IMPACT OF CORPORATE SOCIAL RESPONSIBILITY AND GREEN INNOVATION ON ENVIRONMENTAL PERFORMANCE IN COMMERCIAL BANKS OPERATING IN SINDH

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ABSTRACT

This research attempts to observe the impact of corporate social responsibility and green innovation on environmental performance by employing primary data collected through a survey questionnaire from commercial banks working in Sindh, Pakistan. The convenience sampling technique was applied for data collection. In total, 84 questionnaires were distributed among the employees of commercial banks; 78 questionnaires were filled out properly, and the remaining questionnaires were discarded. After data collection, it was analyzed in Smart PLS 4. The findings of the study show the positive and significant effect of CSR and GI on environmental performance. This suggests that greater attention must be paid by banks to leveraging CSR and GI to enhance their ability to improve environmental performance. Moreover, this research adds to the theory of legitimacy by examining how banking institutions fund and carry out corporate social responsibility inventiveness that, as a social force and as required by law, businesses should engage in order to promote environmental sustainability and social acceptance. Furthermore, green initiatives help banking institutions improve their environmental performance, such as green technology, online banking, and customer service.

Key words: Corporate social responsibility, Green innovation, Environmental performance

INTRODUCTION

Environmental performance has become the one of the major concern throughout the world because degradation in environment may lead to many problems. Few years ago no any attention was paid by practitioners, policy makers, researchers and businessmen towards the environment because they thought that things which are being produced in their firms have no any effect on the surroundings. But now practitioners, policy makers, researchers and businessmen have agreed to consider numerous environmental issues and the causes which are the result of environmental degradation such as change in climate, global warming, air emissions, water pollution, air pollution, ecological imbalance, misuse of resources or resource reduction and usage of dangerous materials and carbon dioxide gases. The year 2018 is considered as one of the hottest years due to above mentioned challenges of environment

(Huang, Haseeb, & Usman, 2022). So, greater attention has been paid by the stakeholders in order to decrease environmental detriment, and encouraging enhancing manufacturing actions to this purpose (Ahmad & Usman, 2022). Now, it might be understood that human behavior is the consequence and reason of environmental harms and pollutions (Wang & Zhi, 2016). As far as, environmental issues are known, so the responsibility of the organizations is to focus on the environmental protection because there is direct influence of "Environment" on the business's world. For this reason, a lot of organizations have been concentrating on their daily operations and making sure that they don't negatively impact the environment. Environmental management systems and green undertakings are being implemented by most of organizations in order to control the environmental pollution as a result that

pollution could be reduced by individual behavior (Liu, Liu, & Xia, 2020)and consideration of environmental factors and their impact might lead towards the competitive advantage.

For this purpose, the contribution of corporate social responsibility and green innovation is to assure to bring about sustainability in environmental performance. Environmental performance is all about dealing with the improvement of environment-friendly products (Hossain , 2019).

The term Corporate Social Responsibility has emerged when John Elkington had introduced sustainable development in terms of (economic development, environmental precaution and social integrity). It is the responsibility of company for its stockholders, employees, customers, suppliers, society, competitors, government and banks (Kim, 2020). CSR is the most important concern of researchers nowadays for the reason that consumers require those goods and services which are eco-friendly. Stakeholders such as competitors, suppliers, employees, customers of an organization are pressurizing on organizations to talk about social and environmental problems (Pekovic, 2020).CSR is recognized an important business practice throughout the world (Xiang & Jones, 2020).

Those organizations become more successful in the current markets who think more about their customers. According to Bowen and Johnson (1953), corporate social responsibility (CSR) is "the responsibility of a business to pursue strategies, choose options, and take actions that add value for the public."

"Limited Liability Company Law No. 40, article 74 of 2007" is all about the regulation of companies which conduct business undertakings relating to natural resources are needed in order to perform societal and environmental accountability. So, if the business fails to realize these both accountabilities it would be subject to authorizations (Nuswantara & Pramesti, 2020).

Green innovation is regarded as a key foundation to advance the business and fosters the ecosystem (Raza & Murad, 2014). Whereas, "green innovation is the capability for advancing the eco-friendly products and procedures, evade dangerous waste, proper usage of raw material and spread over green production" (Rehman & Shah, 2020).

A great role is played by banking institutions in developed and developing countries for attaining organization's environmental sustainability and fighting against climate change (Yan & Siddik, 2022). Thus, it is important to discover that how banking institutions can increase the environmental sustainability of their organizations. Thus, current study focuses on the banking sector which directly impacts on environment, to highlight the problems and variations like air and water pollution, reduction in natural resources, change in climate (Usman, 2022).

No doubt environmental sustainability and social cohesiveness are closely related to economic progress but it has become more important to merge these terms into one research (Sánchez-Infante Hernández, & Yañez-Araque, 2020). Additionally, it is crucial to think about the role that CSR plays in conducting business through such methods that takes the social, economic, and environmental issues into account." (Sánchez-Infante Hernández, & Yañez-Araque, 2020). Furthermore, according to Kraus and Rehman (2020), in determining business performance, environmental performance, and sustainability performance, is great role is played by green innovation (Qiu & Zhao, 2020). Moreover, Green innovation is believed to show a significant starring role in defining sustainability performance (Chen & Lai, 2006), environmental performance (Kraus & Rehman, 2020), and firm performance (Qiu & Zhao, 2020). Since "Environmental Performance" (EP) is a subset of environmental sustainability, it follows that "green innovation" and "corporate social responsibility" is crucial to a nation's long-term economic growth and the sustainability of its businesses.

Developing country for example Pakistan are making struggles to fight against environment change and its harmful sound effects on "environment" (Siddik & Zheng, 2021). A great number of measures have been implemented in their daily operations in order to tackle such challenges, such as green innovation, absorption of corporate social responsibility (Guang-Wen & Siddik, 2022). Moreover, previous literature suggest that CSR and GI are more dominant in developed countries, but there should be given stress in emerging economies such as Pakistan due to growing economy (Hossain , 2019). Therefore, this study stress on the determining factors of

"Environmental Performance" in Pakistan's banking institutions, "a developing country". Little consideration has been given to EP specially in emerging economies, there is great role and contribution of banking institutions in the economy of Pakistan but no research exist on "the impact of CSR and GI on EP in the Banking Institutions of Pakistan" (Dai; Siddik ; Tian, 2022).

Research Objectives

The main purpose of this research is to fill these gaps by examining the influences of green innovation and corporate social responsibility on environmental performance of Pakistani banking institutions. Specifically, it tries to achieve the following particular objectives:

1. To assess the impact of Corporate Social Responsibility on Environmental Performance .
2. To assess the impact of Green Innovation on Environmental Performance .

Research Questions

Following research questions will be investigated by this research study:

1. What is relationship between Corporate Social Responsibility and Environmental Performance ?
2. What is relationship between Green Innovation on Environmental Performance ?

Literature Review

Legitimacy Theory is considered as one of the most significant theories of organization and management". According to this theory, an organization has an implicit social contract with its society in which it is operating and consent of society is serious in order to promote the sustainability of an institution. It also holds that a business operates under an implied social contract with its society in which it functions and the consent of that society is crucial to promote an institution's sustainability (Dowling & Pfeffer, 1975). There should be motivation for managers in this social contract (Shocker and Sethi 1973) by executing proper structures and procedures which must be aligned with the particular values, customs and boundaries of a society (Dowling & Pfeffer, 1975). Consequently, business should choose activities according to values, norms and beliefs of particular society. Moreover, on the basis of legitimacy theory, it can be

understood about the CSR that organization conducting the business with the motive of increasing the overall "performance and sustainability of business" by keeping in view societal & environmental benefits (Guang-Wen & Siddik, 2022). Consequently, it can be said that an organization's capacity to satisfy societal expectations through suitable systems determines its long-term viability and success. Legitimating strategies are adopted by organizations in case of arising or detecting a legitimacy gap (Fernando & Lawrence, 2014). As a result, "the process of legitimization is nonstop which is maintained by effective tools to communicate the legitimization actions of a business." A great role is played by CSR in enhancing the image of a business as a respectable corporate resident (O'Donovan, 1999). Nevertheless, values of society are strong (Deegan, 2002), particularly with respect to CSR. An organization can increase its competitive point through these legitimization strategies because these strategies improve the access of an organization towards resources, their consumers, employees, stakeholders' relationships and its image as well. Its legitimacy will suffer if any uncertainty of lack of competency found by society (Aguilera, Williams, & Rupp, 2007).

Furthermore, GI refers to the advanced initiatives of a business like green banking, internet banking, remote deposit, and paper reduction directed to improve the whole sustainability of environment. For example, Mocan, Rus, and Draghici (2015) CSR refers to the tactics used by companies for ensuring that they are working in an moral, socially accountable and developmentally advantageous way towards the society (Kraus & Rehman, 2020) (Xiang & Jones, 2020). Thus, in order to achieve complete ecological sustainability, businesses should use GI and "CSR dimensions such as social, economic, and environmental" in order to gain, maintain, and regain their legitimacy. This is in line with the theory of legitimacy. Thus, Pakistan's research framework for assessing the connection between CSR, GI, and EP in baking institutions is developed on the basis of legitimacy theory's concept."

Corporate Social Responsibility and Environmental Performance

Nowadays, the term "corporate social responsibility" has taken on new significance and is now regarded as

crucial business preparation globally (Xiang & Jones, 2020). There is no particular definition of CSR in spite of several studies on CSR. Organizations should consider the expectations of community and fulfill the requirements of consumers in order to become successful in the marketplace.

As local employees are being hired in the organization and they bring different knowledge, skills and capabilities there, so in return an organization must think about their wellbeing as motivating them, keeping their productivity flourished and reducing staff turnover. One of the researches conducted in Croatia, it was found in that research that responsible behavior has greater influence on the organization's performance in Croatia. An organization and community should maintain mutually beneficial relationship with each other because business is the part of public and success of the organization should be shared with it as well.

According to Ahmad, Ahmad, N.; Ullah, Z.; Arshad, M.Z. (2021) EP is significantly improved by activities of CSR, and in Pakistan the pro environmental behavior is the personnel's being encouraged by CSR activities by providing assistance in reducing the environmental footsteps. CSR positively influence on the environment, cost and performance of market (Suganthi, 2019) . Furthermore, significant co- relation has been found of economic performance with the social and environmental performance.

According to Ahwati & Ardini (2021) reputation of the company depends on the environmental performance so investors give positive response due to its good reputation, therefore, companies spend a lot of money on its environmental performance. Environment and social concern of company is the indication of environmental performance which is revealed in CSR and market will respond positively in order to increase the share price and company value (Ahwati & Ardini, 2021). Patrick Velte (2021) used legitimacy theory in his theoretical framework and assumed that a company should accomplish the values, expectations and achieve legitimacy of the respective society through the social contract. CSR enhance the Environmental performance and financial performance (Velte, 2021). Therefore, it is a strategic step to implement the CSR activities in a business for assuring sustainable development.

The core determination of a firm to enhance the value for the wellbeing of shareholders and stakeholders. By paying more attention towards the economic, social and environmental dimension, the value of a company will be capable to nurture in a sustainable way (Pinto & Allui, 2020). The application of Corporate Social Responsibility facilitates the attainment of these three objectives, "which function as a means of corporate accountability to maintain environmental equilibrium and enhance the stakeholders' welfare concurrently (Hafez, 2016; Machmuddah, Sari, & Utomo, 2020). So following hypothesis is anticipated.

RH1: "There is positive and significant influence of Corporate Social Responsibility towards Environmental Performance."

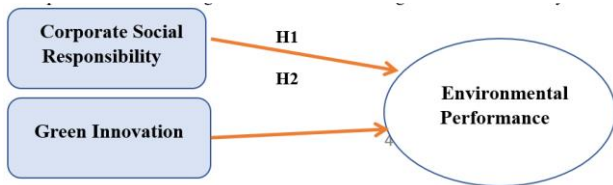**Green Innovation and Environmental Performance**

Green innovation is the part of the environmental plans of an organization and through these environmental rewards can also be inspired (Adegbile & Sarpong, 2017). Green innovation does not only reduce the adverse influence of environment on an organization but also it enhances the financial rewards, social rewards and status of an organization. Since the environmental influence of a firm's operations on the surrounding environment is referred to as environmental performance (EP) (Klassen & Whybark, 1999) and Green innovation is about to invent such equipment which can be used daily for reducing electricity, water and air pollution, wastage and preservation of energy and water. Many serious problems are being faced throughout the world Due to high record of heating (Li, Deng, & Peng, 2020). "Stated that execution of green innovation not only prevents the environment from degradation but also it improves the overall performance of the firm" (Wang, Ansar , & Murad, 2021). It is the indication that those organizations who emphasize on the practices of GI then financial and nor financial performance can be promoted by them. On the basis on previous results it can be suggested that economic security and improved environmental system will be developed and promoted by environmentally friendly innovations. Thus, The term "green innovation" (GI) refers to technological developments that help banking institutions improve their overall environmental sustainability. Examples of these developments

include green technology, online banking, green banking, and online customer service. Hussain, Abbass, & Usman (2022) discovered that the best measure of improving environmental performance is green innovation, which lowers energy use, air emissions, the use of hazardous materials, and water pollution. So following hypothesis is proposed.

RH2: "There is positive and significant influence of Green Innovation towards Environmental Performance."

Research Model

This study uses data from banking institutions of Pakistan, a developing country, to construct and test a conceptual model to investigate the connections among the variables of study.

1. H1: There is positive and significant influence of Corporate Social Responsibility towards Environmental Performance.
2. H2: There is positive and significant influence of Green Innovation towards Environmental Performance.

Research methods

The primary goal of this research is to look at the connection between environmental performance, green innovation and corporate social responsibility in the banking institutions of an emerging economy like Pakistan, particularly from Sindh province. Literature is also being reviewed to find insights. A deductive approach was used to test the hypotheses of this study by applying explanatory research strategy. Since this study is quantitative in nature, primary data was gathered through structured, closed-ended survey questionnaires by applying convenience sampling technique a sort of non-probability sampling, allowed the researcher to identify respondents who were convenient, available at a particular time, willing to contribute, and a reliable source of data for the study.. Consequently, information was being gathered from Sindh, commercial bank employees, Pakistan from June

2023 to July 2023 through online survey and face to face meetings for this study. Items used in this study were adopted from the previous studies and were modified according to the research context. CSR has three dimensions (Social, economic and environmental) and each dimension contains 2 items which are adapted from Kraus, Rehman,2020; Currás-Pérez, Dolz-Dolz, 2018; Chwiłkowska-Kubala, Cyfert, 2021; Dai, Siddik, Tian 2022. GI contains 5 items and adapted from previous researches of Zheng, Siddik, 2021; Chen, Siddik, Zheng, 2022; Zhang, Wang, Zhong, Yang, 2022 , Dai, Siddik, Tian 2022 and in the last , EP contains 5 items which are adapted from Wang, Khan, Anwar, Shahzad, 2021; Dai, Siddik, Tian 2022) and were assessed on five-point Likert scale(1= strongly dissatisfy to 5= strongly satisfy), items that measured the research study's constructs (CSR, GI, and EP). The sample size was consisted of 84 structured questionnaires which were distributed among the employees of banks, 78 questionnaires were filled properly which represent 92% response rate and remaining questionnaires were discarded due to inaccuracy of data. N=78, denotes the sample size.

Table 1: Demographics of Respondents

Sr. No	Demographic	Characteristics	Frequency	Percentage
1	Age	21-30 31-40 41-50 50+ Total	13 31 27 7 78	16.7 39.7 34.6 9.0 100.0
2	Gender	Male Female Total	60 18 78	76.9 23.1 100.0
3	Education	Bechlors Masters M.Phil PH.D Total	12 34 25 7 78	15.4 59.0 32.1 9.0 100.0

5	Income	21000-30000	19	24.4
		31000-40000	21	48.7
		41000-50000	24	23.1
		50+	14	3.8
		Total	78	100.0
6	Experience	1-5years	5	6.4
		6-10years	9	11.5
		11-16years	17	21.8
		17-20years	23	29.5
		20+	24	30.8
		Total	78	100.0

Data analysis and results

In this study, Smart PLS version 4 was employed for testing the hypotheses. Target constructs are predicted and explained, small size of sample is required, model complexity, no normality assumption regarding data and more suitable for complex and simple models as well (Hair, Ringle, & Sarstedt, 2014) reflective as well as formative models, even with single item is supportable, no any assumption regarding interval scales "(Haenlein and Kaplan 2004 , Hair 2011)". Moreover, in this research study, three reflective constructs are being included; "Environmental Performance, Green Innovation, and Corporate Social Responsibility". According to Henseler (2009) , According to Anderson & Gerbing (1988), PLS-SEM can be divided into two categories: measurement models and structured models. "Whereas the structural model is used for testing the connection between latent constructs, and measurement model is used to specify the relationship between the latent construct and its observed indicators with the motive of assuring the reliability and validity of constructs" (Smith, 1988). "The conclusion is supported regarding quality of data and consistency of structural model by these results (Hair, Ringle, & Sarstedt, 2016)".

So, the measurement model comprises four test types: discriminant validity, convergent validity, indicator reliability, and internal consistency reliability for confirming the constructs. However,

"Composite reliability (CR) is recognized better to evaluate the internal consistency than Cronbach's alpha because it retains the standardized loadings of the observed indicators" (PLS-SEM). Cronbach's alpha offers a more conservative measure (Hair, Ringle, & Sarstedt, 2014). Therefore, previous studies suggest using Composite reliability as a substitution (Hair 2012). The value for reliability of construct should exceed 0.70 (Rossiter, 2002). Table 2 shows the lower outer loading is o.512 and the highest factor loading is 0.961 and this is more than threshold of 0.50 (Hair, Ringle, & Sarstedt, 2014). So, Factor loadings are used to analyze the indicator reliability, so it is confirmed that "there is no issue about individual item reliability. Items can be taken into consideration if they don't interfere with the "composite reliability and Average Variance extracted (AVE)" if value of factor loading is between 0.4 and 0.5 (Hair, Ringle, & Sarstedt, 2016). Internal consistency reliability must be used to measure for calculating the "Composite Reliability (CR)". So the value of the CR should be higher than 0.60 (Hair, Ringle, & Sarstedt, 2014). Value of Composite Reliability (CR) should be higher than 0.7 and "the value of Cronbach's Alpha ranges between 0.6 and 0.7" should be accepted in exploratory research. However, if the value of CR is greater than 0.95 can be problematical. "Table 2 indicates that all constructs' CR values are more than 0.60, indicating that all constructs' homogeneousness, internal consistency and reliability are recommended (Bagozzi, & Phillips, 1991). Therefore, "internal consistency reliability" is achieved in this study as per criteria. "Convergent validity is the degree to which same construct is examined by its items" (Rehman & Chaudhry, 2019). In other words, It is possible to characterize it as an evaluation that quantifies the degree of correlation between several indicators of the same construct. Convergent validity is examined through CR, factor loadings and AVE. table 2 represents that "0.582 the smallest value of AVE and 0.696 greatest value of AVE". So this study achieved convergent validity as per criteria which is greater than 0.50 (Hair, Ringle, & Sarstedt, 2014).

Table.2

Construct	Items	Factor Loading	Cronbach's Alpha	"Composite Reliability"	AVE
CSR	CSR-1	0.512	0.804	0.774	0.589
	CSR-2	0.864			
	CSR-3	0.612			
	CSR-4	0.510			
	CSR-5	0.526			
	CSR-6	0.821			
GI	GI-1	0.795	0.864	0.815	0.582
	GI-2	0.822			
	GI-3	0.930			
	GI-4	0.711			
	GI-5	0.895			
EP	EP-1	0.709	0.895	0.919	0.696
	EP-2	0.527			
	EP-3	0.961			
	EP-4	0.519			
	EP-5	0.662			

Discriminant validity is used to avoid the multicolinearity issue. According to Rehman and Chaudhry (2019), it is the degree to which a variable is differs and is distinct from another variable in reality or does not reflect any other variable.

A popular method for calculating discriminant validity was suggested by Fornell and Larcker (1981) and involves measuring the AVE's square root of a construct with its correlation of other latent constructs. "Accordingly, each construct's square root of AVE must be higher than its correlation with any other latent construct (Fornell and Larcker, 1981)". "A construct should explain average amount of variance towards its indicators relative to total variance of its indicators". So, "latent construct must share a greater variance to its related indicators than the variance it shares with other construct in the same model" (Fornell and Larcker, 1981). Table 3 shows each latent construct's square root of AVE, which is greater than its correlation with other latent constructs and a sign of acceptable discriminant validity.

Table 3: Fornell-Larcker Criterion

	Corporate Social Responsibility	Environmental Performance	Green Innovation
Corporate Social Responsibility	0.823		
Environmental Performance	0.179	0.834	
Green Innovation	0.044	0.112	0.894

"Few years ago, a new method was introduced by researchers for computing the discriminant validity and researchers found that this method is more suitable in order to compute the discriminant validity".   So, Henseler and Sarstedt (2015) presented the "Heterotrait-Monotrait ratio (HTMT) of correlation" which is an innovative technique for determining the discriminant validity.

In order to ensure that the latent constructs of this study are truly dissimilar from one another and are not evaluating the similar thing that could lead to a multicollinearity problem, discriminant validity is evaluated. When evaluating "the discriminant validity rather than Fornell-Larcker criterion and cross loadings," the HTMT criterion is regarded as the gold standard.

When the HTMT value is close to 1, discriminant validity is not present, it means the value should be less than 1. So, Hamid (2017) suggested HTMT criteria which is the threshold of 0.85 value, this value indicates that latent constructs which are being used in the research model are conceptually different but if the value of HTMT is 0.9 it is the sign of conceptually same latent constructs (Henseler, Ringle, & Sarstedt, 2015). Table 4 displays the HTMT values of all latent constructs, which are less than 0.85. The variance inflation factor (VIF) is also used to check the multicollinearity problem. (Hair, Ringle, & Sarstedt, 2014) suggested its threshold value which must be less than 5, so the results satisfy the criteria of discriminant validity".

Table 4: Heterotrait-monotrait ratio (HTMT)

	Heterotrait-monotrait ratio (HTMT)
Environmental Performance <-> Corporate Social Responsibility	0.115
Green Innovation <-> Corporate Social Responsibility	0.134
Green Innovation <-> Environmental Performance	0.073

Empirical Results

After the execution of measurement model (outer model) in earlier section, now steps will be taken for validating the proposed hypotheses. By using Smart PLS 4 hypotheses will be tested for evaluating the research model and structural path. Therefore,

structural model (inner model) is examined in this section. The value of p and value of t is calculated in the inner model for testing the projected hypotheses. The suggested hypotheses are acceptable when the values of t and p are greater than 1.96 and 0.05, respectively. So, in this study, the environmental performance is impacted by CSR (b=0.562, t =4.564, p=0.00), hence H1 is accepted. In the same way, Environmental Performance is affected by Green Innovation (b=0.601, t=4.257, p=001), and H2 is also accepted.

Predictive Relevance and Effect Size

In order to calculate the "value of Q2", some of researchers offer another method for finding the predictive accuracy of path model (Stone, 1974). In the Smart PLS 4, the blinding bolding technique can be used to calculate the value of Q2. According to Chin (1998), its value must be greater than zero. The value of Q2 indicating large, medium and small large predictive relevance effect, 0.35, 0.15 and 0.02 respectively (Cohen, Manion, and Morrison, 2013), The environmental performance has large predictive relevance effect of Corporate Social Responsibility that is 0.38 and 0.17 effect of Green Innovation which is medium, thus, endogenous constructs can be explained by the predictive power of this study's theoretical framework. (Henseler, & Sinkovics, 2009) suggested the computation of effect size (f2) in the structural (inner) model for every path coefficient. According to Cohen (1998), F2's value ought to be higher than zero. Therefore, greater than 0.02 for f2 indicates a smaller effect size, 0.15 for a medium and 0.35 for a larger effect size. The substantial impact of the exogenous construct on endogenous construct is shown by the value of f2 (Gotz & Krafft, 2010). Table 5 thus shows that green innovation has a greater influence on environmental performance than corporate social responsibility.

Table 5

	f-square
Corporate Social Responsibility <-> Environmental Performance	0.029
Corporate Social Responsibility <-> Environmental Performance	0.36

Discussion and Conclusion

This research study aims to look at the impacts of green innovation and corporate social responsibility on environmental performance in the commercial banks of Sindh, Pakistan. The study's conclusions showed that environmental performance and corporate social responsibility have a positive relationship. Moreover, a valuable model is being offered to employees working in commercial banks and policy makers by this study for managing CSR and GI in investigating the EP. This study can also help employees of commercial banks to make stronger their inside sources such as CSR and GI for enhancing EP. Additionally, financial performance of small and medium-sized businesses in Spain is significantly improved by CSR components like social economic and environmental concerns. However, contradictory results from the research of García, F.J.S. (2020) and Kraus & Rehman (2020), who found that EP is not influenced by the CSR in manufacturing firms of Malaysia but Dai, Siddik, and Tian, (2022) exposed that CSR has a favorable influence on EP in Bangladeshi banking institutions. The findings of this research study also showed that CSR has a positive and substantial effect on EP, proving that CSR cannot be disregarded because a crucial role is played by it in defining how well companies carry out, as evidenced by earlier research. Moreover, the banking industry's environmental performance is greatly influenced by corporate social responsibility as well. Banks can enhance their environmental performance by introducing green initiatives like online banking and customer service. Green technology also helps banks improve their environmental performance. Therefore, these results are similar to the previous studies of Dai, Siddik and Tian, 2022 (Orazalin, N2020) Bacinello; Tontini; Alberton, 2020, Hussain, Abbass, & Usman, 2022), Kraus; Rehman,; García, 2020). In addition, The Legitimacy Theory, which holds that banking institutions that participate in CSR activities are required by regulatory standards and social pressure to spend money on CSR initiatives that promote environmental sustainability and social acceptance in businesses. This finding is corroborated by this theory (Guang-Wen; Siddik, 2022; Indriastuti, Chariri, 2021; Suttipun ; Lakkanawanit, Swatdikun, Dungtripop, 2021. Furthermore, this study's results support the notion

that green innovation has a positive effect on environmental performance because it's thought to exist a significant indicator of how well banks manage the environment while considering corporate social responsibility (CSR). Therefore, this conclusion is relating to the research by Hussain, Abbass, & Usman (2022), El-Kassar & Singh (2019), Kraus & Rehman (2020) it was found that competitive advantage can be attained with the help of Green Innovation and in this way it also advances the previous literature.

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