| Research Article |

Impact of CSR and Environmental Sustainability Orientation on Environmental Performance of South Asian SMEs: Mediating Effect of Green HRM

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Abstract

Purpose – *There are plenty of studies investigating the impact of CSR and environmental sustainability orientation (ESO) on environmental performance however there have been a fewer attempts to evaluate the mediation effect of green human resource management (GHRM) amongst the CSR, ESO and environmental performance of SMEs particularly in the Southern context. In this purview, this current seeks to investigate the mediation effect of green human resource management in between the independent (CSR and ESO) and dependent variable (environmental performance).*

Design/methodology/approach *– Data was gathered from senior management of Pakistani SMEs – Southern context through questionnaire survey. A total of 400 questionnaires were used in the data analysis. The study utilized both SPSS 25.0 and Smart PLS 3.2.8 for data analysis.*

Findings *– The study concludes that there is a strong association between CSR, Green HRM and*

environmental performance. However, on the contrary, there is no significant influence of CSR on environmental performance. Consequently, the study main premises states that CSR, ESO and environmental performance significantly mediates by the green human resource management

Research limitations/implications *– The research only focuses on the SMEs sector particularly located in Pakistan – Southern context using the cross – sectional data. In addition to this, the current study considered only one variable i.e. green human resource management as a mediating variable. In this view, the future studies may consider large corporations as sample data and may also utilize the other mediating variables including environmental strategy and green competence as suggested by other studies.*

Practical Implications *– The current study findings offers significant ramifications for managers, decision-makers, and business experts by helping them to understand the typology amongst the ESO, CSR, green human resource management and environmental performance.*

Originality/value *– The current study enriches the existing literature by addressing the mediating effect of green human resource management (GHRM) in between CSR, ESO and environmental performance*

Keywords *– Green human resource management, Environmental sustainability orientation, Corporate social responsibility, Environmental performance, Pakistani SMEs*

Paper type *– Research paper*

Introduction

Human resource management (HRM) is a process to employ individuals, train and compensate them, and develop policies to retain them (Hamouche, 2021). According to Corp-Maco (2022) employers and workers are connected through HR departments which make sure that both parties have access to the resources they need to carry out their duties in a safe and efficient manner. If we talk about the progress of HRM as a field in last twenty years, its role is getting important day by day as it is also facilitates in the wellbeing of mankind. Hamouche (2021) argues that as time is passing business world is getting bigger day by day so it is shifting from traditional fiscal structure to a contemporary capacity-based economy and HRM is trying to increase consciousness in corporate groups on the importance of going green and applying many procedures to save the environment. However, recently an increased

attention has been diverted to understand the mantra of green human resource management. As the concept of green human resource management tends to capture the bigger picture whereby includes all the important HRM activities and policies that help to achieve the environmental sustainability goal (Ahmad, 2015).

According to Al-Swidi, et al. (2021) green HRM causes a great impact on the behavior of the employees of the organization. In a similar view, Yong et al. (2019) stated that the implementation of GHRM practices is quite helpful in aligning the business policies with the environment. The results of the study highlight the green employment and green education for sustainability. In the present era, there are numerous factors contributing to global warming, including air emanation, reserve reduction, hazardous materials, increased water and air pollution, energy consumption and climate change (Kraus et al., 2020). These environmental problems are growing swiftly not in any specific part of the world but in the whole world and because of it mankind is facing the biggest challenge (Akram et al., 2022). In addition to this, with respect to environment protection, it is very important to take necessary measures to control the pollution, renewing the resources, and try to eradicate those causes which are becoming the part of effecting environment. Scholars are trying hard to make common people understand through their researches that by designing the proper environment policies, businessmen can improve the performance in their business arena. Prior studies argue that most of the businesses assumed that their industrial activities will not be affected by the environment. But with the passage of time, they realized that they are becoming the threat for the environment of the world which leads the universe to destruction (Bresciani iet al., 2021; Bonneuil, et al. 2019). It is because of the reason that recently there are plenty of studies paying increased attention to understand the very concept of environmental sustainability orientation which leads to organizational effectiveness (Amankwah-Amoah et al., 2019).

Similarly, Sánchez-Camacho et al. (2022) declared that academicians as well as researchers are paying significant consideration to CSR and it is believed to be an important area for research. There is nearly $4 trillion has reportedly been spent on CSR (Social Investment Forum, 2014). Nevertheless, it is the foremost function of any organization to earn maximum profits but at the same time it is crucial for them to maintain a healthy balance profits and social gains (Hou, 2019). As such Hickle (2017)

that it would be a well-thought-out and progressively well-known exercise if CSR can be understood pertaining to environmental sustainability, performance and green HRM since in the current situation this theorization is much valued and has a great importance for organizations because of the awareness of the people for having better environment. (Arrive iet ial., i2019).

Amongst many organizations, Small and medium-sized companies (SMEs) nevertheless view as to be the backbone of any emerging nations but yet there has been a very few studies have been conducted in relation to the aforementioned key constructs which includes CSR, ESO, environmental performance and green HRM. Fawcett and Hampton (2020) mentioned that SMEs has seriously damage the environment in terms of energy usage and climate change but yet it is feasible for SMEs to help improve the environmental performance by engaging themselves into the CSR and green human resource activities because of the size and informal structure. Nevertheless, the behavioral integration of senior organizational teams promotes sustainability orientation (Jahanshahi & Brem, 2017). However, on the one hand, ESO is essential for enhancing organizational performance, the success of new enterprises, and financial performance, but on the other, SMEs in emerging economies facing cash restrictions and recognize that ESO is a possible additional expense. Literature supports this correlation because there aren't enough studies exploring the link between ESO and environmental performance (Adomako iet al., 2019).

Construction Small and Medium Enterprises (SMEs) contribute enormously to the global economic development. In Pakistan, it is considered as one of the important sectors for economy growth. It has been reported by Invest Pakistan Government (2022) that the construction industry contributes about 2.53% of the total GDP of Pakistan. It has also reported that this industry accounts for 7.61% of the labor force of Pakistan. Hence its importance in the economy of Pakistan cannot be ignored and despite its importance, its operations are responsible for the environmental degradation and are reported to contribute about 40% in the total greenhouse gas emissions (Darvazeh et al., 2022). According to Luciano et al., (2021) the construction industry has always been a target for environmental problems. So, there is a need for the construction industry to focus on improving its HR operations through incorporating CSR and green human resource management for achieving sustainability.

Keeping in view the increased recognition of green human resource management (GHRM) and its relation with key variables (ESO, CSR and environmental performance) in the current business and management literature, this study focuses to map the link of green human resource management with the key variables including environmental sustainability orientation, corporate social responsibility and environmental performance in the Pakistani construction SMEs context.

This article structure focuses on the following main areas: the subsequent section firstly highlights the relevant theoretical framework, pertinent literature, and the formulation of hypotheses with reference to ESO, CSR, Green HRM, and environmental performance. The next section covers the design of the survey, the demographic and sample, common method bias (CMB), and the results of the statistical analysis. After then the empirical results are presented and that of finally the paper presents the interpretation of the data, a thorough evaluation of the results in light of earlier research, theoretical and managerial implications, policy recommendations, constraints, and future study directions.

Literature Review and the Formulation of Hypotheses

Theoretical foundation – Resource – Based View (RBV)

According to the resource-based view (RBV) strategy any company's assets and capabilities should be assessed to establish its competitive advantage (Barney, 1991). The basic tenet of RBV holds that companies may gain a sustained competitive advantage by solving environmental challenges. The origin of RBV hypothesis expands on this tenet (Hart, 1995). The natural RBV theory is employed in the creation of research models. The well-known natural RBV theory is a method for evaluating sustainability that makes use of the resources and abilities found in the environment (Hart, 1995). The RBV hypothesis states that a company's resources and skills are evaluated along with its environmental performance (Arshad, 2021). However, there are certain problems with the RBV concept (Hart, 1995). The RBV hypothesis, for instance, minimizes the significance of the company's real location or internal activities. A few decades ago, when it was obvious that the environment should be taken into account when analyzing sustainable competitive advantage, the absence of this seemed reasonable or comprehensible. ESO and CSR, two essential business instruments, are thereby used in this study to

evaluate environmental performance.

According to Le et al, (2021) ESO is essential in determining advantage over rivals. Additionally, the literature said that CSR social, environmental, and economic elements could be evaluated using the natural RBV theory to determine an organization's success (Hussain et al., 2022). According to Rehman et al., (2020), the organizational capabilities and resources that went into lowering pollution resulted in higher profitability. The researchers also discovered that organizations' capabilities, use of natural resources, and strategies for pollution control all had an impact on how sustainably they performed (Saether et al. 2021). Since previous studies had not studied the natural RBV theory in relation to GHRM, organizational resources (such as ESO and CSR) and environmental performance. It is therefore the present takes liberty to utilize resource – based view as the underpinning theory for this current study in order to the understand the relation in between the key variables as mentioned above.

Environment Sustainability Orientation, Green HRM and Environmental Performance

According to Pambudi (2022) the organizational approach supports operating business in an ecologically friendly manner - the ESO notion. The study claims that owing to environmental sustainability and organizational innovation currently faces additional difficulties and restrictions (Ogbeibu et al., 2021). The natural RBV concept states that businesses may run sustainably and gain a competitive edge at the same time (Hart, 1995). Businesses enjoy a consistent competitive edge when these products are offered in a welcoming environment because their efficacy leaps (Hart, 1995). It is impossible to exaggerate the importance of SMEs in the industrial sector to national growth (Afum et al., 2020). Market expansion, financial gain, social esteem, and a personal preference for exporting were recognized as the four main reasons for beginning a firm (Duan, C., Kotey, & Sandhu, 2021).

Businesses may have a higher chance of achieving stakeholder integration, which results in increased performance if they remove and recycle their trash. Additionally, a business will be able to keep its competitive advantage if it can create an environmental sustainability strategy to overcome the limitations of the natural environment (Danso et al., 2019). While at the same time the strategic direction is also essential for a firm to prosper (Grant 2021). Environmental ideas like environmental ethics and environmental education result in ecologically responsible behaviors and advantages in the

marketplace (Singh et al., 2019). A green entrepreneurial strategy in China considerably boosts performance in terms of both business and the environment (Zhang, Zhou, & Tian, 2022). The ESO might develop into a dynamic asset and gain a sustainable competitive advantage (Hart, 1995). ESO also significantly improves business performance (Roxas et al., 2017). We fill the void left by academics' disregard for ESO by using the natural RBV theory to assess environmental performance.

Relationship between CSR, GHRM and Environmental Performance

SME impact on the environment and society is (Westman iet al., 2021). Customers increasingly want eco-friendly products and services; therefore, CSR is receiving particular attention from researchers. The claim made by Santoro et al. (2019) that CSR garnered a significant amount of attention from practitioners and researchers lends credence to this viewpoint. Several studies have defined CSR phenomenon differently however due to its challenging nature there isn't a single definition that everyone agrees on (Orlitzky et al., 2011). CSR can be understood in the best manner as to maintain a healthy balance between profit and societal gains i.e. businesses must fulfill consumer expectations while developing their organizational plans and policies if they want to succeed in the modern marketplace. A company owes it to the community it serves to adopt strategies, make decisions, and carry out action plans (Bowen & Johnson, 1953). Literature suggests that corporate social responsibility (CSR) affects business performance that it significantly boosted a company's chances of success (Bacinello et al., 2020; Long et al., 2020; Orazalin, 2020). Despite this, CSR has minimal effect on environmental performance in major industrial businesses according to Kraus et al. (2020). To make sense of the murky relationship between CSR and environmental performance – further in – depth study is required.

Wong (2013) describes that CSR helps businesses learn about the environment, giving them a long-term competitive edge. Corporate social responsibility (CSR) is seen as an organizational resource having the capacity to influence environmental performance as per the natural RBV tenet (Hart, 1995) that urges further research on the connection between CSR and environmental management systems. According to Briones Peñalver et al., (2018), innovation is necessary for CSR initiatives to improve economic performance (2018). Chuang and Huang (2018) also discovered that green IT-related, physical, and human capital is significantly impacted by environmental CSR. Environmental awareness

and accountability are seen as essential components for SMEs (Veronica et al., 2019). The goal of this research is to close the gap left by the researchers' scant use of CSR as a standard for environmentally responsible HRM.

Employees who are aware of the need to protect the environment are referred to as "green employees" in several human resource management (HRM) practices (Luu, 2019; Pham et al., 2019, 2020). It covers a range of activities related to a worker's whole employment with a company, from hiring through retention (Kim et al., 2020; Tang et al., 2018). Green performance management, green performance recruiting and selection, green pay and incentive systems, and green training have all been recognized as potential GHRM strategies to raise employees' environmental awareness and support the company's sustainable operations.

Academicians assert that GHRM is essential for motivating staff to comprehend environmental concerns, share their views on such topics, and act in an ecologically responsible manner (Luu, 2019; Ogbeibu et al., 2020; Pham et al., 2019) In this case, GHRM practices like teleconferences, carpooling, online interviews, and recycling might all assist companies in reducing their carbon footprints (Ren et al., 2018; Tang et al., 2018). The advantages of GHRM, which include lowering waste, emissions, and pollution as well as improving a company's, reputation, have also been emphasized by academics (Ren et al., 2018) performance and competitiveness (Dumont et al., 2017; Tang et al., 2018).

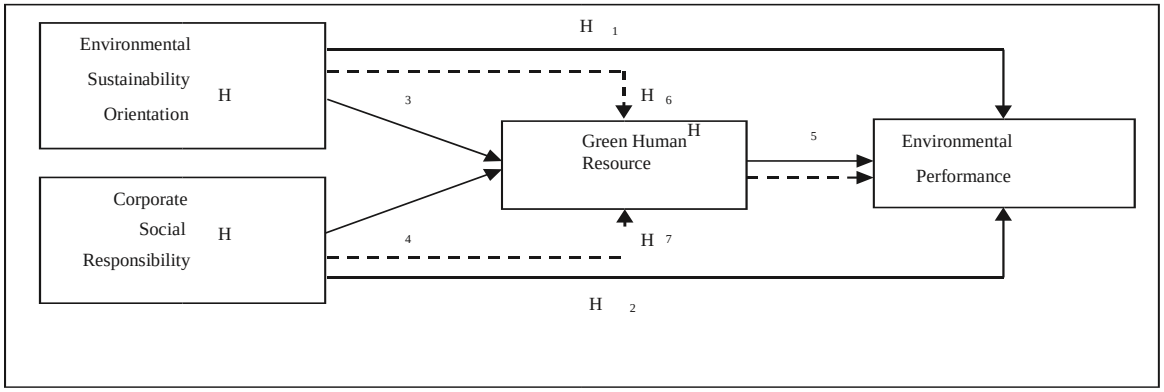
Green HRM; As a Mediator

Although garnered increased attention in the arena of sustainability approach and HRM practices, GHRM has only been the subject of a few studies. Additionally, these studies have largely ignored the interactions between GHRM and factors like creativity and leadership, instead focuses on the interactions between GHRM and other aspects like corporate social responsibility (CSR), environmental management strategies, the organization's environmental performance (Pham et al., 2020; Yiusoff et al., 2020; Molina-Azorin et al., 2021). Past studies focused investigating the on tourism and hospitality to comprehend GHRM's vital function in modifying employees' behavior to make them more environmentally conscious given its numerous positive consequences. The present study, therefore, examines how GHRM affects the way employees see their green talents and how it encourages their

green inventiveness. According to previous researches, GHRM is the use of a variety of HRM concepts, practices, and policies (such as training, development, assessment, and remuneration) It may force businesses to educate employees about environmental concerns (e.g., Ren et al., 2018; Tang et al., 2018). This paper has taken the liberty to choose GHRM as the primary predictor of employee behavior because it is an integral component of green-oriented strategy plans for promoting, sustaining, and enforcing ecologically sound performance in the travel and hospitality industry.

Theoretical Framework

Figure 1.1 is the depiction of the key variables showing the important relationship amongst independent variables, dependent and moderator variable



The present study framework argues that organizations may address environmental performance practices through incorporating ESO and CSR practices. Additionally, it is believed that ESO and CSR collaborate to help SMEs' efficient green human resource management which improves environmental performance. GHRM ought to be utilized as a balancing component. According to the Natural RBV hypothesis, which was validated by evidence, Green HRM significantly contributed to the understanding of the association among organizational resources (such as ESO and CSR) and environmental performance (Hart, 1995). Additionally, studies have demonstrated that environmentally responsible innovation considerably improves an organization's performance and expands its market share (Kraus et al., 2020). Organizational abilities have a significant impact on the relationship between resources and business success, according to RBV and natural RBV theory (Barney, 1991; Hart, 1995). In this study,

the relationship between environmental performance, CSR, and ESO was mediated by green HRM. Following are the research hypotheses for this study:

H1. Environmental performance is significantly influenced by ESO.

H2. Green HRM is significantly influenced by ESO.

H3. Environmental performance is significantly influenced by CSR.

H4. CSR has a significant impact on Green HRM.

H5. Green HRM has a significant impact on environmental performance.

H6. Green HRM significantly mediates between environmental performance and ESO.

H7. Green HRM significantly mediates between environmental performance and CSR.

Methodology

This quantitative study aims to ascertain how construction small and medium-sized firms' environmental practices are impacted by CSR and environmental sustainability. The dependent variables for this study are firms' environmental performance whereas independent variables are CSR and environmental sustainability orientation. GHRM is acting as a mediator

Questionnaire Scale for Constructs

The assessment criteria from Danso et al., (2018) was used to rate ESO (2019). CSR is measured using six items taken from Saboikro iet al., (2021). Three sources were used to create the six elements of based of Environment. To evaluate the effect of GHRM the criteria mentioned by Hameed et al. (2019) has been followed.

Population and sampling

The researchers selected the construction companies because they paid minimal attention to ESO, CSR, and GHRM when evaluating environmental performance. For data collection, a simple random sampling procedure was used by the researchers. According to Sekaran & Bougie (2016) a basic random sampling method ensures that respondents have an equal probability of being chosen. Numerous studies have shown that the fundamental random sampling approach produces results that are usually relevant

(Rehman, Bhatti, & Chaudhry, 2019).

The data was gathered from the managers and company owners of construction SMEs in order to understand the organizational structure of their firms. Because the researchers had adjusted items from past studies, a pre-test was done in this study to ensure that the instruments were content valid before data collection. Six individuals were selected, including three with academic credentials and three with practical experience in the industry. According to the results of the pretest, each construction item evaluates the corresponding construct. Following the pretest, researchers gathered information from subjects. Researchers increased the sample size in an effort to increase response rates and reduce measurement errors because the response rate is a crucial factor in social science investigations (Rehmani, Bhatti, et al., 2020). As a result, only 400 out of 1,000 questionnaires that were mailed to respondents were returned, and due to some erroneous data, 28 questions were omitted from the final analysis. The survey ensured the confidentiality and anonymity of the respondents due to the ethical consideration.

Analysis Tools

For the analysis the study utilized the SPSS 25.0 and Smart PLS 3.2.8. To determine the path relationship and variable validity the structural equation model has been used. With just a few simple keystrokes, SPSS, can edit and analyze extremely complicated data. It is one of the most well-known statistical programs. The study's hypothesis has been assessed using reliability, descriptive analysis, demographic analysis, regression, correlations, and mediation analysis, among other methods.

Common Method Bias

CMB, which might come from the parallel collecting of data on external and endogenous elements from a survey questionnaire, has the potential to happen (Kraus et al., 2020). CMB problem is commonly present in behavioral research that's why everyone should be aware of. According to Liang (2022) CMB is a measuring technique variable rather than an interesting construct is more likely to cause problems in behavioral research. Some researchers frequently view CMB in self-report surveys as a serious problem because it may overestimate the relationship between measured variables (Kjærvik, & Bushman, 2021; Wong et al. 2021). The research provides some operational tactics to lessen the effects of CMB (Kraus et al., 2020; Podsakoff et al., 2012). To ensure them that their data is protected (Kraus et al., 2020).

Researchers has also made sure that the questionnaire is simple to understand and error-free for participants (Podsakoff et al., 2012). This investigation determined the CMB that Podsakoff and Organ proposed using Herman's solitary component (1986). The data are regarded as being free of the CMB problem if the overall variance value is less than 50%.

Empirical Results

Hypothesized hypotheses developed in the preceding section are tested by using Smart PLS 3.2.8 and the structural equation modeling (SEM) approach is applied. Partial least square structural equation modeling (PLS-SEM) approach for both simple and complicated models is ideal, according to Hair et al (2014). Additionally, compared to CB-SEM, the PLS-SEM approach is more productive for estimation and promotes construct validity (Hair et al., 2014). Four reflecting sections make up the theoretical framework, where ESO and CSR are characterized by unique characteristics. PLS-SEM comprises two different types of models: measurement model and the structural model.

The measuring or outer model for the evaluation of reflective concepts includes four different test types: individual item reliability, convergent validity, internal consistency reliability and discriminant validity. According to Hair et al., (2014), proposals in Table 1, the threshold value is equivalent to 0.50, with the lowest and maximum factor loadings being 0.610 and 0.800, respectively (0.957). As a result, the requirements for individual item dependability were met. To determine the variables' composite reliability (CR), the internal consistency reliability was assessed. The CR value should be more than 0.60, according to Hair et al. (2014). Discriminant validity for calculation of the measurement model is the final requirement. Researchers refer to the criterion that two factors must statistically differ as having "discriminant validity" (Rehman, Bhatti, & Chaudhry, 2019). To assess the discriminant validity a common measurement was developed by Fornell & Larcker in 1981. To assess the discriminant validity a conventional metric compares the square root of AVE with the correlational values or compares AVE with squared correlational values. Convergent validity is the extent to which the same construct is perceptible across all of the research variables (Rehman, Mohamed, & Ayoup, 2019). The value of AVE should be more than 0.50, according to Almajali, & Masadeh, (2021).. According to Table 1, value 0.576 of the lowest AVE and the highest AVE value 0.733. This study meets the AVE standards in

that regard.

Table:1 Convergent Validity

Variables	Items	Factor Loadings	AVE	CR	A
Environmental Sustainability Orientation	ESO1	.736	0.604	0.951	0.88
	ESO2	.784			
	ESO3	.957			
	ESO4	.957			
	ESO5	.623			
	ESO6	.674			
	ESO7	.718			
	ESO8	.905			
	ESO9	.909			
	ESO10	.912			
	ESO11	.917			
	ESO12	.957			
	ESO13	.957			
	ESO14	.912			
	ESO15	.917			
	ESO16	.957			
	ESO17	.957			
Corporate Social Responsibility	CSR1	.728	0.733	0.721	0.71
	CSR2	.629			
	CSR3	.636			

	CSR4	.644			
	CSR5	.649			
Green HRM	GRHM2	.716	0.576	0.802	0.86
	GHRM3	.855			
	GHRM1	.610			
	GHRM4	.845			
	GHRM5	.810			
	GHRM6	.688			
Environmental performance	EP1	.765	0.611	0.770	0.87
	EP2	.803			
	EP3	.674			
	EP4	.813			
	EP5	.861			
	EP6	.796			
	EP7	.749			

Discriminant validity for the calculation of the measurement model is the final requirement. Researchers refer to the criterion that two indicators must statistically differ as having "discriminant validity" (Roemer, Schuberth, & Henseler, 2021; Rönkkö, & Cho, 2022). A common measurement to assess discriminant validity was developed by Fornell & Larcker in 1981. A conventional metric analyzes square roots of AVE with the co - relational values or analyzes AVE with squared co - relational values to assess the discriminant validity.

Table: 2 Discriminant validity (HTMT)

Variables	VIF	CSR	ES	ECP	SOP
CSR	1.792				

EP	1.009	0.643			
ESO	1.384	0.573	0.777		
GHRM	1.489	0.71	0.645	0.563	

The traditional measure of discriminant validity works poorly when factor loadings shift only little, as they do between 0.65 and 0.85. Roemer, et al., (2021) developed the heterotrait-mono trait ratio (HTMT) of correlation, a unique technique for assessing discriminant validity. The value of HTMT is 0.85 for a variety of variables and 0.90 for variables that are connected to those variables according to Rehman, et al. (2022). When the HTMT value for different constructs was more than 0.85, for discriminant validity the condition was not fulfilled. Table 2, the study complies with the HTMT standards

Results of the Hypotheses

Firstly, the outer model is run then the hypotheses are tested, given in the earlier sections of this study. The positive association between ESO and environmental factors is shown in Table 3 H1 was supported by the performance as (= 0.377, p 0.000, t-value = 1.03). Additionally, ESO supported H2 and was positively correlated with GHRM (= 0.134, p 0.012, t-value = 4.78). As shown by (= 0.292, $p < 0.05$, t-value = 0.015), CSR has little influence on environmental performance. Additionally, CSR has no effect on GHRM (= 0.140, $p > 0.05$, t-value = 0.49), and it does not support H4. Green HRM considerably improves environmental performance, according to data that validated the H5 hypothesis (= 0.40, p 0.05, t-value = 2.08).

Table 3: Hypothesis Results

Table:3 Hypothesis results

Hypothesis	Path	B-values	T-values	P-values	LLCI	ULCI	Results
HI	ESO => EP	0.377	1.03	0.000	0.541	0.872	Supported

H2	ESO => GHRM	0.134	4.78	0.012	0.033	0.254	Supported
H3	CSR => EP	0.292	.015	0.003	0.012	0.054	Supported
H4	CSR => GHRM	0.140	0.49	0.113	0.007	0.018	Not Supported
H5	GHRM => EP	0.240	2.08	0.015	0.217	0.461	Supported
H6	ESO => GHRM => EP	0.271	2.98	0.012	0.064	0.754	full Mediate
H7	CSR => GHRM => EP	0.132	3.90	0.044	0.005	0.086	Partial Mediate

Table 4: Variance accounted for (VAF) of the mediator variable for EP

IVs	DVs	MV	Indirect effect	Total effect	VAF (%)
ESO	EP	GHRM	0.037	0.024	71.35%
CSR	EP	GHRM	0.076	0.061	35.67%

The current study's objective was to assess how green capabilities impacted the correlation of CSR, ESO, environmental performance (VAF). VAF values between 20% and 80% are showing half mediation, VAF values over 80% are said to indicate complete mediation, and VAF values below 20% are said to indicate no mediation, according to Rehman, et al (2021). According to Table 4, Green HRM significantly influences ESO, with VAF values frequently falling between 20% and 80%. Green HRM also offers to gently soften the link among CSR and environmental performance because VAF values vary from 20% to 80%. Therefore, H6 and H7 are highly supported.

Predictive Relevance of the Effect Size and Model

According to past studies, computing Q2 is required to assess the model's predictive power (Geisser, 1974; Stone, 1974). When using Smart PLS, Q2 is calculated while wearing blinders. According to Chin (1998), Q2 should be larger than 0. A Q2 score between 0.02-0.015 implies a little influence, one between 0.15 and 0.35 denotes a medium impact, and a figure more than 0.35 denotes a significant predictive relevance, according to Cohen et al., (2013).

Additionally, some research studies suggested that in order to establish the R2 of endogenous components, the effect size (f 2) for every path in the inner or structure model should be assessed (Purwanto, & Sudargini, 2021). The f 2 value, according to Götz et al. (2010), depicts how much an exogenous variable has an effect on an endogenous variable. A moderate impact is one with f 2 value between 0.05 and 0.15, a medium impact is one with a f 2 value among 0.15 and 0.35, and a high impact is one with a f 2 value over 0.35, according to (Nagoya et al. 2021). Table 5 demonstrates that CSR has less of an influence on EP and green HRM. ESO also affects environmental performance more so than it affects green HRM. Green HRM has less of an effect on environmental performance.

Table 5: **The effect size of a model**

	EP	GHRM
CSR	0.095	0.129
ESO	0.792	0.064
GHRM	0.111	–

Discussion and Conclusion

The main objective of the study is to investigate the association among ESO, CSR, and EP and the mediating role of green human resource management. CSR and ESO are measured organizational resources that might be very significant in enhancing environmental performance (Pambudi, 2022). As ESO has a favorable impact on EP but does not determine it, the results do not support the natural RBV theory. According to Roxas et al. (2017) ESO is positively influenced by EP since it is thought to

be a crucial component of boosting organizational performance. Contrarily, this study's findings are interesting because CSR doesn't look at environmental performance and doesn't line up with the natural RBV idea (Memon et al., 2022). The findings demonstrate that CSR does not directly influence environmental performance, but management must nevertheless take it into account because earlier study has demonstrated that CSR significantly raises environmental performance (Orazalin, 2020).

ESO and CSR, on the other hand, are increasingly having a big impact on GHRM. Additionally, this study discovered that employing Green HRM is regarded as a strong predictor of environmental performance. ESO, CSR, and environmental performance have all benefited considerably from green human resource management. This was supported by the natural RBV theory because organizational skills greatly contribute to the explanation of the connection among organizational resources and environmental performance (Khan et al., 2022).

The findings demonstrate that ESO substantially enhances environmental performance. The findings support (Roxas et al., 2017) that ESO enhances business growth. The results are consistent with the natural RBV theory, which holds that businesses can both carry out their operations in a pleasant atmosphere and gain a persistent competitive advantage. ESO is additionally positively linked to sustainable human resource management. The results of the current study show that ESO cannot be disregarded in assessing EP. The researchers given limited consideration to ESO to measure green human resource management.

CSR performance has no visible impact on environmental performance. The findings contradict those of Bacinello et al. (2020), who found that CSR is essential for enhancing a company's success. Furthermore, he found that CSR is not thought to be a key determinant of a firm's performance. According to literature, CSR is strongly influenced by an organization's size because scale economies typically result in CSR (Javed et al. 2020). The findings contradict the natural RBV theory, which holds that environmental resources are essential for enhancing sustainable performance. The findings also show that CSR has a big impact on managing green human resources. The findings are comparable to those of Wong's (2013) study in that CSR enables businesses to build environmental competencies that give them a competitive edge. The performance of the environment is considerably improved through green

human resource management. These results support the assertion made by Rehman, Bhatti, and Chaudhry (2019) that organizational competencies have a strong positive influence on the performance of business. ESO, CSR, and EP are all heavily mediated by Green HRM. This study shows that environmental sustainability affects environmental performance both directly and indirectly. Additionally, CSR only has indirectly influence on EP. The natural RBV hypothesis claims that capabilities explain the association among sustainable performance and environmental resources.

Literature showed that ESO considerably enhances environmental performance in general. Despite this, CSR has little impact on how well an organization performs according to surroundings. Additionally, GHRM, which improves environmental performance, is greatly influenced by ESO and CSR. Finally, the association among ESO, CSR, and EP is strongly explained by green human resource management. This study shows that CSR does not affect environmental performance, although ESO and GHRM play important influence in improving it. Researchers and organizations cannot overlook the significance of CSR when analyzing their results because this construct has historically been crucial to corporate performance. In this specific instance, there is a chance that the respondent will not provide an appropriate response or that the CSR measures won't comprehend the replies. Researchers will be able to use CSR in the future to assess sustainable performance, and the findings may differ from those of earlier studies.

Implications of the Study

The theoretical contribution calls for a certain kind of study finding that can offer fresh perspectives on a phenomenon that is seen to be important for raising great revenue. It offers fresh perspective depends on empirical information about research constructs. For academicians, decision-makers in government, and practitioners, this study contributes enormously to the existing literature. The current study endeavors to map the connection amongst ESO, CSR, and EP, with GHRM serving as a mediating factor. Hence, significantly advances those fields. This study is amongst very few ones that incorporates ESO, civic responsibility, GHRM, and EP into a single research model. This report argues for further research on CSR, ESO, and GHRM because they account for around 59% of environmental performance. Management cannot disregard CSR owing to its significance in prior study, despite the

fact that it has little direct impact on EP. This work also contributes to the existing body of knowledge on the association between endogenous and exogenous elements in light of the natural RBV hypothesis. As a result, by sticking to the natural RBV hypothesis, this develops an active research model.

This research improves EP by exploring how CSR, ESO, and GHRM in construction businesses assess environmental performance. In order to attain an environmental performance, construction organizations may manage their ESO, CSR, and green human resource practices, according to the current study. The findings indicate that measuring environmental performance is not much impacted by CSR, but when GHRM was applied, CSR and environmental performance outcomes changed. According to multiple earlier studies, CSR has a significant influence on corporate success, thus managers of construction enterprises cannot ignore it while evaluating EP (Alrowwad et al., 2018; Javed et al., 2020; Dhar et al., 2022; Naseem et al., 2020; Zhang, & Berhe, 2022).

The current study findings have significant ramifications for managers, decision-makers, and business experts. The main aim of the current research model is to provide construction companies with information about how ESO, CSR, and Green HRM affect environmental performance. Researchers and practitioners have focused on the phenomena of EP in recent years. Furthermore, they may employ the EP's present research model in developing nations to decrease waste, preserve energy, lower emissions, and enhance the organization's image, save water, and ultimately cut nonrenewable chemicals, material and components that lead to improved EP. ESO directly affects environmental performance and has gained management attention. Furthermore, the findings show that CSR has no effect on EP directly. The results, however, do not imply CSR should be disregarded because earlier studies (Orazalin, 2020; Naseem et al., 2020) have shown that CSR considerably raises business performance. Additionally, CSR and ESO have a big influence on Green HRM, which enhances environmental performance. When making decisions to gauge EP, managers of construction enterprises should focus on CSR and ESO, and green human resource management.

Recommendations, Limitations and Future Research Directions

The management should develop regulations based on the business's goals. To accomplish the corporate goal of enhancing EP, management should create policies to cut down on waste and emission, limit

pollution, conserve energy and water, utilize less nonrenewable resources, components, and chemicals, and improve the organization's reputation. In spite of the fact that CSR doesn't provide useful results, this research argues that academics and companies emphasize ESO, CSR, and green competency when assessing EP.

This study contains certain gaps that may be filled in other future research studies. The researchers are unsure whether ESO, CSR, and green human resource management in construction enterprises produce comparable results over a longer period of time because this study used a cross-sectional methodology. Thus, in future it can be used to evaluate if their findings are consistent or varied. Future studies may also collect data from large corporations to compare the outcomes to those with the current study findings. Additionally, this study uses ESO, CSR, and Green HRM to assess EP. Future research might examine whether or not CSR significantly affects environmental performance by using environmental strategy and green competence as a mediating variable. Finally, the construction SMEs represents a distinct and varied culture of Pakistan. The same research model however, may be evaluated in both emerging and wealthy countries and can include manufacturing enterprises to see disparities in findings in order to provide fresh perspective.

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