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The Impact of Corporate Social Responsibility (CSR) and Green Investments on Sustainable Performance: The Mediating Role of Firm Financial Performance

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Abstract: *Several academics have looked at the current and future paths of sustainable development through the lens of green investment and corporate social responsibility (CSR) investment. Few people have looked into the links between green investments, CSR investments, and long-term success. Most of these studies have been about how CSR affects a company's bottom line. Sustainable performance is founded on triple-bottom-line thinking, also known as the people-planet-profit axis. 130 manufacturing companies that have been registered on the Pakistan Stock Exchange between 2019 & 2021 made up the sample for this study. The analysis reveals that investments in CSR (corporate social responsibility) and environmental preservation boost financial and long-term sustainability. On the other hand, financial performance doesn't change much when it comes to sustainable performance. Additionally, the impact of green investments on sustainable performance is mediated by financial performance. However, CSR investment cannot be mediated by financial success.*

Key Words: CSR, Green Investment, Financial Performance, Sustainable Performance

JEL Classification:

Introduction

Recently, the majority of nations, particularly those that are still developing have placed a priority on economic development over environmental preservation. They are consequently forced to deal with issues like climate change, biodiversity loss, environmental degradation etc (Indriastuti & Chariri, 2021). Pakistan will be one of the most important economic powers in the 21st century. There is much room for economic growth and investment in the country. The environmental implications of climate change, however, are a challenge for Pakistan and many other emerging nations. They have devised several ways to deal with these problems and encourage sustainable growth, such as using "green investment" (Charirietal. 2018). In this way, financial institutions play an essential role by funding socially responsible and environmentally friendly projects such as waste management, green industrial development, fuel efficiency, and renewable technology. All of these projects improve a

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company's sustainability performance and the country's sustainability performance. Novitasari and Tarigan (2022) suggest a new financial tool they call "green finance" (GF) that puts protecting the environment first and also makes money.

On the other hand, corporate social responsibility (CSR) is seen as another effort that helps businesses grow and stay in business for the long term. The degree to which a business protects the environment minimizes waste, recycles, and producing few emissions can be used to assess its environmental performance (Dewi & Edward Narayana, 2020). This means that CSR and GF are essential tools for any business that wants to reduce its environmental impact. Academics have used CSR to measure how well a company has been doing for a long time. However, more research still needs to be conducted on how CSR and green finance practices affect the environment. Green finance also helps the economy, the environment, and sustainability in a big way. On the other hand, Endiana et al. (2020) looked at the role that green finance plays in getting, keeping, and growing CSR in the banking sector. Employees, customers, communities, legal and ethical concerns, and stakeholders can all benefit from green finance. Even though many studies have examined how CSR affects a company's bottom line, academics still look at how CSR is linked to environmental and social responsibility. Research into the impacts of environmentally friendly banking methods on financial institutions has been conducted not only in the United States but also in India (Risal & Joshi, 2018). Only a few studies have been done on CSR and firm sustainable performance in Pakistan (Alamgir&Nasir Uddin, 2017).

Academics have used CSR to evaluate an organization's performance for many years. However, there needs to be more attention paid to researching CSR and green finance methods in the area of environmental performance. Maintaining a company's credibility is essential to its survival. This has been emphasized by the finding of Mustafa et al. (2012), which suggests that a firm keeps its drive for legitimacy alive by trying to strike a balance between societal norms and corporate goals. The company also believes that these two principles can and should work together. As long as the company's practices are ethical, its stakeholders will view them as legitimate. Companies can improve their bottom line by engaging in CSR activities. Sustainable investment will increase as a result of these actions. Research on the factors influencing sustainable performance, such as CSR and green business activity, would be an exciting possible addition to enhancing financial performance on sustainability. This research will shed light on the factors that encourage manufacturing companies to put forth sustainability reports. Several groups of researchers have conducted studies that factor in green investment. However, the results of these investigations are inconsistent. Most of the existing literature needs to consider that green and CSR initiatives can boost a company's long-term financial performance. Some industry analysts have speculated that green and environmental spending could boost a company's bottom line (Barnabas, 2017). Maintaining a green environment has positive social, ecological, and economic effects.

According to Laskar and Maji (2016), firms receive a positive response from potential investors when they openly disclose their green investment operations. According to research, the primary factors that motivate green investment are monetary growth and specific green policy measures (Sekhon & Kathuria, 2020). Environmental investments benefit from environmental technology. Investing in environmentally friendly technologies would give businesses a competitive edge and lead to more stable growth over time. CSR increases the number of possible investors and decreases their perception of risk. Other research, however, has yet to find evidence linking environmental activism to increased profits. In addition, Masum et al. (2019) concluded that companies with high environmental performance make more comprehensive environmental disclosures, which in turn increases the value of the company. Boonnual et al. (2017) claim that a positive effect on stock price can be seen when a company takes on substantial social responsibility. Alkhalaileh (2016) found that there is a positive correlation between CSR implementation and competitive advantage when there are multiple sets of stakeholders involved.

CSR-focused businesses are more likely to receive certified audit reports. A company's long-term development and value can be boosted by focusing more on ecological, economic, and regulatory aspects (Razali et al., 2018). A company's value could increase if its business practices are more socially responsible. Companies that were very committed to CSR

Were less likely to have their stock prices go down. Sekhon and Kathuria (2020) also showed that investors' investment decisions are based on making money and doing good things for society. Masum et al. (2019) say that corporations that talk about their social responsibility activities make it much easier for them to avoid paying taxes. Companies with strong CSR performance have low realized returns. A study, however, showed no correlation between CSR performance and financial outcomes. (Razali et al., 2018). Businesses in Pakistan are required to share their sustainability results because 20% of the environmental damage in the country comes from the manufacturing sector. In addition to getting the most money out of investments, it is essential to consider how they will affect society. A company that cares about the environment will give long-term profits to investors who care about ethics (Rasheed et al., 2018).

This study aims to identify strategies for enhancing the sustainable performance and financial performance of Pakistani manufacturing enterprises. High financial and sustainable performance might result from environmental concerns based on green and CSR investments. Green investments with low carbon and climate resilience are the essential aspect of a company's sustainability that will motivate shareholder assurance in investing in renewable business activity (Ikrametal., 2019).

It can also be said, an investment that is conscientious with regard to the environment is an ecologically ethical investment. Green investments have the potential to boost both financial and sustainable performance. This is because firms that reveal their environmental performance at a cheaper cost than those that do not are more likely to make green investments. CSR investments may improve financial and sustainable performance in addition to green investments. According to researchers CSR, investment can influence societal and commercial development favourably (Kong et al., 2020). Thus, the advantages of structuring CSR efforts are apparent to many firms.

Additionally, CSR investments may increase reputation, profitability, and sustainable achievement, further improving the company's image. The substantial additional expenses of social responsibility, however, have led to suggest that CSR has no impact on a company's financial achievement and sustainability achievement (Jang et al., 2019). According to Novitasari and Tarigan (2022), there isn't a discernible difference between firms that use sustainability ideas and those that do not in terms of their financial success. The company's corporate social responsibility program is no longer seen as its duty to the public; instead, it is now viewed as an investment in its future growth and viability. The company's CSR program has now changed from focusing on spending budgets to focusing on profits. Furthermore, the success of a company's operational activity is increasingly determined by its financial performance (Bai&Chang, 2015). Many businesses base their investment choices on financial success in a sustainable environment. So that investors can forecast their profits, the company has published financial and sustainability reports. The success of a business will have a direct impact on the amount of money that investors are willing to put into it. The performance will be more durable as a result (Khan et al., 2022). In contrast, Karnani (2010) found financial success to have an insignificant impact on sustainable performance. The preceding research only looked at the connection between CSR and a business's financial performance. This study looked at how investments in corporate social responsibility and the environment might help businesses operate better financially and sustainably. This study also examined how financial results affected, the effects of corporate social responsibility and green investments on sustainable performance. Government policy and pressure from environmental interests significantly impact business in Pakistan. This research helps the company's managing director react favourably to the environment. In addition, it supports the company's adoption of corporate social responsibility and green investments, which boost earnings without harming the environment, and it serves as a reference for investors when choosing an investment (Boonnualetal, 2017).

Theoretical Framework and Literature Review Legitimacy Theory

The legitimacy hypothesis focuses on how important societal acceptance is for promoting a company's longevity. Thus, it is up to businesses to assess if certain activities are suitable and in line with cultural standards and views. According to Zelditch Jr (2018), legitimacy refers to business operations that benefit society across different social systems. How well societal norms and ideals are respected determines legitimacy. It improves the company's reputation in society. The company also continues to operate as long as society considers its demands to have been satisfied. The organization consistently implements environmental performance policies in order to be responsible and build the appropriate reputation (Deegan, 2014). There are four company legitimacy methods. To communicate how a company is serving the interests of its stakeholders, social reporting should be employed. The second is public education and informative outreach on relevant topics. Third, using symbolic means to achieve acceptance without changing behaviour or complying with social expectations (Watts et al., 2019). The fourth and last contains commonly recognized perspectives by business operations. This theory has been applied to clarify how an organization's environmental performance impacts its profitability. Stakeholder theory states that organizations create policies and implement strategic choices in response to the demands of both their internal and external partners. According to Civera and Freeman (2019), a stakeholder is "any entity or individual that has the capacity to affect or be influenced by how a company's goals are achieved". According to stakeholder theory, a business will only succeed if it carefully analyzes all relevant stakeholder interests. Stakeholder expectations have recently increased in response to rising global worries about global warming, natural calamities, and emissions of greenhouse gases. Corporations should take concrete measures to reduce their harmful impact on the environment (Dmytriyev et al., 2021). Stakeholders have a significant impact on how environmentally responsible the company is, including.

1. A government that focuses on protecting the environment and puts in place strict carbon prices and other green rules.
2. Customers who care about the environment choose green products even if they cost more.
3. Employees who care about the environment would rather work for companies with a low carbon footprint.
4. People who choose green portfolios and pay for their own environmental studies are called "green investors."

The organization's ability to generate income and grow is how financial performance is assessed. Several accounting techniques, including return on assets, return on equity, return on sales, and others, can be used to evaluate financial performance. Many businesses employ these comprehensive approaches to determine if there has been an increase or reduction in performance over time (Saha et al., 2020). According to Taouab and Issor (2019), financial performance over time can be used to gauge how well a firm is performing, how investors are making decisions, and how much capital the management of the company needs to grow.

Corporate Social Responsibility

Corporate social responsibility has been around for a long time and has a hazy past (Latapí Agudelo et al., 2019). However, more recently, academics and corporations have shown an interest. It gained popularity in the 1950s. As a result of its advanced institutional structures and equitable legislation, the West is widely credited as the birthplace of corporate social responsibility (CSR) theories, concepts, and ideas. The idea of corporate social responsibility (CSR) is talked about a lot in both academic and business settings. However, no one can agree on what it means. CSR can be understood in a variety of ways, and so there are many alternative ways to define it (Sharma, 2019). However, the unified CSR standard definitions say that companies should make their programs based on the morals of society. Razali et al. (2018) defined CSR as an organization's duty to follow societal norms when it comes to the law, finances, ethics, and moral standards.

The term "corporate social responsibility (CSR) Refers to a firm's stated intention to act ethically toward its employees, customers, and the community as a whole. Businesses that operate ethically, considering the needs of their employees, customers, and community at large, and work to improve it, are engaging in corporate social responsibility (CSR) (Masumet08Ual.,2019). Reducing carbon footprints is a big part of banks' social responsibility work. CSR activities that help people and keep the environment safe are also critical. CSR activities are what businesses do to help society and the environment, and they are essential to any business's long-term health and success (Khan et al., 2022).

Green Investment

Li et al.(2021) use the phrase "green investments" to refer to all capital expenditures associated with environmental protection. Examples of this type of investment include research and development in green technology, investments in renewable technology, and investments in specific energy-saving technology. The businesses' overall assets at year's end are utilized to balance out the effects of their different sizes. According to the company's social responsibility report and other documents, the following are examples of green investments (Huang & Lei, 2021).

- Costs related to new ideas in technology and research and development.
- Processing Pollutants and Industrial Waste.
- Equipment for desulfurization and denitrification must be bought.
- and built, and boilers must be fixed up.
- Building green and long-lasting infrastructure.
- Fixing up the natural systems at mine sites.

If a company wants to earn and keep its customers' respect, it should put money into projects that help the environment. One way to lessen the bad effects of the company's activities is to cut down on the amount of energy it uses and the amount of carbon dioxide it puts into the air. The term "green investment" refers to any financial commitment made to reduce emissions of greenhouse gases and air pollution without materially reducing output or consumption of non-energy commodities (Lyeonov et al., 2019). Green investment is a new way for companies to use their limited funds to help develop technologies and resources that are good for the environment and do not use up natural resources. Using less energy, using resources more efficiently, and looking into renewable energy sources are all ways to improve the environment and lower emissions (Tchórzewska, 2020). So, strict environmental rules will make it much less likely that chemical oxygen demand emissions will happen because of business environmental policies.Firm Financial and Sustainable Performance

Nine indicators of a company's success can be tracked by a comprehensive program: financial health, growth, share value, the satisfaction of customers and employees, reliability of the auditing process, effectiveness of company operations, and impact on the local community. The company's success is due to its knowledge, mixture, and technological skills (Naciti, 2019). Foreign ownership, corporate governance, and political stability are the main factors that affect a company's performance. The market position shows the company's success, and ongoing value creation and value capture activities could help it do even better (Khaled et al., 2021). The company's success depends on how happy its global investors are. It does this by, among other things, making it easy for money to flow, coming up with new ideas and promising new opportunities, and making businesses more productive. In conclusion, but certainly not least, management needs to be able to finish long-term initiatives that have indirect benefits that are obvious from the beginning of the financial system after it has been implemented (Nikolaouetal.,2019).

On the other hand, green investments can show a company's commitment to social responsibility and improve its reputation, which is suitable for its business (Chen&Ma, 2021). Organizations will put more money into green investments to make it cheaper for them to follow environmental rules and laws. So, companies are showing signs of doing more business in this area (Falcone, 2020). This trend is also shown by the growing interest in green innovations and the dedication to social, institutional, and economic sustainability. So, "green investment" is linked to better business performance, but it is hard to put into place across industries because green investments vary a lot from company to company (Novitasari &Tarigan, 2022).

Hypothesis Development

Enterprises will increasingly rely on green investments to gain a competitive advantage. Even if business investments in environmental protection are risky, Environmental management strategies that are proactive can boost business success through operational innovation and product differentiation. (Yang et al., 2022). Corporate stakeholder responsibility can shape green investments and CSR (public, investors, shareholders, customers, and other parties).

As well as avoiding legitimacy issues and social and environmental problems there are other measures to enhance financial and sustainable performance. Environmental accounting practices enhance a company's credibility and reputation as an intangible asset (Lyeonovetal., 2019). This asset has long-term advantages. Companies that do poorly in terms of the environment typically have fewer shareholders, fewer chances for risk sharing, and lower share prices than those that perform well in terms of the environment (Irfan et al., 2022). Additionally, firms with positive stakeholder connections can lessen market unpredictability, disruption, loss, harm, and unpleasant incidents in their business operations. Environmental and social accounting systems make it easier to assist in managing and lowering environmental hazards in addition to other risks (Endianaetal., 2020).

Green investing involves intricate management and economic behaviour. The "win-win" of its economic and ecological objectives is not simple to realize. According to research on the economic effects of green investments, corporations when green technology is lucrative, only invest in it (Siedschlag & Yan, 2023). There is a significant return on an investment relative to the investment cost and advantages of emission reduction. When the investment in environmental protection pays off is the concern that businesses have more than if their company is worth being green (Zhang et al., 2019). In order to demonstrate its commitment to environmental responsibility, the corporation expresses its concern in its annual report. Additionally, society and its stakeholders decide the outcomes. According to Manrique and Martí-Ballester (2017), there is a correlation between green investments and a company's financial performance. Green investments and sustainable performance are correlated (Indriastuti & Chariri, 2021). This is because both company's management and its investors share a commitment to sustainability.

Contrarily, investments in CSR rely on immaterial assets like creativity, human capital, goodwill, and culture. CSR activities in environmental preservation are able to achieve this goal with the help of the company's stakeholders, customers, communities, and even the government (Oh et al., 2017). The firm's impacts on the economy, society, and environment are covered by the CSR investment. Additionally, there are better programs to inform stakeholders about the sustainability-related issue. According to Freeman (1984), a company's stakeholders, such as the welfare of its employees, clients, and community members, must get advantages. It seeks to build a positive connection between the business and the neighbourhood. CSR investment can boost a company's performance and reputation. CSR produces a sustainable performance that can draw stakeholders in and persuade them to purchase business shares as evidence of their ownership (Tienetal., 2020).

CSR can be considered a technique for boosting earnings, as a previous study has found a positive association between the two (Khan et al., 2022). There are a number of ways to do this, including enhancing efficiency, adaptability, strategic edge, and customer service. Ultimately, effective environmental management will boost financial performance (Lyeonovetal., 2019; Naciti, 2019).

Green investments and CSR investments help organizations of all sizes—public and private, big and small—in enhancing social welfare and protecting the environment, according to the sustainability report with GRI standards (Hussain et al., 2018). The improved interactions, reputation, trust among stakeholders, and governance can all contribute to economic expansion. Constructively engaging with stakeholders can boost the likelihood of attracting investment. The company's bottom line will benefit from higher output and sales. An uptick in net income or profit could indicate a turnaround in the business's fortunes (Oh et al., 2017). This shows the level of financial success the company achieved compared to the predetermined norms and standards. For investors, the rate of return rises as the business's earnings do (Martínez-Ferrero&Frias-Aceituno, 2015). For a business to last, it needs support from its community. Therefore, the more influential the stakeholders, the more the organization will make an effort to adapt. The degree of a firm's financial success influences the investment options available to potential investors (Kong et al., 2020). For example, when a company is doing well financially, stakeholders will start to pressure management to do certain things. It provides the company capital for economic, environmental, and social projects. The needs of the company's financial backers can be met only if it generates a healthy profit. Investment in social and environmental performance also helps ensure that the company can continue to meet the needs of its social stakeholders (Spreitzer & Porath, 2012). Sustainability in performance requires harmony between three components. People-Planet-Profit is another name for the Triple Bottom Line concept. Hence, it is up to corporate management to choose where their resources will be best put to use. That is to say, CSR and green investment should not be seen as extras but as essential parts of any successful business strategy (Kamble et al., 2020). By putting in place green investments and CSR initiatives, businesses can better move toward their social and financial improvement goals. It has been shown by Gadenne et al. (2012) that the short-term financial performance of a corporation affects its long-term success. This shows that the company's financial performance, as measured by return on assets, will increase if green and CSR efforts are properly implemented. The hypothesis is stated as follows:

H1: There is a significant positive impact of green investment on sustainable performance H2: There is a significant positive impact of CSR on sustainable performance.

H3: There is a significant positive impact of the mediating role of financial performance in the relationship between green investment and sustainable performance.

H4: There is a significant positive impact of the mediating role of financial performance in the relationship between CSR and sustainable performance.

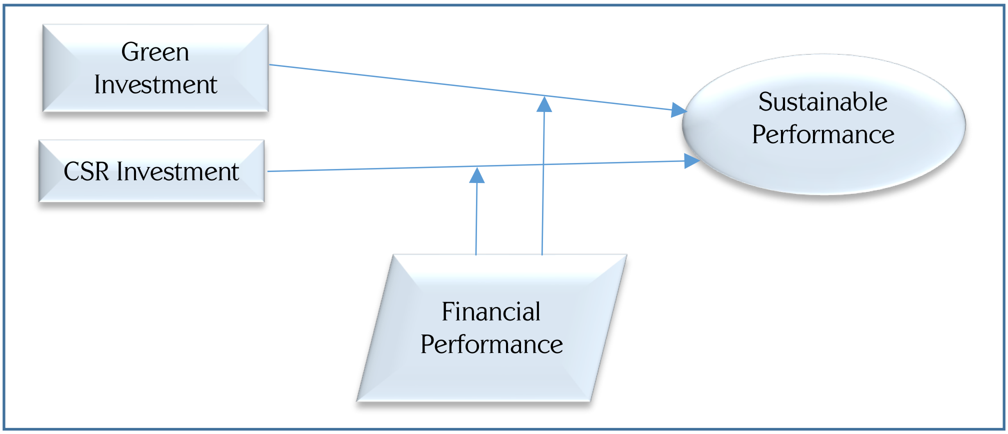

Figure 1

Research Methodology

The study's sample frame included all manufacturing businesses registered on the Pakistan Stock Exchange. Purposive sampling was the method of choice for this study. The following criteria were used to select the sample:

- Manufacturingfirmsthatpublishedannualreportsandsustainabilityreportsbetweeen November 30, 2018, and November 30, 2020
- Manufacturers who provided full information on all factors of interest;
- Businesses in the manufacturing sector that published annual reports.

130 manufacturing organizations were chosen as the study's sample based on these standards. The data was analyzed using SPSS. Financial performance is an intervening variable, green investment, and CSR investment are independent variables, and the dependent variable is sustainable performance.

Corporate reputation can be established and maintained through green investment. This company handles environmental impacts by reducing energy consumption, carbon pollution, and other issues (Chen & Ma, 2021). A corporation's environmental management success is used to track green investment. A company's CSR investment is an effort to position itself as a socially responsible organization to gain stakeholders' support. As consequence, it can enhance the firm's reputation, ultimately leading to higher earnings. CSR investment is calculated using natural logs, which account for the money spent on CSR projects (Jang et al., 2019).

Businesses utilize financial performance as a way to gauge their level of success in earning profits over a specific time frame. It refers to established rules or guidelines (Ikrametal., 2019). Using a proxy for Return on Asset, the profitability ratio measures financial performance (ROA). Net income to total assets is referred to as the ROA. Sustainable performance is aimed at strengthening investor confidence, employee commitment, and the firm's status in the marketplace (Khaledetal.,2021). The Sustainability Report Disclosure Index is used to assess sustainability performance. Both general and particular criteria are covered. Examples of general criteria include the organization's profile and the disclosure strategy and analysis. It is possible to pinpoint the limits, stakeholder interactions, reporting identities, accountability, morality, and integrity. Indicators of economic, environmental, and social categories, as well as their management method, are disclosed in detail by the standards in question. As the core of issues, if the information is made public, a score of 0 is used otherwise. The scores are then combined to provide the overall score for each business. A comparison between the obtained disclosure score and the maximum score is used to determine sustainable performance (Alkhalaileh, 2016).

Results

As Smart PLS (version 3.2.8) can coordinate the measurement and study of structural model analysis concurrently, this method was used to approximate the data. In the study, the structural equation model was primarily employed for the estimate and analysis of endogenous components, which was shown to account for the highest level of volatility. According to the proposal, the estimation processes for the measurement model and the structural model were carried out independently. 120 polls got 100 replies, representing 63.57% of male participants and 36.42 % of female respondents, with no missing values. Most respondents were in the age range of 20 to 39.

According to, this research "took 10 times the maximum number of structural routes aiming towards a given latent construct in a structural model."All of the demographic factors were used as control variables because of their importance. The statistics of the underlying study sample are shown in Table 1. The sample's 243 companies had an average (standard deviation) ROA of 0.05. (430.58). Tobin's Q as an extra financial performance metric has an average value of 1.01 on average (1.59). Considering environmental performance. Before the figures were inverted, it was discovered that the mean (median) natural logarithm of GHG emissions and average (Standard Deviation) GHG emissions output were 0.50 (2.45) and 10.64 (2.05), respectively. Two measures of green innovation, the number of green patents and the number of citations have average (Standard Deviation) scores of 120.53 (430.58) and 92.52 (329.63), accordingly.

Table1

Summary of Statistics.

S. No	Variables	Observations	Mean	Std. Dev	Min	Max
1	Tobin's Q	100	1.00524	1.5217	-5.049	13.558
2	Return on Assets (ROA)	100	0.05	0.05	-0.25	0.39
3	Return on Equity (ROE)	100	0.08254	1.06614	-22.548	4.594
4	Green Patents	100	120.649	430.521	1	4302
5	Green Citation	100	94.118	322.148	0	3294
6	Leverage	100	0.20156	0.25479	0	4.5970
7	Size	100	11.084902	2.0491	5.1764	17.664
8	GHG emission	100	-0.505847	2.9941	-5.1178	12.6654

The findings show that corporate investors' financial performance is significantly impacted favourably by environmental performance. So, the stronger an organization's financial success was on average throughout the sample, the better its environmental performance was demonstrated by reduced GHG emissions. The highest positive link is seen between ln GHG, a measure of GHG emissions, and Tobin's Q, which increases by 10.3 percentage points for every unit of ten that the environmental performance improves (pp). At the 5% level, this outcome is statistically significant.

Analysis of the Measurement Model

According to Cohen (1988), the reliability and validity of hypotheses were examined using Cronbach's alpha (CA) and the composite reliability (CR), both of which were found to have values greater than the critical value threshold of 0.70. According to the findings of additional convergent validity, the standard factor loading values for each construct were higher than 0.70 and the average variance extracted (AVE) for each construct was larger than 0.50, both of which are regarded as acceptable. A novel technique for assessing discriminant validity is the Heterotrait-Monotrait Ratio (HTMT) (DV). All constructs' ratio values of 0.080 indicate that discriminant validity is unchanged [97]. The results of the discriminant validity test are shown in Table 2.

Table 2

S. No	Variable	CSRCO	CSRCS	CSREM	CSREN	FP	GI
1	CSR to CommunityCSR to Consumer	0.7215	-	-	-	-	-
2	CSR to employees	0.37831	0.7215	-	-	-	-
3	CSR to environment	0.50486	0.7901	0.804	-	-	-
4	Financial Performance	0.1194	0.229	0.6217	0.4510	-	-
5	Green innovation	0.3271	0.126	0.172	0.871	0.647	-

Structural Model Analysis

The structural model, which was evaluated for its ability to explain phenomena, as shown by (R2), contains causal connections between endogenous and external elements. The predictive significance is likewise represented by Q2. TheR2ofFPwas0.908andtheGIwas0.448, both of which demonstrate the model's propensity to forecast. But, projected a higher reproving score to evaluate the study model's predictive power. Q2 results for FP and GI were 0.404 and 0.453, respectively. As a result, this version offers endogenous components the essential predictive value. The multi-variate linearity problem with data was further examined using the variance inflation aspect test (VIF). VIF levels must be less than 10. There is no multi-collinearity problem because all of the VIF values in Table 5 are lower than 10. Also, the test version had a good match to the data based on the standardized root method rectangular residual (SRMR) pricing, which was 0.064 less than the cutoff value of 0.08 [114]. The table below displays the outcome.

Table 3

Results of the Structural Model

S. No	Variables	R^2	Adj. R	VIF	Q^2	F^2	SRMR
1	FP	0.9014	0.894	1.224	0.4056	0.041	0.0547
2	GI	0.4456	0.4351	1.2031	0.456	-	-

In the above table, R^2 is the relationship co-efficient, VIF is the variance inflation factor, Q^2 is the predictive constant, F^2 is the effect of the size and SRMR is the standardized root mean square.

Path Coefficients

A bootstrapping approach was used to assess the significance of the hypotheses. In the case of the direct relationship, the values of H1 (=0.687, p 0.001), H2 (=0.307, p 0.004), and H3 (=0.502, p 0.000) are substantially and favourably linked. The value of H4 on the other hand is significantly and negatively linked (=0.322, p 0.076). All of the suggested paths are well connected, according to the empirical data. It suggests that CSR has a favourable impact on FP. Hence Hypothesis 1 is accepted that there is a positive impact of the GI on sustainable performance, H2 is also accepted that there is a positive effect of Corporate Social Responsibility on sustainable performance, H3 is also accepted that financial performance act as a mediating role while H4 is rejected.

Discussion

Financial performance and sustainable performance are positively impacted by green and CSR investments. This suggests that changes in the amount of green and CSR investments made by businesses have an effect on their financial and sustainable performance. Through these companies' environmental initiatives, such as the adoption of new energy and the release of corporate annual reports to reduce carbon dioxide emissions during the manufacturing process, the public, management, and investors can also be convinced by green investments and

CSR investments in Pakistani manufacturing companies. The potential of a firm to flourish financially and sustainably may thus be increased by investment in CSR and the environment (Endiana et al., 2020). The decrease in operational costs shows that CSR has been implemented in Pakistani industrial firms. This is because the company will incur fewer costs for CSR after implementing CSR than for product promotion. Although the first CSR costs are the firm's payments for environmental responsibility, CSR initiatives will influence company advertising efforts and boost company sales. The company will cut the cost of product promotion in order to reduce operating expenses.The larger the Corporate Social Responsibility investment, the more CSR initiatives the company engages in (the expense associated with CSR activities). This demonstrates how manufacturing companies' perspectives have changed to include CSR and green capital as actions to enhance the welfare of both societies and their own operations. Making an environmental investment is advantageous for the business (Jang et al., 2019). This is because obtaining returns in the form of significant profits is also a primary goal of social investment, in addition to paying care to the environment. As a result, it may enhance financial performance, luring investors to purchase shares. In addition, implementing CSR and green investments in Pakistani manufacturing firms suggests a strong and positive interaction with stakeholders. By investing in green and CSR initiatives that demonstrate a manufacturer's capacity to manage and minimize environmental and other hazards, risks of market uncertainty, interruption, damage, or devastation can be reduced.

The findings of this study support previous studies showing that green investments have a favourable impact on financial performance, including those (Martínez-Ferrero & Frias-Aceituno, 2015; Novitasari & Tarigan, 2022). Green investment has been shown to have a favourable impact on sustainable performance (Siedschlag & Yan, 2023). Along with these studies, others such as those by Spreitzer and Porath (2012) also suggested that Corporate Social Responsibility investment has a firm's sustainable performance can be enhanced. The research of Muoz et al. (2014), on the other hand, demonstrated that green investments had a negative effect on financial success. According to the researcher, firms view CSR investment as an expense that significantly negatively impacts financial performance (Waworuntuetal, 2014). Green investments, however, have been found to have a detrimental impact on sustainable performance (Ducassy, 2013). According to to study the improvement in financial performance is unaffected by CSR investment (Ganda, 2018). The results of this investigation show that increasing sustainable performance is independent of financial performance. According to Ohet al. (2017), financial performance has a detrimental impact on sustainable performance. A company's financial success can enhance its long-term sustainability. In other words, applying CSR and green investments will improve the firm's financial performance as determined by ROA (Rasheed et al., 2018).

Conclusion

The results of the study indicate that CSR could be a key factor in a company's success. In order to ensure the continued success of their enterprises, many companies have begun to embrace a policy known as "corporate social responsibility, "which emphasizes the importance of considering both the social and economic needs of the communities in which they operate.Financial performance and sustainable performance are positively and significantly impacted by green investment and CSR investment (Spreitzer & Porath, 2012). This suggests that changes in green and CSR investment levels have an impact on both financial and sustainable performance. Companies voluntarily engage in CSR and green investments to further their moral and social objectives. Prior study has revealed a number of CSR incentives, such as managing risk and avoiding legislative charges, despite the fact that firms must spend more to conduct green investments and CSR initiatives. While this is happening, sustained performance is positively impacted only marginally. Financial performance cannot operate as a buffer between the effects of green and CSR investment on sustainable performance (Novitasari & Tarigan, 2022). Therefore, sustained performance improvement is no longer primarily dependent on financial performance. Implications for CSR and green investment on sustainable performance are provided by this study. In the first instance, this research can be used by Pakistani manufacturers as a resource in deciding whether or not to engage in corporate social responsibility and green investing. It could boost revenue without endangering the environment. Second, the government can use this report as a guide when creating industry and environmental rules. Thirdly, investors can use it as guidance when making investment-related decisions. The study's findings are applicable only to Pakistani factories and cannot be extrapolated to factories internationally. First, only 8.7% of the variance in financial performance and 34.6 per cent of the variance in sustainable performance can be attributed to the variables of green investment and CSR investment. Other independent factors, such as the cost of carbon, organizational characteristics, excellent corporate governance, and illustrations from non-manufacturing firms, must thus be included in the next study.

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