DOI: https://doi.org/10.52131/pjhss.2022.1004.0295

Pakistan Journal of Humanities and Social Sciences

Volume 10, Number 4, 2022, Pages 1371–1383
Journal Homepage:
https://journals.internationalrasd.org/index.php/pjhss

# Role of Green Finance in Attaining Corporate CSR Goals

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**ARTICLE INFO**

***Article History:***
Received: August 11, 2022
Revised: December 22, 2022
Accepted: December 26, 2022
Available Online: December 31, 2022

***Keywords:***
CSR
Green Finance
Banks
Sustainability

***Funding:***
This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

**ABSTRACT**

To achieve sustainable development goals, economies are increasingly adopting a green financing strategy. Socioeconomic and environmental initiatives are required for the long-term growth of the firm. CSR developed as a strategy to foster social harmony via the sustained prosperity of corporations. However, in order for organizations to remain consistent with their CSR and sustainability objectives, enormous resources are required. This study explores how green finance contributes to accomplishing, succeeding at, and strengthening CSR in the banking sector. Primary information was gathered from 320 workers in the Pakistani banking sector in order to establish the relationship between the variables used in this study. Green financing and its environmental, economic, and social considerations contribute to the improvement of CSR's numerous aspects, as shown by survey data. The results demonstrated a positive relationship between green finance dimensions and CSR goals. Based on these findings, the researcher concludes the hat financial services industry should put more resources into cultivating CSR behaviours.

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## 1. Introduction

In the last few decades, most countries, especially those that are still developing, have put economic growth ahead of protecting the environment. So, they have to deal with problems like global warming, the extinction of species, environmental degradation, soil erosion, air pollution, deforestation, and the loss of farmland (Sinha, Mishra, Sharif, & Yarovaya, 2021). Ziolo, Filipiak, and Tundys (2021) say that Pakistan has a lot of potential for economic growth and market leadership in the 21st century, which would make it one of the next developing countries in the world. However, like many other developing countries, Pakistan is having trouble with the effects of climate change on the environment. They have come up with a number of ways to reduce these risks and promote sustainable growth, such as the use of "green finance". In this way, financial institutions are very important because they fund a wide range of projects that are good for the environment and support socially responsible projects, such as clean energy, alternative energy, energy efficiency, renewable energy, green industry development, and waste management, just to name a few. All of these actions make businesses and the U.S. as a whole more sustainable (Zhang, Mohsin, Rasheed, Chang, & Taghizadeh-Hesary, 2021).

According to recent research, CSR (Corporate Social Responsibility) has emerged as a mainstream phenomenon that influences customer purchasing decisions (Velte, 2022). When it comes to establishing new connections, the service industry is consistently ranked among the most popular options worldwide. With global market competitiveness at an all-time high, it's more critical than ever to keep your present consumers and find ways to attract new ones. In terms of products, there is also standardization and agreement because the central or state bank of the government keeps a close eye on the banking industry and the banks cannot offer the product on their own. As a result, financial institutions began using CSR as a differentiating and relationship-building approach in the marketplace. This aided in client retention and ultimately boosted the institutions' market value (Lee, 2020).

By fostering the growth of relationships that last for a longer period of time, CSR is growing as a marketing and promotions strategy that helps the bank market and sell both themselves and their product (Bardos, Ertugrul, & Gao, 2020). It is challenging for academics and researchers to conceptualize CSR in a way that is specific to a given scenario because the CSR philosophies encompass so many distinct notions. Thus, Georgiadou (2022) provided a multi-dimensional architecture that takes into account the various related and important participants of community, such as customers, vendors, and other sectors that fall within the purview of corporate sustainability. Additionally, in order to excel in CSR, there is a need to have enough resources so that at the very least the financial needs of the donation or investment are met. When figuring out how to handle welfare responsibilities, the goal should be to protect the environment, especially when the environment is uncertain or when businesses produce at the expense of the environment (Hobeika, Khelladi, & Orhan, 2022). This will prevent not only from adding to the already existing ecological burden, but also from adding new ones. As a result, in such a situation, there is a need for investments or finance that is made in accordance with environmental or sustainable standards.

The phrase "Green Finance," which is also known as "Green Investments" in academic circles, literature, and research, has a variety of meanings and is still developing (Irfan, Razzaq, Sharif, & Yang, 2022). According to Zhang et al. (2021) an emerging idea known as "green finance" (GF) is a new financial instrument that combines economic gains with environmental protection. Green Finance's ultimate goal is to coordinate the financial and monetary resources and activities that enable sustainable development to be accomplished with the least amount of harm to the environment and habitat (He, Liu, Zhong, Wang, & Xia, 2019; Nawaz, Hussain, & Hussain, 2021). Additionally, it is also being seen as a phenomenon where financial principles are combined with those that support and protect the environment while also promoting economic growth by facilitating activities and initiatives that raise the sustainability level. Such beginning of activities or initiatives can involve, but not be limited to, waste management, natural preservation and conservation, mitigating climate change, funding for renewable energy projects, and so forth (Abid, Ceci, Ahmad, & Aftab, 2022).

However, as the primary provider of funds, the banking sector has a special responsibility to uphold sustainability norms. Therefore, it is imperative that they provide consumers with access to financing for projects that improve social sustainability and incorporate economic principles, as well as direct financial resources to green investments (Cao et al., 2022). According to the findings, green financing and its associated dimensions improve many facets of corporate social responsibility (CSR), including employees, consumers, communities, legal and ethical issues, and stakeholders (social, economic, and environmental). In addition, studies have shown that CSR practices significantly improve business outcomes such as revenue and profit (Nyame-Asiamah & Ghulam, 2019). Despite the fact that numerous studies have analyzed a company's financial and environmental performance through CSR, academics continue to focus on this connection due to the contradictory results. Sri Lanka (Shaumya & Arulrajah, 2017), India (Reddy & Kala, 2018), Nepal (Haryanto, 2018), and Pakistan (Sadiq et al., 2021) are just a few of the countries where researchers have examined the impact of green banking practices on banks' environmental performance. Several studies have examined the CSR and corporate performance in addition to the GF and sustainability performance of financial institutions in Pakistan (Mumtaz & Smith, 2019). Nonetheless, there is scant research into the effects of the green finance dimensions of social, economic, and environmental responsibility on corporate CSR frameworks.

In light of this, the current research looks into whether or not green financing, which takes into account social, environmental, and economic factors, can aid the banking sector in meeting, exceeding, and improving its CSR goals. The current study makes numerous important contributions to this area. To begin, this research is the first of its kind to focus on Pakistan and to specifically investigate the connections between green finance and CSR goals. To a lesser extent, we contribute to the existing literature by analyzing this connection across major provinces in Pakistan. The findings of this study can help governments and policymakers better understand the interplay between green financing and CSR aims, leading to better policies in the future. The study's other sections are as follows: an introduction to the research purpose, a discussion of relevant literature, a description of the study's methods, results and implications, and a discussion of statistical estimation.

## 2. Literature Review

The legitimacy hypothesis says that for a business to stay legitimate, it must make sure that its actions are within socially accepted limits (Deegan, 2014). This theory of legitimacy is mostly about how businesses connect with the communities around them. According to the legitimacy theory, companies share information about their social responsibility projects so that their stakeholder groups can make sense of what they are doing. Legitimacy theory is based on the idea that businesses and society have come to an agreement. Green finance helps businesses cut down on the damage they do to the environment by doing things like using less energy and putting out less carbon dioxide. The legitimacy theory says that the limits of CSR activities are set by the interaction between society's expectations (as shown by the most popular social ideologies), managers' ideas about what legitimate society's expectations are, and how companies act (Burlea & Popa, 2013). So, the legitimacy principle says that businesses should use green finance, social, and environmental projects to build, keep, or regain credibility.

### 2.1 Corporate Social Responsibility (CSR)

The origins of CSR are unknown, despite the fact that it has been present for some decades. It did not really catch on until the 1950s, but scholars and businesses have become interested in it in recent years. Most people think that CSR theories, concepts, and ideas came from the West because that region has strong organizational frameworks and effective and fair regulations (Tamvada, 2020). Both academics and business people talk a lot about the idea of CSR, but no one has yet agreed on a clear definition of the term. There are many different definitions of CSR because there aren't enough different theoretical boundaries and ways to think about it. The unified CSR standard definitions, on the other hand, tell businesses to make their projects fit with social norms (Cho, Chung, & Young, 2019). Carroll (1979) says that corporate social responsibility (CSR) is a company's duty to follow all laws, rules, standards, codes of conduct, and norms of behavior put in place by society as a whole. Corporate social responsibility (CSR) is also defined as a company's promise to treat people and the environment with respect. Corporate social responsibility (CSR) is the practice of running a business in a way that is honest, considerate of others, and good for the growth of the local community (Hur, Moon, & Kim, 2020). One of the most important corporate social responsibility projects for financial institutions is to reduce their carbon footprints. Volunteering and helping businesses that are good for the environment are two more important CSR activities. Corporate social responsibility projects, or CSR initiatives, are projects that businesses do for the good of society and the environment, with the goal of improving the organization's performance and making sure it will be around for a long time (Kucharska & Kowalczyk, 2019).

### 2.2 Green Finance (GF) and its Dimensions

Green finance is a broad term that includes terms like sustainable finance, environmental finance, climate financing, and green investment (Hafner, Jones, Anger-Kraavi, & Pohl, 2020). Akomea-Frimpong, Adeabah, Ofosu, and Tenakwah (2021) says that the term "green finance" refers to what banks and other financial institutions do and invest in to help create a low-carbon economy. "Green finance" is the process of putting money and other resources from the financial sector into projects that are good for the environment. Khan, Riaz, Ahmed, and Saeed (2022) says that green finance is social inclusion, corporate governance, clean energy, green building, environmental preservation, and clean energy across the economy are all things that should get money to be "green." Since it started, GF has had a big impact on how international organizations and national governments talk about economic issues. Green Finance (GF) is new financial models that put a high priority on investments that are safe for the environment and help the economy grow (Al-Badran, 2022).

It has also gotten more attention from academics, scholars, researchers, and professionals (Abid et al., 2022). Many people agree that Global Financial Stability (GFS) is an important part of banking that has a big impact on the growth of a strong economy and prosperous markets (Falcone & Sica, 2019). Environmental, Social, and Governance (ESG) criteria are important for long-term financial stability and economic growth. GF is a comprehensive strategy that includes many activities to improve the economic, social, and environmental performance of the monetary system. Some of GF's most important projects are green bonds, microfinancing, sustainable funds, impact investments, active ownership, credits for environmental sustainability, and the reform of whole financial systems (Broadstock, Chan, Cheng, & Wang, 2021). According to the EU High-Level Expert Group on Sustainable Finance, the Global Financial System is a financial framework that focuses on environmental sustainability, sustainable housing, pensions, infrastructure upgrades, technological advances, lowering carbon emissions, and other long-term scientific and societal challenges. This definition was provided by the EU High-Level Expert Group on Sustainable Finance (Dikau & Volz, 2018).

GF has also been called the economic, social, and environmental effects of the growth of financial services. This has a big impact on the growth of a sustainable economy and company. The "Triple Bottom Line" (or "GF") is a way of running a business that balances making money with doing good for society and the environment (Raberto, Ozel, Ponta, Teglio, & Cincotti, 2019). GF parameters are usually put into different groups by most studies. However, not much research has been done on how GF's social, economic, and environmental effects on the banking industry are linked. Recently, Zhang et al. (2021) looked into the growth of GF in the service sector of Bangladesh, focusing on PCBs. They concluded that service providers had sufficient knowledge, perspectives, and understanding of the critical components of GF and green financing to successfully implement GF in Pakistan, which would aid the country's long-term eco-development. The report also highlighted key areas where financial institutions might obtain green capital, including waste management, the expansion of the environmental industry, energy production, fuel efficiency, renewable fuels, and other sectors.

## 2.3 Green Finance for Sustainable Development

The process of adjusting the current company model to the fast shifting political, social, financial, and economic environments is known as sustainability. In order to improve people's lives and fortify organizations’ ties to the environment, this is done in order to ensure that the limited financial, physical, and human resources are used wisely and effectively. To get the Asian economies to grow in a way that is sustainable, investments need to move away from industries that use a lot of fossil fuels, natural resources, and greenhouse gases (Volz, 2018). The financial sector needs to lead the way for this transition to sustainability to be a success. "Green finance" refers to "any type of investment or loan that takes into account the effects on the environment and makes the environment more sustainable". Insurance services that cover environmental and climatic risks and sustainable banking, where investment and loan decisions are based on ecological screenings and vulnerability assessments to fulfill sustainability criteria, are important components of green finance. Finding a middle ground between fast economic growth and progress that is good for the environment is a global challenge. Still, this is a big problem for most emerging Asian economies because their growth strategies have relied so much on resources and carbon (Mumtaz & Smith, 2019). While most Asian economies have reduced their carbon intensity of economic output significantly over the past two decades, some have not. In addition, several Asian countries are highly susceptible to climate-change-related dangers. In the previous few decades, climate change has had a devastating impact on Burma, Dhaka, Syria, and Bangkok (Mohd & Kaushal, 2018).

## 2.4 The CSR objectives and Green Finance's Economic Factor

CSR has rapidly become a standard in its field as a result of its shown capacity to improve a company's bottom line, set it apart from its rivals, and heighten the value it is considered to hold in the eyes of consumers. Despite its ability to assist businesses in improving both their operational and financial success, corporate social responsibility (CSR) has the paradoxical effect of leading to more contributions to CSR when those businesses' financial positions improve (Wang, Shahid, Binh An, Shahzad, & Abdul-Samad, 2022). This is true despite the fact that CSR can help businesses. On the other hand, we could argue that the five sub-categories of CSR that are related or attached to companies as shareholders are what encourages an external review of a company's adoption and acknowledgment of CSR in order to push it to invest more and more (Gillan, Koch, & Starks, 2021). This is because these sub-categories are related or attached to companies as shareholders. The government, other groups, the public, customers, and workers are some examples of these stakeholders.

Economies of scale, productivity, and the financial ramifications of sustainability and the health of environmental philosophy are some of the topics that are discussed in green financing's economic practices. Other topics that are discussed include the well-being of environmental philosophy. Especially in the banking industry, where day-to-day operations are centered on economic and financial activities, this component is considered to be the most vital and significant of all of them (Zhang et al., 2021). Green funding ensures that the environment will be preserved and protected by providing financial assistance to projects that promote the growth of clean and environmentally friendly technology and development, such as waste management, solar energy, and renewable energy (Abid et al., 2022). These products enhance the reputations of the banks in the market and make them more competitive, which in turn results in an increase in the amount of lending that is done (Mumtaz & Smith, 2019).

Cai and Song (2022) claimed that those with expertise in finance know very little about environmentally friendly financing and have little experience working in the industry. When circumstances are good, however, the car industry makes investments in program that increase salaries, improve consumer experiences, foster social cohesion, and assist those who are less fortunate. The economic factor of green finance is the most significant driver of obtaining long-term, reliable funding in the services industry, and as a result, it has an effect on the businesses' ability to be profitable over the long term (Ziolo, Bak, & Cheba, 2021). In order for businesses in the chemical industry to achieve financial success, enhance their standing in the community, and boost their output, the chemical industry must stop ignoring ecological concerns and start taking responsibility for the environment (Fallah Shayan, Mohabbati-Kalejahi, Alavi, & Zahed, 2022). A competitive advantage can be gained for financial organizations by putting environmental policies front and center. Reddy and Kala (2018) provided a detailed account of the several eco- friendly initiatives that financial institutions have implemented to lessen their negative effects on the environment. Recent studies have shown that the financial benefits provided by GF have a considerable influence in a good way on the long-term effectiveness of financial institutions' green initiatives (Zhang et al., 2021). This indicates how the economic aspect of GF greatly improves the environmental performance of the bank. This is due to the fact that it deals with issues that promote competitive advantage, government assistance for the financial effects of climate change, and sustainable economic growth (Mohd & Kaushal, 2018). It has been found that those working in accounting have the least knowledge and awareness of green financing out of any other professional field. On the other hand, when the banks' financial situations are healthy, it encourages them to invest in other projects such as increasing wages for employees, providing the highest level of service to customers, taking part in social and cultural events, and providing assistance to the most vulnerable members of society (Shaumya & Arulrajah, 2017). In light of these considerations, we would like to provide the following hypotheses:

$H_1$: CSR objectives are substantially influenced by the Economic Dimension of Green Finance.

## 2.5 The CSR Objectives and Green Finance's Environmental Factor

Green finance is based on the environment dimension, which is very similar to environmental sustainability in a lot of ways (Mumtaz & Smith, 2019). With this information, we can do a better job of getting rid of greenhouse gases, such as carbon emissions and footprints. We can also do a better job of dealing with trash and encourage people to use less (Ashraf, Afshan, & Sahibzada, 2021). Green finance depends a lot on environmental practices because they are related to the topic at hand and fit with the idea of a sustainable environment. Given how important CSR is to the long-term health of the environment, it makes sense that the company's green money will go toward improving CSR (Mostepaniuk, Nasr, Awwad, Hamdan, & Aljuhmani, 2022). When these strategies are used every day, they help a company be more successful financially, productively, and, most importantly, in the long-run. Since corporate social responsibility (CSR) and protecting the environment go hand in hand, CSR investments are a natural fit for a company's green financing.

A GF is a way to spend money in order to help the environment (Landi, Iandolo, Renzi, & Rey, 2022). Sustainable finance includes the environmental, social, and economic aspects of sustainable development. Research by Zheng et al. (2021) shows that the environmental part of green finance has a positive or direct impact on how well financial institutions do in terms of sustainability. It hasbeen found that GF has a number of benefits for the environment, such as less energy use andcarbon emissions from banking activities. This makes the organization as a completely more environmentally sustainable. Based on what researcher found that the environmental part of GF is important for improving the way banks treat the environment because it has a direct linkto the sustainability of the organization (Nyame-Asiamah & Ghulam, 2019). Because of this,we came up with the following hypothesis.

$H_2$: CSR objectives are substantially influenced by the Environment Dimension of Green Finance.

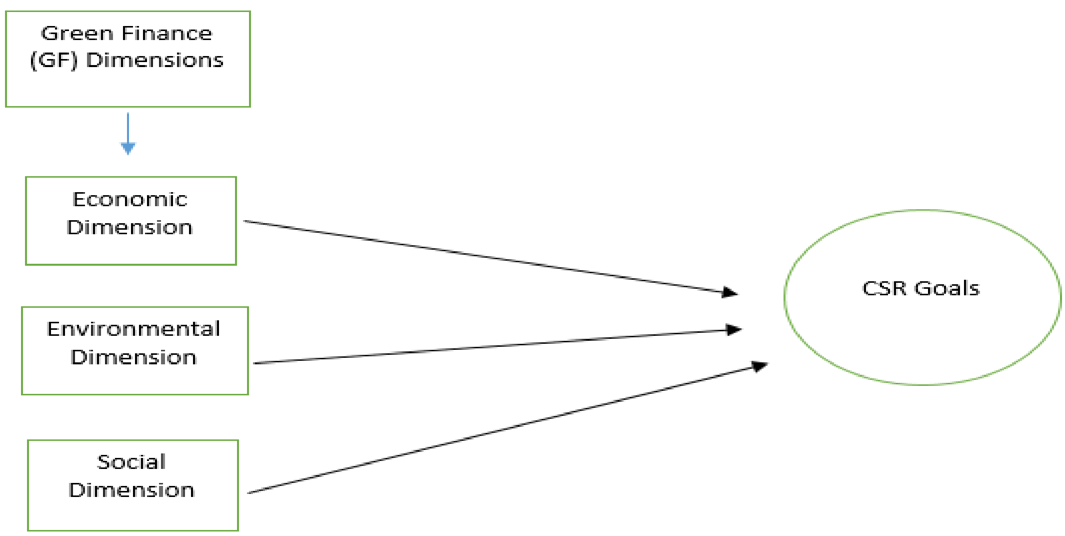
### 2.6 The CSR Objectives and Green Finance's Social Factor

The social aspect of green funding includes the rights and responsibilities of stakeholders, the happiness of consumers, the safety of workers, and the general well-being (Alhammadi). In this dimension, a business's operational and financial success can be improved by making its brand more valuable, marketable, and trusted by customers. When comparing the two, CSR is seen as the closer relative because it has similar goals and ideas (Lee, 2020). Some of these features are making sure that all employees are paid fairly and without discrimination, having very happy customers, caring about your stakeholders, giving back to the community, and following all laws and rules. All of these are part of CSR. So, it's likely that businesses, especially banks, will increase the amount of green money they give to help solve social problems, which will help them reach their CSR goals (Cai & Song, 2022). Researcher said in the study because there are five sub-dimensions of CSR that are linked to or associated with organizations as stakeholders in the banking sector (Mostepaniuk et al., 2022). Some examples are the company's employees, customers, society and community, shareholders, and following the law and doing the right thing. Businesses that do eco-innovation and banks that give out green loans usually do so because they want to help the environment as part of their corporate social responsibility (Gillan et al., 2021).

The main things banks do are financial and credit transactions, which have little direct effect on the natural world. Green bonds help businesses meet their social responsibilities to the community by making financing cheaper and making better use of resources (Akomea-Frimpong et al., 2021). The social component of GF was found to have a positive influence, as determined by Zhang et al. (2021) investigation into the factors that affect the degree to which financial institutions in Bangladesh adhere to sustainability best practices. There are many benefits to society when banks donate money to eco-friendly projects. For example, the community can be involved in development programs, employees can get rewards, and the bank's name can become better known (Reddy & Kala, 2018). Because of this, the hypothesis has been put forward that

$H_3$: CSR objectives are substantially influenced by the Social Dimension of Green Finance.

**Figure 1: Theoretical Framework**



# 3. Research Methodology & Research Design

This article's goal is to look into how green finance (GF) and its many components can help businesses meet their CSR goals, including those in the areas of society, the economy, and the environment. In order to test the aforementioned research questions and hypotheses, the present study employed a quantitative methodology based on a survey.

## 3.1 Variable and Instrument

Due to the lack of information on the study's target population, a non-probabilistic convenience sampling approach was utilized to collect data for the study. Specifically, we used a standardized questionnaire to collect the primary data. In order to quantify the GF aspects (social, economic, and environmental) and CSR behaviors, 16 items were added to the variables (which were derived from prior studies). The survey covers all three aspects of GF (society, economy, and environment) and CSR (corporate social responsibility) through its questions. The three social, five economic, and three environmental factors of GF were modified in light of the preceding research (Raihan, 2019). We adapted the five criteria for measuring CSR from the work of (Saeidi, Robles, Saeidi, & Zamora, 2021). Outside of the demographic questions, the entire survey was graded on a Likert scale ranging from 1 to 5. (Where 1 represents strongly disagree, 2 represents disagree, 3 represents neither disagree nor agree, 4 represents agree, and 5 represents strongly agree).

## 3.2 Sample and Data Collection

With the help of a well-designed questionnaire structure, the primary data was gathered from 50 workers of commercial banks, including management, administrative assistants, employees, senior staff, and junior officers. There were 320 questionnaires distributed in all, however 50 of them were rejected because of missing information. The ultimate sample size is 270, which indicates an effective rate of 83.08%, above Murphy's estimated response rate of 25–30%. The information was gathered from the sample banks in Punjab, Pakistan, during October and December of 2022. Men made up 75.3% of the respondents, while women made up 24.7%. Approximately 65% of responders are between the ages of 26 and 35, and only 6.3% are over the age of 55. In addition, 15.2% had a higher secondary certificate, 27.6% had an undergraduate degree, and 48.5% had a master's degree.

## 3.3 Data Analysis Techniques

Confirmatory factor analysis (CFA) and structural equation modelling (SEM) were utilized in the study to examine the collected primary data. The validity of the scale, according to Kretzschmar and Gignac (2019), is crucial for the instrument employed in different cultural contexts. As a result, the CFA model was utilized to validate the research instrument and assess the model's overall fit, reliability, and convergent and discriminant validity based on prior research. The hypothesized hypotheses were then tested using SEM.

## 3.4 Ethical Consideration

The study's goals have been explained to everyone who could take part. More importantly, get the participants' permission before starting to collect data. Their identities and the details of the groups to which they belong have been kept completely secret. Also, the privacy and confidentiality policies of each company had to be taken into account. Before the measurements for this study were chosen, the author gave their approval. There's no question that the researcher did all of these things very carefully.

# 4. Result and Analysis

The first part of the study is the descriptive analysis and correlation studies of the selected variables. This descriptive analysis shows that the means value is one of the most critical factors determining environmental performance through the GF's social, economic and environmental factors. Then the skewness and kurtosis values are considered as one of the values that are very important in this regard. The questionnaire that was raised for the study is given in table 1.

The table 2 shows that the skewness and kurtosis values are both lesser than the cut-off values, ±3 and ±10. The correlation analysis was done, demonstrating a very weak correlation between our research variables, while there is no multicollinearity in these variables.

**Table 1: Questionnaire model**

| | | |
|---|---|---|
| | | **Social dimensions** |
| | | The level of the agreement is indicated as GF(1= strongly Disagree, 5 = Strongly agree) |
| **Sr#** | **SD1** | To engage the local community of that area in the developmental program |
| **1** | **SD2** | To facilitate the employees with many essential benefits such as the facility of health and safety |
| **2** | **SD3** | To increase the awareness related to the brand and make such changes that the community will trust the firm. The other thing is that the increment in the image of the institutions that are involved in the banking |
| | | **Economic dimension** |
| **3** | **ED1** | Production of more benefits related to the economics |
| **4** | **ED2** | Creation of a more competitive environment and also Advantages |
| **5** | **ED3** | There should also be an increase in revenues and saving operating costs |
| **6** | **ED4** | There should also be an improvement in the assets that are present before and an addition to the capital |
| **7** | **ED5** | The overall risk should be reduced |
| | | **Environmental dimension** |
| **8** | **END1** | Reduction in the energy resources from the baking Activities |
| **9** | **END2** | There should also be a reduction in the carbon emission by banking activities |
| **10** | **END3** | Requirements of services and products |
| | | **CSR practices** |
| **11** | **CSR1** | CSR training that is related to the ethics |
| **12** | **CSR2** | CSR training that is related to the legal values |
| **13** | **CSR3** | CSR training that is related to the economic values |
| **14** | **CSR4** | CSR training that is related to the discretionary |

**Table 2: Descriptive analysis**

| Sr# | Variables | Mean | SD | Skewness | Kurtosis | SD | ED | END | CSR | EP |
|---|---|---|---|---|---|---|---|---|---|---|
| **1** | **SD** | 3.991 | 0.46 | -1.133 | 2.912 | 1 | - | - | - | - |
| **2** | **ED** | 3.963 | 0.47 | -0.699 | 0.912 | 0.415 | 1 | - | - | - |
| **3** | **END** | 4.11 | 0.461 | -0.492 | 0.311 | 0.316 | 0.299 | 1 | - | - |
| **4** | **CSR** | 3.91 | 0.672 | -1.194 | 1.994 | 0.399 | 0.412 | 0.159 | 1 | - |

### 4.1 Confirmatory Factor Analysis

For the measurement of the study, confirmatory factor analysis is used. To check the study's validity and variability, Cronbach s Alpha (CA) and composite reliability (CR) values were used. The range of the CA values is from 0.711-0.837, considered the optimized value, but it exceeds the standard value of 0.70. In the same way, the range of the CR values is 0.753-0.833, and it is also higher than that of the standard value, which is 0.7. The validity is also analyzed from these values of the CA and CR, so the measuring parameters are optimized and acceptable. For the CFA, the factor loading that is used to validate the proposed is listed in the above table. By CFA analysis, the standard factor loadings are variable, and their range is 0.631-0.826, which is also greater than our cut-off value, which is 0.5. While the AVE values are also measured, their range is between 0.431-0.558, which is also more significant than the standard value of 0.5.

The convergent validity of the findings is believed to be positive and reasonable. After that, the Fornell-Larcker criteria and the Heterotrait-Monotraits ratio were used to estimate the discriminant validity. To determine the discriminant validity, the value of the square root AVE must be greater than that of the correlation with any other variable. From table 2, it is observed that each of the factors decreases the square of the inter-factor correlation. So by this, the discriminant validity was observed in all variables. To increase the robustness of this study, the values of the HTMT are also studied because of its accuracy more than that of the Fornell- Larcker criteria. Fornell and Larcker (1981) The value for this that was recorded is much lesser than that of the standard value of 0.9, which proved that there is no discriminant validity issue in our research. So, by the above results, a high level of discriminant validity was observed in the factors mentioned above (Henseler, Ringle, & Sarstedt, 2015).

The variance inflation factor is also calculated, which has the range of 1.194-1.451, and it satisfies the standard value of about 5. So, by this analysis, it is estimated that the multicollinearity is not creating any issue the in the next analysis. The variance inflation factor VIF is considered the main factor to analyze the multicollinearity in the given variables; it evaluated that our study's variable is independent. These findings have revealed that the used model best fits the study as the values are within acceptable limits. Then the values of the statistical factors were calculated.

**Table 3: Statistical factorsOutcomes from the structural Equation**

| p-value | Chi-square/df | RMR | GFI | AGFI | CFI | IFI | TLI | RMSEA |
|---|---|---|---|---|---|---|---|---|
| 0.00 | 1.95 | 0.025 | 0.921 | 0.914 | 0.945 | 0.951 | 0.931 | 0.049 |

The impact of the relationship between the variables and the constructs was also studied. By the literature, it is estimated that CSR has three main dimensions of GF, which include social, economic, and environmental, and they positively affect the bank's performance. The structural model validity was also studied, resulting in the value being in the limit.

**Table 4: Hypothesis evaluation**

| Sr# | The hypothesis of the research | Estimates | Standard Error | t-test value |
|---|---|---|---|---|
| 1 | H1: ED → CSR | 0.189 | 0.032 | 3.22 |
| 2 | H2: ED → CSR | 0.451 | 0.049 | 6.11 |
| 3 | H3: SD → CSR | 0.136 | 0.051 | 2.45 |

By table 4, it is observed that economic dimension of GF has a positive impact on CSR goals, so hypothesis 1 is supported. Hypothesis 2 is also supported by the above table, which proves that the GF's environment dimension variable positively impacts the bank's performance. Furthermore, by findings, social aspects of the GF positively affect the social dimension, so hypothesis 3 is also supported.

## 5. Discussion and Findings

Before getting into how green finance affects corporate social responsibility, we looked at the three main parts of this field. It is argued that the economic dimension is a factor in this relationship because there is a strong and positive link between the economic dimension and CSR toward employees. So, if green funding could be increased by just 1%, it could increase CSR among workers by 18.9%. CSR toward employees can be improved by putting more money into green finance and keeping an eye on the economy (Fallah Shayan et al., 2022). The environmental aspect is seen as a factor, and it has been found to have a positive and significant link with CSR toward employees. So, if the environmental part of the green finance sector grew by 1%, it could lead to a 45.1% increase in corporate social responsibility for workers. Sustainable businesses are ones that do well now and will continue to do well in the future while also helping people and following environmental rules. If an organization does not deal with environmental and social risks, it will become less resilient, which could threaten its very survival. The more money that goes into green finance, which deals with environmental problems, the better CSR employers will be able to offer their employees (Zhang et al., 2021). Financial institutions may expand the market by educating customers about the benefits of sustainable energy, developing new financial products, reducing the cost of funding for low carbon initiatives, and offering more advantageous financing terms. However, it was shown that the social component had a strong and positive association with CSR toward employees; hence, it is included as a contributing factor. As a result, a 1% increase in the social component of environmentally friendly finance can result in a 13.6 % rise in corporate social responsibility for employees. That is, corporate social responsibility (CSR) toward employees will get betteras more money is put into green finance that helps solve social problems (Mostepaniuk et al., 2022). Raising wages to a living wage, getting rid of discrimination based on gender, caste, or race, and helping with training and development for environmental conservation so that workers learn skills that will help the organizations (like banks) in the long run are all ways that businesses could be improved.

## 6. Conclusion and recommendations

The goal of this research is to answer questions about these three parts of green finance and how they relate to the CSR goals of the banking sector. A quantitative research method was used to reach the goal mentioned above. The data came from people who used financial services. It was then analyzed statistically with PLS-SEM. The research showed that all three types of green funding were better than any of the CSR-sub dimensions and contributed to their success. Based on the results, it is suggested that businesses and the banking industry specifically increase their CSR budgets to better meet the needs of everyone in society.

The research points to a number of ways to learn more about how financial institutions can improve their sustainability and follow environmental rules, such as those about how to manage and reduce pollution. In addition, the empirical findings of the study indicate to a variety of practical implications for academics, financial firms, management, administrations, and policymakers who are interested in convincing financial firms to support ecological sustainability. The results showed that the CSR activities of Pakistani banks had a big effect on the creation of initiatives that are good for the environment. In light of the study's findings, the authors say that lawmakers and top executives in relevant industries should give more money to social responsibility, train their employees to think more sustainably, and change how they deal with environmental issues. For instance, the Pakistani Bank, which is the state's central bank and the administration could support long-term development and environmental sustainability by compensating or appreciating capital markets that exactly adhere ethical business practices and initiatives. In this way, the Pakistani Bank would fulfill its role as the country's central bank. Managers in the industry shouldn't have any trouble using this method, which can help them do a better job of protecting the environment (Mohd & Kaushal, 2018).

As green money has grown and been recognized by scientists as a possible way to make the world more sustainable, it has become clear that it needs to be regulated by the law. CSR and green funding may also encourage the growth of new movements and the entry of new companies into the market by sending a message. So, it's important to make sure that CSR- related actions are always mentioned and promoted in financial reports so that other companies will be inspired to do the same (He et al., 2019). Lastly, for the sake of their customers, financial institutions should offer better terms for projects that use clean and green technology, are good for the environment, etc.

The biggest problem with this study is that it can only be used to talk about the banking industry in Pakistan because it only used data from that country. The theory needs to be proven with data from the financial sectors of more emerging economies in future studies. Because green finance acts as an intermediary, future research can also look at how other factors, such as green banking practices, affect how well the environment does. Another problem with this study is that it only looked at CSR efforts, green finance, and environment efficacy from the point of view of relevant stakeholders. To learn more about how CSR and green finance affect the overall effectiveness of financial firms in other developing countries, it may be necessary to do more research that focuses on customers and suppliers (Sadiq et al., 2021).

## References


Abid, N., Ceci, F., Ahmad, F., & Aftab, J. (2022). Financial Development and Green Innovation, the Ultimate Solutions to an Environmentally Sustainable Society: Evidence from Leading Economies. *Journal of Cleaner Production, 369*, 133223. doi:10.1016/j.jclepro.2022.133223

Akomea-Frimpong, I., Adeabah, D., Ofosu, D., & Tenakwah, E. J. (2021). A Review of Studies on Green Finance of Banks, Research Gaps and Future Directions. *Journal of Sustainable Finance & Investment*, 1-24. doi:10.1080/20430795.2020.1870202

Al-Badran, O. R. A. (2022). Using Green Finance for Attaining Sustainability: A Comparative Study Of The Iraqi Private Banks. *American Journal of Economics and Business Management, 5*(1), 184-194.

Ashraf, Z., Afshan, G., & Sahibzada, U. F. (2021). Unpacking Strategic Corporate Social Responsibility in the Time of Crisis: A Critical Review. *Journal of Global Responsibility, 13*(2), 127-156. doi:10.1108/JGR-03-2021-0030

Bardos, K. S., Ertugrul, M., & Gao, L. S. (2020). Corporate Social Responsibility, Product Market Perception, and Firm Value. *Journal of Corporate Finance, 62*, 101588. doi:10.1016/j.jcorpfin.2020.101588

Broadstock, D. C., Chan, K., Cheng, L. T., & Wang, X. (2021). The Role of ESG Performance During Times of Financial Crisis: Evidence from COVID-19 in China. *Finance research letters, 38*, 101716. doi:10.1016/j.frl.2020.101716
Burlea, A., & Popa, I. (2013). Legitimacy Theory in Encyclopedia of Corporate Social Responsibility. In (pp. 1579–1584): Springer.
Cai, X., & Song, X. (2022). Towards Sustainable Environment: Unleashing the Mechanism between Green Finance and Corporate Social Responsibility. *Energy & Environment*, 0958305X221133258. doi:10.1177/0958305X221133258
Cao, J., Law, S. H., Samad, A. R. B. A., Mohamad, W. N. B. W., Wang, J., & Yang, X. (2022). Effect of Financial Development and Technological Innovation on Green Growth—Analysis based on Spatial Durbin Model. *Journal of Cleaner Production, 365*, 132865. doi:10.1016/j.jclepro.2022.132865
Carroll, A. B. (1979). A Three-Dimensional Conceptual Model of Corporate Performance. *Academy of Management Review, 4*(4), 497-505. doi:10.5465/amr.1979.4498296
Cho, S. J., Chung, C. Y., & Young, J. (2019). Study on the Relationship between CSR and Financial Performance. *Sustainability, 11*(2), 343. doi:10.3390/su11020343
Deegan, C. (2014). *An Overview of Legitimacy Theory as Applied within the Social and Environmental Accounting Literature* (2 ed.).
Dikau, S., & Volz, U. (2018). Central Banking, Climate Change and Green Finance.
Falcone, P. M., & Sica, E. (2019). Assessing the Opportunities and Challenges of Green Finance in Italy: An Analysis of the Biomass Production Sector. *Sustainability, 11*(2), 517. doi:10.3390/su11020517
Fallah Shayan, N., Mohabbati-Kalejahi, N., Alavi, S., & Zahed, M. A. (2022). Sustainable Development Goals (SDGs) as a Framework for Corporate Social Responsibility (CSR). *Sustainability, 14*(3), 1222. doi:10.3390/su14031222
Fornell, C., & Larcker, D. F. (1981). Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics. In: Sage Publications Sage CA: Los Angeles, CA.
Georgiadou, E. (2022). Communicating Customer-CSR Expectations on Corporate Websites: an Analysis of the Banking Industry in the United Arab Emirates. *Corporate Communications: An International Journal, 27*(4), 654-673. doi:10.1108/CCIJ-08-2021-0083
Gillan, S. L., Koch, A., & Starks, L. T. (2021). Firms and Social Responsibility: A Review of ESG and CSR Research in Corporate Finance. *Journal of Corporate Finance, 66*, 101889. doi:10.1016/j.jcorpfin.2021.101889
Hafner, S., Jones, A., Anger-Kraavi, A., & Pohl, J. (2020). Closing the Green Finance Gap–A Systems Perspective. *Environmental Innovation and Societal Transitions, 34*, 26-60. doi:10.1016/j.eist.2019.11.007
Haryanto, N. A. (2018). PEER REVIEW: The Relationship between Corporate Social Responsibility Disclosure and Earnings Management: Is it a Complement Mechanism or a Substitute Mechanism? *International Journal of Business Governance and Ethics, 13*(1). doi:10.1504/IJBGE.2018.095411
He, L., Liu, R., Zhong, Z., Wang, D., & Xia, Y. (2019). Can Green Financial Development Promote Renewable Energy Investment Efficiency? A Consideration of Bank Credit. *Renewable Energy, 143*, 974-984. doi:10.1016/j.renene.2019.05.059
Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A New Criterion for Assessing Discriminant Validity in Variance-Based Structural Equation Modeling. *Journal of the Academy of Marketing Science, 43*(1), 115-135. doi:10.1007/s11747-014-0403-8
Hobeika, J., Khelladi, I., & Orhan, M. A. (2022). Analyzing the Corporate Social Responsibility Perception from Customer Relationship Quality Perspective. An Application to the Retail Banking Sector. *Corporate Social Responsibility and Environmental Management, 29*(6), 2053-2064. doi:10.1002/csr.2301
Hur, W. M., Moon, T. W., & Kim, H. (2020). When and How Does Customer Engagement in CSR Initiatives Lead to Greater CSR Participation? The Role of CSR Credibility and Customer–Company Identification. *Corporate Social Responsibility and Environmental Management, 27*(4), 1878-1891. doi:10.1002/csr.1933
Irfan, M., Razzaq, A., Sharif, A., & Yang, X. (2022). Influence Mechanism between Green Finance and Green Innovation: Exploring Regional Policy Intervention Effects in China. *Technological Forecasting and Social Change, 182*, 121882. doi:10.1016/j.techfore.2022.121882

Khan, M. A., Riaz, H., Ahmed, M., & Saeed, A. (2022). Does Green Finance Really Deliver What is Expected? An Empirical Perspective. *Borsa Istanbul Review, 22*(3), 586-593. doi:10.1016/j.bir.2021.07.006

Kretzschmar, A., & Gignac, G. E. (2019). At What Sample Size do Latent Variable Correlations Stabilize? *Journal of Research in Personality, 80*, 17-22. doi:10.1016/j.jrp.2019.03.007

Kucharska, W., & Kowalczyk, R. (2019). How to Achieve Sustainability?—Employee's Point of View on Company's Culture and CSR Practice. *Corporate Social Responsibility and Environmental Management, 26*(2), 453-467. doi:10.1002/csr.1696

Landi, G. C., Iandolo, F., Renzi, A., & Rey, A. (2022). Embedding Sustainability in Risk Management: The Impact of Environmental, Social, and Governance Ratings on Corporate Financial risk. *Corporate Social Responsibility and Environmental Management, 29*(4), 1096-1107. doi:10.1002/csr.2256

Lee, J. W. (2020). CSR impact on the Firm Market Value: Evidence from Tour and Travel Companies Listed on Chinese Stock Markets. *Journal of Asian Finance Economics and Business, 7*(7), 159-167. doi:10.13106/jafeb.2020.vol7.no7.159

Mohd, S., & Kaushal, V. K. (2018). Green Finance: A Step towards Sustainable Development. *MUDRA: Journal of Finance and Accounting, 5*(1), 59-74. doi:10.17492/mudra.v5i01.13036

Mostepaniuk, A., Nasr, E., Awwad, R. I., Hamdan, S., & Aljuhmani, H. Y. (2022). Managing a Relationship between Corporate Social Responsibility and Sustainability: A Systematic Review. *Sustainability, 14*(18), 11203. doi:10.3390/su141811203

Mumtaz, M. Z., & Smith, Z. A. (2019). Green Finance for Sustainable Development in Pakistan. *IPRI Journal, 19*(2), 1-34.

Nawaz, M. A., Hussain, M. S., & Hussain, A. (2021). The Effects of Green Financial Development on Economic Growth in Pakistan. *iRASD Journal of Economics, 3*(3), 281–292-281–292. doi:10.52131/joe.2021.0303.0044

Nyame-Asiamah, F., & Ghulam, S. (2019). The Relationship between CSR Activity and Sales Growth in the UK Retailing Sector. *Social Responsibility Journal, 16*(3), 387-401. doi:10.1108/SRJ-09-2018-0245

Raberto, M., Ozel, B., Ponta, L., Teglio, A., & Cincotti, S. (2019). From Financial Instability to Green Finance: the Role of Banking and Credit Market Regulation in the Eurace Model. *Journal of Evolutionary Economics, 29*(1), 429-465. doi:10.1007/s00191-018-0568-2

Raihan, M. Z. (2019). Sustainable Finance for Growth and Development of Banking Industry in Bangladesh: An Equity Perspective. *MIST International Journal of Science and Technology, 7*(1).

Reddy, R., & Kala, K. (2018). Coporate Social Responsibility- A Conceptual Framework. *CLEAR International Journal of Research in Commerce & Management, 9*(2).

Sadiq, M., Nonthapot, S., Mohamad, S., Keong, O. C., Ehsanullah, S., & Iqbal, N. (2021). Does Green Finance Matter for Sustainable Entrepreneurship and Environmental Corporate Social Responsibility During COVID-19? *China Finance Review International, 10*(2), 317-333. doi:10.1108/CFRI-02-2021-0038

Saeidi, P., Robles, L. A. A., Saeidi, S. P., & Zamora, M. I. V. (2021). How Does Organizational Leadership Contribute to the Firm performance through Social Responsibility Strategies? *Heliyon, 7*(7), e07672. doi:10.1016/j.heliyon.2021.e07672

Shaumya, K., & Arulrajah, A. (2017). *Impacts of Green Human Resource Management and Electronic-Human Resource Management on Green Banking.* Paper presented at the Proceedings of Fourteenth International Conference on Business Management (ICBM).

Sinha, A., Mishra, S., Sharif, A., & Yarovaya, L. (2021). Does Green Financing Help to Improve Environmental & Social responsibility? Designing SDG Framework through Advanced Quantile Modelling. *Journal of Environmental Management, 292*, 112751. doi:10.1016/j.jenvman.2021.112751

Tamvada, M. (2020). Corporate Social Responsibility and Accountability: A New Theoretical Foundation for Regulating CSR. *International Journal of Corporate Social Responsibility, 5*(1), 1-14. doi:10.1186/s40991-019-0045-8

Velte, P. (2022). Meta-Analyses on Corporate Social Responsibility (CSR): A Literature Review. *Management Review Quarterly, 72*(3), 627-675. doi:10.1007/s11301-021-00211-2

Volz, U. (2018). Fostering Green Finance for Sustainable Development in Asia. In *Routledge handbook of banking and finance in Asia* (1 ed., pp. 488-504): Routledge.

Wang, Z., Shahid, M. S., Binh An, N., Shahzad, M., & Abdul-Samad, Z. (2022). Does Green Finance Facilitate Firms in Achieving Corporate Social Responsibility Goals? *Economic Research-Ekonomska Istraživanja*, 1-20. doi:10.1080/1331677X.2022.2027259

Zhang, D., Mohsin, M., Rasheed, A. K., Chang, Y., & Taghizadeh-Hesary, F. (2021). Public Spending and Green Economic Growth in BRI Region: Mediating Role of Green Finance. *Energy Policy, 153*, 112256. doi:10.1016/j.enpol.2021.112256
Zheng, B., Zhang, Q., Geng, G., Chen, C., Shi, Q., Cui, M., . . . He, K. (2021). Changes in China's Anthropogenic Emissions and Air Quality During the COVID-19 Pandemic in 2020. *Earth System Science Data, 13*(6), 2895-2907. doi:10.5194/essd-13-2895-2021, 2021.
Ziolo, M., Bak, I., & Cheba, K. (2021). The Role of Sustainable Finance in Achieving Sustainable Development Goals: Does it work? *Technological and Economic Development of Economy, 27*(1), 45-70. doi:10.3846/tede.2020.13863
Ziolo, M., Filipiak, B. Z., & Tundys, B. (2021). Relationships Between Banks' and Companies' Sustainable Business Models. In *Sustainability in Bank and Corporate Business Models* (pp. 211-265): Springer.