled with serious adverse effects such as high energy intensity and environmental pollution. In China, there is increased production of industrial waste, which has become a serious concern across the globe.

Failure to adhere to the financial sustainability principles is also associated with adverse effects. According to, misuse of the natural resources is associated with environmental and health effects [4]. Similarly, found that utilization of the natural resources in developing countries is the cause for environmental issues [5]. This is also evident in developed nations as resource rich countries also promote economic growth without paying the needed attention to the environmental impact [6]. For the countries that are utilizing the natural resources, there is emission of carbon, which highlights the environmental challenge that they face in attempting to attain rapid economic growth.

The problem of lack of financial sustainability is exemplified by the fact that most of the natural resources are non-renewable hence the negative effects it has on the environment. According to, utilization of crude oil and other non-renewable resources is high yet the marginal productivity of this resource is low. From an economical aspect, scholars have noted that due to the increased demand to ensure that there is financial sustainability, the use of technology in extraction of natural resources and optimal utilization of non-renewable resources, the production of carbon emissions. It is also imperative that nations create a balance between the utilization of the natural resources and derivation of the economic benefits [7].

Due to the controversies relating to the role played by natural resources, it has become necessary to explore aspects relating to sustainable finance to ensure that there is a balance between the economic impact and protection of the environment [8]. Further, many studies have explored on the negative effects of failing to adhere to the principles of sustainable finance, but there lacks conclusive information on the economic impact of sustainable finance. The purpose of this systematic literature review study is to explore the economic impact of sustainable finance. Therefore, the systematic literature review provides response to the research questions: What are the positive economic impacts of sustainable finance?

Methodology

The research question for the systematic literature review was: "What are the positive economic impacts of sustainable finance? The search strategy involved a comprehensive search for the relevant literature from a range of electronic databases that publish peer reviewed journals. The following databases were included in the search Web Science, Scopus, and Science Direct. The selected databases were included as they publish multi-disciplinary articles ranging from social sciences to economics. In addition, the researcher relied on more than one database since every database has its own unique coverage and indexing approaches. Furthermore, there is no any single database that can provide a complete coverage of the literature relating to a certain topic. Searching multiple database increases the chances of identifying relevant studies and reducing the risk of missing on the important studies that could provide relevant information that can answer the research question.

For this study, the search terms and keywords applied included: Sustainable finance, Environmental finance, Green Finance, ESG (environmental, Social, and Governance) investing, socially responsible investment, Sustainable Investment, Impact investing, Responsible Finance, Drivers for sustainable finance, Motivations, Implementation of Sustainable finance, practices, policies, and strategies. The terms and phrases were combined using Boolean operators such as "AND" and "OR" to refine the search and generate more relevant and specific results. The researcher also included synonyms in the search terms to ensure comprehensive search.

Inclusion Criteria

- Peer reviewed studies
- Studies published in English Language
- Studies published in the last ten years
- Studies that investigate the motivations for adopting and implementing sustainable finance in the financial sector.
- Studies that discuss the benefits and challenges of sustainable finance.
- Studies that the impact of sustainable finance on the financial performance of companies or the broader economy.
- Studies that provide recommendations for improving the adoption and implementation of sustainable finance.

Exclusion Criteria

- Studies that are not peer reviewed.
- Studies that are not in English language.
- Studies that are not published in the last ten years.
- Studies that are not related to the financial sector or sustainable finance.
- Studies that do not focus on motivations for adopting and implementing sustainable finance.
- Studies that only provide a theoretical framework without empirical evidence or analysis.

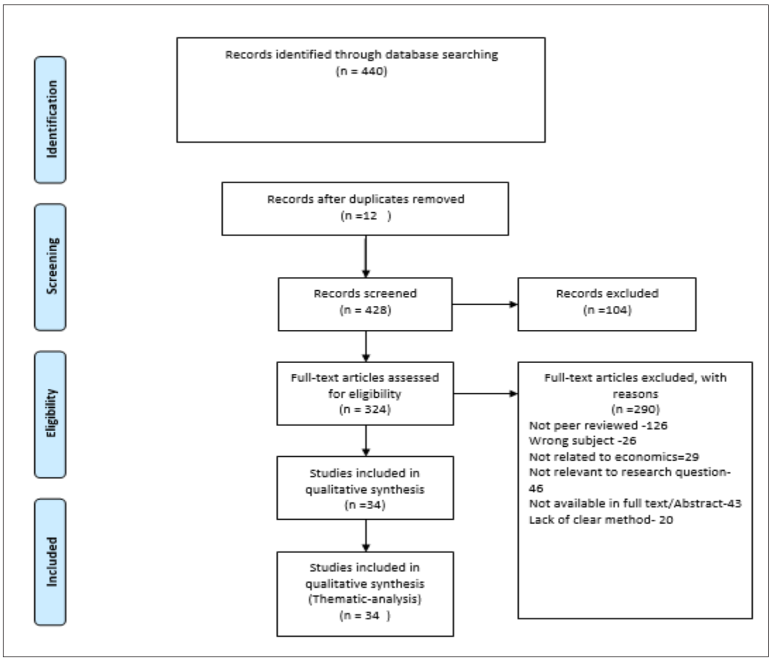
Data Extraction and Synthesis of Data

The researcher developed data extraction form to be used in recording relevant information from the articles included. The form included descriptive as well as analytics data on the article included. After reviewing the included articles for accuracy, the researcher extracted data on the type of study, the study characteristics, and the outcome. The process of managing the data was conducted in a transparent way that can be replicated. After the process of data extraction, data was analyzed and synthesized in order to identify the patterns, themes, and gaps in the literature.

Results

The literature search from the three-database using the different keywords and their combination using Boolean operators led to 440 articles that were found, which were screened and evaluated as shown in the Prism flow diagram. The articles were subjected to the review process where 12 of them were removed as they were duplicates. Additions of 104 articles were removed as they were published later than 2015 while others were not in English language. The elimination of 104 articles left 324 articles that were assessed for eligibility. From the analysis, 126 articles were removed as they were not peer reviewed, 26 of them were from a wrong subjects (not related to sustainability, finances, or economics). In addition, 29 of the articles were removed as they did not focus on the economic impact of financial sustainability. Further, 46 of the results were not relevant to the research question and 43 of them were not available in full text and hence eliminated. In addition, 20 of the articles identified were removed as they lacked a clear methodology. A total of 290 articles were removed after conducting the accessibility leaving 34 articles that were included in the synthesis.

PRISMA 2009 Flow Diagram



Synthesis of the Findings

The identified articles were analyzed thematically to determine the emerging pattern. From the analysis, several themes were identified after the researcher found an emerging pattern from the findings of the study relating to the economic impact of implementing sustainable finance. The themes were: increase in investment in sustainable economic activities, increase access to capital, enhanced innovation, and improved risk management, positive impact on reputation, and job creation and economic growth.

Increased Investments in Sustainable Economic Activities

Sustainable finance is associated with increase in long term investments and activities, which enhances economic growth. This theme was identified from the following sources [9-12]. Delsen and Lehr (2019) conducted a linear and logit regression model and found that an increase in the demand for sustainability was associated with growth in investments across the economies. Similarly, Karlsson (2019) found that corporate sustainability strategy contributed to the long-term growth in investments and sustainable business success. Shalneva and Zinchenko (2019) conducted a behavior analysis in the derivative market trading revealing that investors increased attention to the green stocks and bonds, which led to increase in the level of investment. Indeed, there was a positive correlation between sustainability and increase in demand for responsible environment. Ziolo et al. (2021) found that with the increased demand to attain the sustainable development goals, there is a growth in the level of investments directed towards environmental sustainability.

Improved Access to Capital

From the analysis, the theme of improving access to capital was identified from four sources [13-16]. Companies that prioritized ESG factors demonstrated good sustainability leading to better access to capital and potentially lowering the cost of borrowing. According to Al Breiki and Nobanee (2019), there was increased allocation of capital budgeting for sustainable issues thereby enhancing the competitive advantage of business. On the same note, Khan et al. (2016) found that integration of sustainability factors influenced the capital allocation decisions. Shad et al. (2020) indicated that for firms that invest in sustainability, they tend to generate positive value through enhancement of the reputational capital. Sustainability allowed effective allocation of capital for investors, thereby bringing the market pressures to improve on the sustainability practices as well as contributing to the sustainable development.

Improved Risk management

From the analysis, it is evident that sustainable finance encouraged investors to make proper risk management decisions including the evaluation of the potential environmental and social risks. According to the analysis results, there is greater and efficient risk management among the companies as they seek to become more sustainable financially. This theme was identified in the seven articles [17-23]. Aziz et al. (2015) found that corporate governance influenced the companies' decision to adopt sustainable business practice through holistic risk management. Companies that adopted sustainable finance were able to conduct financial and non-financial risks. Indeed, companies were able to ensure sustained risk management and address the issue of sustainability risks. This is confirmed by Gambetta et al (2021), who noted that financial institutions that work towards sustainable development goals tend to show less capital risk and hence engage in lesser risk due to reliance on sustainability reports. Gonenc and Scholtens (2017) also concluded that due to sustainable finance, stakeholders' perspective helps in ensuring that there is adequate financial risk analysis.

Firms that engage in sustainable finance tend to have improved reputational and operational risks, which indicate that sustainability practices help in risk management (Hallikas et al., 2020). Indeed, companies that invest in sustainability were more likely to improve the performance and purchasing supply management (Hallikas et al., 2020). This was also evident in the banking industry were engaging in accounting for sustainability among the banks helped to augment the bank risk management as well as provide guidance on internalizes and externalities (Scholtens & van't Klooster, 2019). This is confirmed by Gutsche and Ziegler (2019) who found that investors who have greater awareness of the sustainable investment tend to demonstrate higher willingness to sacrifice returns after conducting risk evaluation and management. Xu et al. (2020) noted that there is a non-linear relationship between debt financing and sustainable financial growth. This depicts that firms that engage in sustainable tend to engage in appropriate debt management and risk analysis.

Positive Reputational Impact

Companies that prioritize sustainability and ESG factors in their operations benefit from the improved reputation from customers, investors as well as other stakeholders. This theme was evidenced from five participants [24-28]. For instance, Tseng et al. (2019) indicated that the implementation of sustainable supply chain finance enhances the competitive edge of firms across various dimensions. This suggests that the promotion of collaborative value innovation, strategic competitive advantage, and financial attributes are critical factors in enhancing firm performance. similarly, Partial least squares structural equation modeling data analysis shows that sustainable development strategies have a beneficial impact on financial performance both directly and indirectly via staff happiness, customer loyalty, and brand reputation (Phan et al., 2020). Naz and Siddiqui (2020) in a quantitative study found that organizations benefit from reputational gain due to corporate sustainability. Risal and Joshi (2018) indicated that promoting environmentally friendly technology by banks and the government is crucial for improving banks' standing and consumers' knowledge of them. Maletič et al. (2016) in an empirical data revealed that those organizations may enhance their financial and non-financial performance such us improved loyalty by placing a high focus on sustainability measures.

Job Creation and Economic Growth

According to scholars, sustainable finance promotes economic growth and directs investments towards such project s and activities that in turn create jobs. According to scholars, there is significant economic growth that is associated with green investment. This theme was identified from seven article sources [29-35].

In a study that was based on theoretical and practical inputs drawn from the top industrial hubs in India, the researcher supports the premise that sustainability-oriented innovation techniques are unquestionably favorable to generate development and performance gains (Gupta, 2017). Additionally, because organizations are involved at both the strategic and operational levels, there is a direct relationship between proactive socio-environmental practices and economic performance, as well as their positive mediating effect improved economic performance (Annunziata et al., 2018). A study by Almansoori and Nobanee in 2019 shows that sustainable practices in the company enhance financial growth and decision-making with regard to the cost of capital, capital budgeting, investment returns, and working capital management.

Bour et al. (2019) found an R Square of 0.813 that demonstrates that industrial organizations' use of environmental sustainability strategies significantly increases their operational profit margins. The predictor variables' regression coefficients are once again significant at 1% and 5%. The cost of maintaining ESPs and the plans for improving ESPs have a substantial (1% correlation) correlation. To improve the operations of manufacturing enterprises, further sustainable practices are advised (Bour et al., 2019). Birou et al. 2019) confirms this assertion by indicating that education and training in sustainability aid in the adoption of sustainable supply chain practices, which in turn enhance sustainability outcomes and economic performance (Birou et al., 2019). By providing elements of sustainability performance and serving as a guide to choose appropriate sustainable manufacturing practices, the framework suggested here can also help the manufacturing industries conduct sustainability assessments (Abdul-Rashid et al., 2017). It can also help determine how much the practices need to be improved in order to maximize businesses' sustainability performance. According to Sroufe et al. (2019), there are beneficial correlations between the dimensions of company financial success and the management of sustainability practices that increase social sustainability performance.

Enhanced Innovation

Sustainable finance is associated with increased innovation in different aspects such as renewable energy, resource efficiency, and sustainable agriculture. This theme was evidenced from six articles [37-41]. According to Liu et al, (2021) through the advocacy and implementation of the sustainable finance, organizations are compelled to seek technological innovation and green approaches to ensure environmental conservation. This is confirmed by Yuan et al. (2021) who found that there is a correlation between promotion effect of financial innovation and green innovation. Wang et al. (2021) indicated that through the advocacy and implementation of sustainable finance, different actors including the government are compelled to promote industrial and technological innovation to establish green concepts that are environmentally friendly. Jian et al. (2019) found that organizations are undertaking financial innovation to meet the demand of sustainable development. This entails the optimization of energy structures and increased efficiency in the utilization of energy. Maletic et al. (2015) also noted that greater engagement in sustainability leads to innovative performance and financial and market performance. Globocnik et al. (2020) concluded on this by indicating that sustainability related innovation has a moderate positive effect on economic innovation performance [42-45].

Discussion and Conclusion

The purpose of this study was to provide response to the question: What is the positive economic impact of sustainable finance? From the 34 journal articles that were included in the study, there are several themes that were identified: enhanced innovation, job creation and economic growth, positive reputational impact, improved risk management, improved access to capital, and increased investments in sustainable economic activities. These themes outline the economic impact of sustainable finance. While there has been past studies that have outlined negative effects of sustainable finances due to the high costs of implementation, the current study has focused on the positive outcome. The six themes that were identified all outlined the positive economic effect of the sustainable finance. While this topic encompasses two major concepts: economical and environmental, the current study focuses on the economic aspects only. Therefore, based on the data collected, it can be deduced that sustainable finance plays different positive effect on the economy. Nonetheless, findings from this study do not negate the fact that there are negative effects that are associated with sustainable finance. However, the researcher focused on the positive outcomes in order to lay a greater emphasis. As such, it would be recommended that more studies be conducted focusing on the negative effects of sustainable finance.

The findings from this study could inform practices and policy making. The study has demonstrated that for firms engaging in sustainable finance benefit immensely from an economic aspect. Therefore, the findings from could form basis for the relevant government agencies to promote sustainable finance to promote economic growth. Secondly, the findings from this study could also inform the management of companies to ensure that activities that a firm undertakes are guided by the basic sustainable finance. Findings from this study may also help in creating awareness to the financial institutions to enhance this approach towards the attainment of the highlighted positive effects. Nonetheless, the implementation of sustainable finance requires an in-depth.

Based on the findings from the study, it can be concluded that sustainable finance plays a huge role in enhancing the economy at micro and macro levels. The commonly cited benefits of sustainable finances from the literature include enhanced innovation, job creation and economic growth, positive reputational impact, improved risk management, improved access to capital, and increased investments in sustainable economic activities. While several studies have been conducted on the impacts of sustainable finance, there has been inconsistencies and failure by scholars to underscore on whether sustainable finance influences organizations positively or negatively. The current study has therefore focused on the positive effects and hence recommends future research focusing on the negative impacts of sustainable finance.

Conflict-of-interest disclosure statement

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I have nothing to disclose.

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