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# Green HRM Practices, Environmental Knowledge and Corporate Social Responsibility in Higher Educational Institutions

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## Abstract

Green HRM implementation in HEIs is crucial for environmental sustainability as well as for the institutions overall performance, reputation, and capacity to educate the next generation for a more sustainable future. By encouraging environmental friendly workplace behaviours and preserving resources, green practises and CSR practices can assist to lessen this impact. Data for this quantitative study was gathered from 120 employees of Pakistan's educational institutions, including staff and faculty members. Utilizing Smart-PLS4 and SPSS-24, the analysis was carried out. Results showed that green HRM practices have a favorable impact on employees' green behavior. While corporate social responsibility and knowledge of the environment plays mediation role in enhancing green HRM practices and intervenes the relationship between employee green behaviors. All of the hypotheses were supported. The study's conclusions have policy implications for HEIs, highlighting the necessity of institutional policies that support GHRM practices, environmental education, and CSR initiatives to encourage sustainable behaviors among staff members**.**The outcomes of this research will extend the knowledge about GHRM and employee behaviour as well as to the creation of focused strategies that HEIs and other organisations may use to promote a sustainable culture.

**Keywords**: Green Human Resource Management (GHRM), Environmental Knowledge (EK), Employee green behavior (EGB) and Corporate Social Responsibility (CSR), Higher Educational institutions (HEIs).

## 1. Introduction

Sustainability of the environment is now crucial to society and businesses. The frequency and intensity of natural disasters, climate change, and the depletion of natural resources have all

increased (Ojo, Tan, and Alias 2022). The current, severe state of the environment is caused by excessive trimming trees, the burning of fossil fuels, and releases of carbon monoxide from human and organizational activity. Governments, particularly those of poorer nations, have vowed support for international initiatives and put legislation in place to encourage businesses to embrace environmentally responsible practices in an effort to lessen these effects. Energy-saving, office supply-reduction, and recycling are ways to reduce carbon emissions. Employee environmental performance and attitudes affect green efforts in firms (Dakhan et al. 2020). Malaysia's 11th and 12th National Plans prioritized environmental sustainability in their initiatives like AGENDA 2030 (Fawehinmi et al. 2020). Thus, many companies are adopting green efforts to minimize environmental impact. Green human resource management (GHRM) integrates environmental themes into HRM. Organizations integrate environmental sustainability with HR planning in GHRM. Beyond typical HRM, this technique emphasizes employee environmental responsibility. Recruitment, development, performance evaluation, and employee engagement comprise this framework (Alshaabani, Naz, and Rudnák 2021). The organizations of present decades have posed environmental challenges based on sustainable practices and concern for global environmental issues in human resource management and organizational settings (Saeed et al. 2019). Methods that are considered sustainable are the ones that involve energy conservation, waste reduction, eco-friendly products, and conservation (Kim et al. 2019). It estimates social and environmental responsibilities. Employee perception can change regarding the value of the company and its goal in the long run (Ahmed et al. 2020). In the HEIs, study of the employees is important since environmentally aware graduates may become agents of social change in society (Dakhan et al. 2020).

In particular, the study investigates the role of GHRM in influencing green behavior in the employees of HEIs. Furthermore, this study will investigate the mediating effect of environmental knowledge-CSR. An organization's social, ethical, and environmental commitments made through CSR may have a bearing on the sustainability of the organization's workforce (De Roeck and Maon 2018). Employees' behavior may be influenced by their understanding of the environment and sustainability, as posited by Zhao, Liu, and Sun (2020). This study will explore how GHRM influences HEI's employees' green behavior. It can reflect the employees' attitude and sustainability to an organization that has concern with ethical, social, and environmental issues (De Roeck and Maon 2018).

Environmentally responsible GHRM practices can improve HEI's and other organizations' employee engagement and well-being (Alshaabani, Naz, and Rudnák 2021). Green HRM practices would help the HEIs in their move towards sustainability and teaching students to be environmentally responsible, decision-makers, and change agents in the future (Ojo, Tan, and Alias 2022). The study is driven by the fact that there is limited research conducted in the educational sector of Pakistan in terms of green human resource management (GHRM) practices and employee green behavior, and the mediation effect of environmental knowledge and corporate social responsibility. Environmental sustainability, performance, reputation, and capacity to teach the next generation for a sustainable future are some of the reasons which require HEIs to engage in green HRM (Pham, Tučková, and Chiappetta Jabbour 2019). Like all organizations, HEIs emit carbon. Green HRM can reduce this impact by promoting eco-friendly workplace behaviors, reducing waste, and conserving resources (Nabi and Akter 2021).

The benefits to the environment, finances, reputation, and employees themselves are all part of the practical significance of implementing green HRM practices and encouraging employee green behavior. Further, HEIs with a proactive approach to implementing green HRM practices frequently have improved reputations (Aboramadan 2022). This might help with fundraising and forming alliances with organizations that share their values. It can also draw in environmentally aware academics, staff, and students. These procedures are crucial for businesses hoping to prosper in a society that values the environment since they are in line with broader cultural trends and expectations.

The study will try to answer the following questions by giving more information:

Q1: Is there a link between GHRM and EGB?

Q2: Does environmental knowledge (EK) play a part in the connection between green HR management (GHRM) and green behavior (EGB) among employees?

Q3: Does CSR act as a mediator for GHRM and EGB?

# 2. Literature Review

### Green Human Resource Management (GHRM) Practices

Shah (2019) defined Green HRM as green employee interactions, training, compensation planning, and hiring. Siyambalapitiya, Zhang, and Liu (2018) added green employee complaint management to green human resource management. Higher education can benefit from green HRM. They could minimize the university's environmental impact and electricity costs. They can attract sustainability-minded teachers and students, increasing the university's reputation. Green HRM also improves employee motivation and productivity (Siyambalapitiya, Zhang, and Liu 2018). Environmental awareness training for staff examples include eco-friendly workplace products and employee incentives to lessen their environmental impact (Shah 2019). According to Rubel et al. (2018), GHRM can help organisations become more sustainable and environmentally friendly. GHRM cares about the long-term well-being of society, the economy, and the environment (Fawehinmi et al. 2020).

### Hypothesis Development

#### *2.1. Green Human Resource Management (GHRM) Practices and Employee Green Behavior*

Ojo, Tan, and Alias (2022) found that employee green behavior reduces or increases environmental impact. Environmentally conscious efforts are sometimes called pro-environmental or sustainable. Environmentally sustainable growth in enterprises depends on employee green behavior (EGB). Saeed et al. (2019) defined EGB as employee behavior that promotes environmentally sustainable growth.

Aboramadan (2022) claims that GHRM approaches, especially when personnel have strong environmental values, might improve environmental performance by cultivating their environmental enthusiasm. Pham, Tučková, and Chiappetta Jabbour (2019) stated that Green HRM increases employee environmental commitment and Green Behavior. Green HRM aims to educate employees on environmental management (Tang et al. 2018). Organizations should improve their environmental sustainability. The focus has led to improved staff tasks (Kim et al. 2019). The above review suggests:

**Hypothesis 1:** Green Human Resource Management practices are positively linked to employee green behaviour.

### *2.2.Green Human Resource Management (GHRM) Practices and Environmental Knowledge*

Employees' awareness of environmental issues is referred to as environmental knowledge, or EK. This information may include the factors contributing to climate change, the consequences of pollution, and strategies for mitigating environmental impact. Research has indicated that people's comprehension and awareness of environmental challenges are lacking, despite the efforts to disseminate environmental knowledge (Dakhan et al. 2020). According Fawehinmi et al.(2020), Green human resource practices (GHRM) have a good effect on environmental responsibility. Chaudhary (2020) addressed about how employees' engagement in environmental initiatives is impacted by their awareness of the environment.

Green HRM practises will have an effect on employees' environmental understanding (Tang et al. 2018).The establishment of environmental recruiting and selection, performance management, rewards, as well as participation policies to advance the conservation of the environment, education, and training improves employee environmental knowledge, Increases employee realization regarding safety of environment and also to make employees familiar with significance of greening at workplace (Zhang et al. 2019). As a result, the following hypothesis is made:

**Hypothesis 2:** Green Human Resource Management practices are positively linked to environmental knowledge.

According to Saeed et al. (2019), green human resource management practices have a bigger effect on employees' green behaviour as they learn more about the environment.Rayner and Morgan (2018) said that all of these things make a company more environmentally aware so that workers can do EGB.Rayner and Morgan (2018) has done a research on employee behaviour and environmental knowledge? The findings indicated that environmental knowledge, which employees possess and which motivate employee behaviour, is said to be awareness of the challenges and solutions to those environmental concerns. Having a thorough understanding of environmental problems and their solutions will encourage employees to act in a pro-environmental manner (Stephenson 2021). Environmental

awareness also increases employees' concern for keeping up with solutions to environmental problems (Veerasamy, Joseph, and Parayitam 2023). Therefore, above discussion suggests:

**Hypothesis 3:** Environmental Knowledge is positively linked to Employee Green Behaviour.

### *2.3. Role of Environmental Knowledge as a Mediator between Green Human Resource Management (GHRM) Practices and Employee Green Behavior*

According to literature analysis, environmental knowledge plays a role in the association between green HRM and EGB (Fawehinmi et al. 2020).The dearth of research examining the mediating role between green HRM and EGB was highlighted by Ren, Tang, and E. Jackson (2018). Ren, Tang, and E. Jackson (2018) explored that employee thought is important for green HRM because it impacts how well EGB works. For green HRM practices to have an effect on the performance of green jobs, people need to have good interpersonal skills and understanding of the environment. Because people's actions show how much they know about the environment, green HR management that helps people learn more about it is the same thing as encouraging them to act in ways that are better for the environment (Stephenson 2021). The subsequent argument is put forth:

**Hypothesis 4:** Employee green behaviour and green human resource management are mediated by environmental knowledge.

### *2.4. Green HRM and Corporate Social Responsibility*

CSR is how organizations deal with social and stakeholder problems (Freitas et al. 2020).Su and Swanson (2019) explored that green HRM has an effect on CSR and GHRM supports CSR and ecology. GHRM is important for the long-term success of a company. It has been explored by Ojo, Tan, and Alias (2022) that socially responsible HRM practices makes GHRM and CSR better. Green HRM is good for CSR practices in higher education. CSR is more than just collecting money for charity. To change communities and societies, you need to combine business success with morals. A lot of companies show their CSR by making the workplace fun and healthy. Many companies are starting to use CSR because it improves the health and happiness of their workers. Malik et al. (2021) found that workers are more likely to take part in environmental projects if they think their bosses are doing them. A nice place

of work makes workers happier and encourages them to care about the world. In light of this, discussion suggests:

**Hypothesis 5:** GHRM practices are linked to CSR positively.

### *2.5. CSR and Employee Green Behavior*

CSR can motivate people to act in a green way. Employees should do small things every day to make the world a safer and better place if more people learn about CSR projects (Konte, Xiaohui, and Younas 2020). Su and Swanson (2019) explored that organizations that encourage green actions make their workers more concerned about the environment. It is suggested that CSR makes employees more environmental friendly.

**Hypothesis 6:** CSR is linked to EGB positively.

### *2.6. Role of Corporate Social Responsibility (CSR) as a Moderator in the Relationship of Green Human Resource Management (GHRM) Practices and Employee Green Behaviour*

According to Khattak et al. (2021), the need for change in a more sustainable planet and performance over time is solely based on the importance of the CSR concept. Ali Khan (2022) investigated the effect of CSR activities on green IT endeavours. Even though multiple studies have shown that firms would only adopt green practices when a mandatory legislative framework is put in place, the debate over the voluntary adaption of CSR activities related to the adoption of green practices in any form continues. If a strong connection is discovered, the organizations can then successfully build comprehensive strategic plans to realize the objectives of environmental friendly corporate sustainability. This prompts us to provide our seventh hypothesis:

**Hypothesis 7:** Green human resources management and the employee green behaviour are in mediation through corporate social responsibility.

## GHRM Practices, Employee green behavior (EGB), Environmental Knowledge (EK) and Corporate Social Responsibility (CSR) and its link with Resource Based View Theory

Jay Barney (1991) proposed resource based view in "Firm Resources and Sustained Competitive Advantage" article. This theory investigated the relationship between business resources and long-term competitive advantage. According to resource-based theory,

organizations compete with one another based on their resources and competencies ( Barney, Ketchen, and Wright 2021).The similarity of the resources, alternatives, and capabilities of a company's competitors can be used to identify them (Bentamar, Taj, and Ourahou 2021). Whatever may be considered a strength for an organization is referred to as a resource (Bentamar, Taj, and Ourahou 2021). Strategically using internal strengths to capitalize on environmental opportunities and mitigate external threats drives long-term competitive advantage (Helfat et al. 2023). Bhandari, Ranta, and Salo (2022) stated that a company's assets are its competitive advantages and help it achieve its vision, purpose, strategies, and goals. Organizational effectiveness based on resources is assessed using the resource-based technique ( Bentamar, Taj, and Ourahou 2021).

**Link between RBT, GHRM, and EGB:** RBT shows how organizational resources and skills interact. Green HRM and employee green behavior are linked since HR regulations promote sustainability. Resource-Based Theory (RBT) posits that firms leverage unique and valuable resources and capabilities to gain a competitive edge( Bentamar, Taj, and Ourahou 2021). RBT values employees' abilities, knowledge, and behavior, according to (Bhandari, Ranta, and Salo 2022). Equipment, structures, human capital, technology, and brand reputation ( Helfat et al. 2023). RBT says unique and valued resources give organizations an edge (Luján Salazar 2017).

**Link between RBT & EK**: Environmental expertise can assist an organization to develop and implement sustainability plans, saving money, decreasing environmental impact, and increasing market position ( Barney, Ketchen, and Wright 2021).According to RBT, unique, hard-to-replicate resources provide organizations an edge. HR's environmental knowledge gives it a sustainability edge over competitors (Utami and Alamanos 2023).

**RBT and CSR relate**: Green HRM principles enhance environmental consciousness and sustainability and CSR activities that promote sustainable research and community participation do so (Bhandari, Ranta, and Salo 2022). Resource-Based Theory (RBT) stated that HEIs can gain and retain a competitive advantage by exploiting their unique resources and competences. Green HRM and CSR leadership can help universities attract staff, students, research funding, and collaborations.

# 3. Research Methodology

Purposive survey research was the approach we took in doing our research. In survey research, questionnaires and interviews are the most often used methodologies. The questionnaire's main goal was to collect data from respondents for future study ( Syed Muhammad Sajjad Kabi 2016). Our study's questions were closed-ended, allowing participants to select responses from a list of provided possibilities. The study aims are depicted in the questions. The G-power formula, which investigated the idea that 107 should be our minimal sample size, was used to determine the sample size. Because of its most recent computations for sample size verification, the G-power formula was used (Kang 2021). We have collected 120 employees' data including faculty members and staff members of educational institutes of Pakistan. For data collection, we have circulated the online questionnaire link as well as data was physically gathered. The population of the study consisted upon the "Higher Educational Institutes in Pakistan" Whereas the data was collected from those top 3 universities which have high rankings in implementing green HRM practices in Pakistan. This information was obtained from list provided by "World University Rankings UI Green Metric 2020" performing Green practices.

We have used a 5-point Likert scale for our questionnaire. Our survey was divided into five sections. The respondent demographic profile was covered in the first section. Green HRM practices were the subject of the second section's questions. Environmental knowledge made up the third section. The fourth section covered questions regarding corporate social responsibility, and the last section looked at questions about employees green behaviour.
For Green human resource management practices, questionnaire by (Brockner et al. 2006) was used. It included 7 questions. For environmental knowledge, questionnaire by (Gatersleben, Steg, and Vlek 2002) was used. It includes 3 questions. For corporate social responsibility questionnaire by (Kim *et al.*, 2019) was used. It included 5 questions. For Employee green behavior, questionnaire by (Blok et al. 2015) and (Iqbal et al. 2018)was used. It included 9 questions. Table I is given at the end in appendix.

# 4. Data Analysis and Findings

## Demographic Statistics

Nearly 66% of the responders were men, according to the demographic analysis. The majority of responders were employed by public universities.77% of respondents were faculty members, and 23% of respondents were staff members. 83% of the participants were permanent members of these universities. Of the employees, 4.7% were between the ages of 20 and 29; 29.2% were between the ages of 30 and 40; and the bulk of respondents (66.7%) were above the age of 40. 1.7% of employees had experience ranging from one to three years, 10.8% of respondents had experience spanning four to five years, and 87.5% of employees had experience exceeding five years. Table II given at the end shows this detail.

*Common Method Variance and Multicollinearity*

One of the biggest problems facing quantitative researchers nowadays is common method bias (CMB), which compromises the validity of studies. Memon et al. (2023) stated that when data is being collected consistently across all components (independent, dependent, moderating, and mediating), common method variance (CMV) occurs. Since two or more constructs are measured using the same procedure, their correlations are skewed (Lukman et al. 2023). A Harman one-factor analysis is done after the data has been collected to see if a single factor can explain the differences in the data (Tehseen, Ramayah, and Sajilan 2017). In our data, CMV is 28% which is less than 50% and our data lies within the acceptable range.

When two or more independent factors in a statistical model are strongly linked to each other, this is called multicollinearity. It might be hard to understand the regression data and the model as a whole because of this (Lukman et al. 2023; Shrestha 2020). Multicollinearity exists if tolerance level is greater than 4 and less than 0.25. VIF value in our data is 1 and tolerance level is 1 which is greater than 0.1 which means lies within the acceptable range. Table III indicates these values in Appendix.

## PLS Algorithm

To see the results of impact of green human resource management practices on employee green behaviour and mediation effect of environmental knowledge and corporate social

responsibility, Smart-PLS4 software was used. The figure 1 shows the model for PLS-Algorithm.

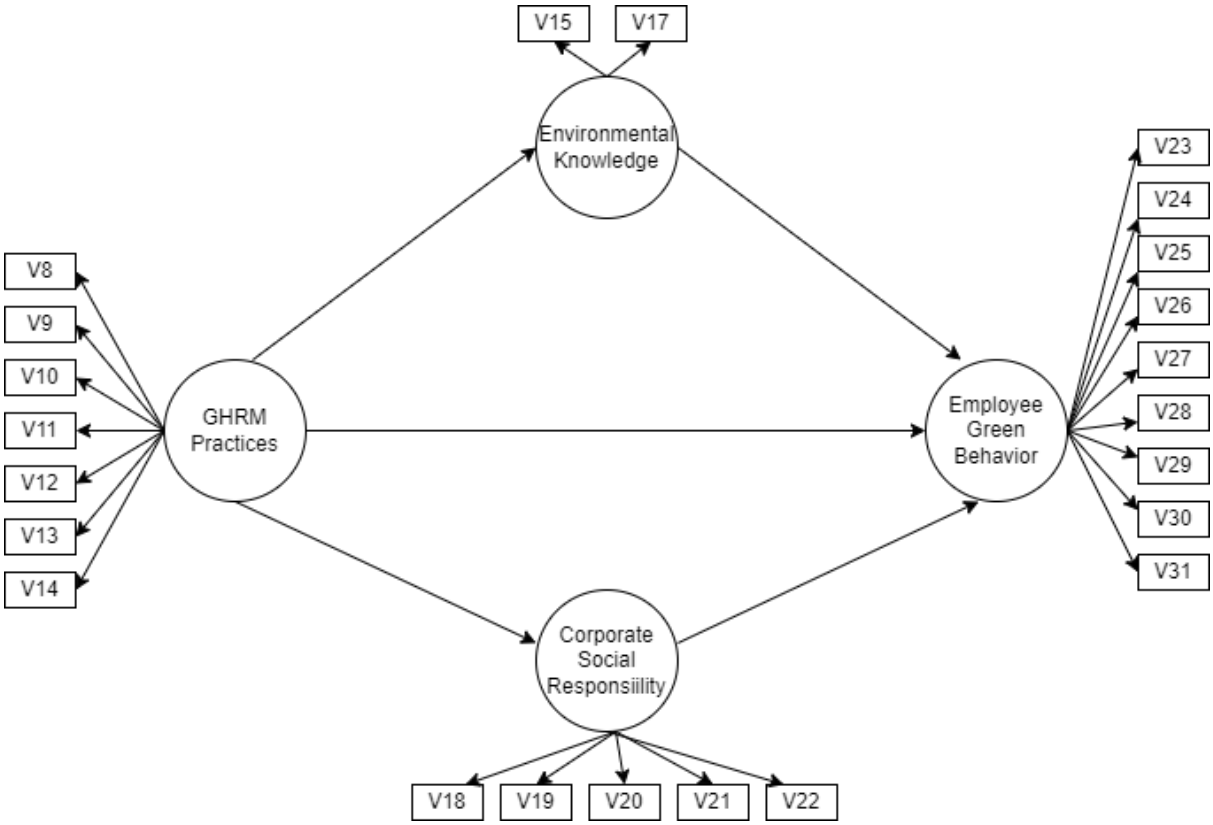


**Figure 1:** PLS-Algorithm Diagram (Authors' Sources)

**Model Measurement**

For the measurement and structural model findings, Smart PLS-SEM is one of the most suitable and established approaches. A structural equation model evaluates the dependability of a research model. Factor loading, extracted average variance, and composite reliability were used to assess the reliability. The threshold level for average variance extracted was set at 0.5, for composite reliability (CR) at 0.7, and for factor loading at a value greater than 0.5. Because variable V16's composite dependability was less than 0.5, it was eliminated. These data and the measurement model evaluation are displayed in Table IV. Every one of our values falls between the permissible range or exceeds the threshold level.

Figure 2 provides a detailed depiction of the current study's measuring model. The model's dependability is demonstrated in Figure 2 via factor loadings. All of the values for composite reliability are greater than 0.7. For example, the number for CR of green HRM practices is 0.938, which is greater than 0.7. Every variable and every item in green HRM Practices has a value bigger than 0.5.For example, V8 (0.598>0.5). The model's validity is demonstrated by

the AVE values for green HRM practices, EK, CSR, and EGB, which are, respectively, (0.690, 0.857, 0.883, and 0.621> 0.5) and fall within the acceptable range.

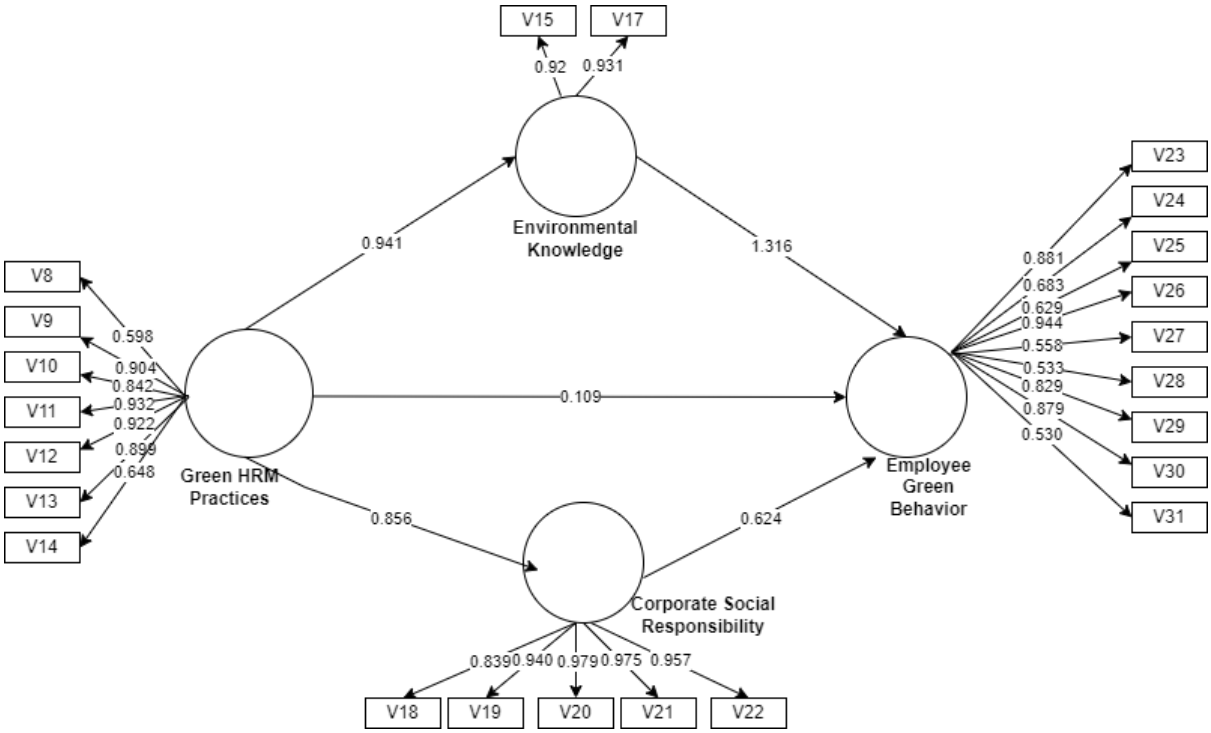


**Figure 2:** Measurement Model (Authors' Sources)

**Heterotrait-Monotrait ratio (HTMT)**

The relationship between heterotraits and monotraits is used to figure out how closely two or more constructs are linked. These numbers ought to be smaller than 1, which denotes how different the constructs are from one another. The heterotrait-monotrait ratios of our constructs—green HRM practices, environmental knowledge, corporate social responsibility, and employee green behaviour—are displayed in Table V at the end in Appendix.

**Structural Model**

Table VI shows all of the direct results of the constructs. The route coefficient between the independent variable and the dependent variable is looked at in the direct effect. Implementing green HRM practices shows employees how to act in a green manner. The t-value is 2.614 and the p-value is 0.04. This means that the finding is true. The first hypothesis (H1) we put forward is accepted. Next, we look at the case of environmental knowledge. The values are the same: t-value of 7.662 is greater than 1.96, which means the results are significant; p-value = 0 means our second hypothesis, H2, is also true. Then comes the third hypothesis i.e. H3. It indicates the relationship between environmental knowledge and

employee green behaviour. Its p-value of 0 indicating its acceptance. So is the case with relationship between GHRM practices and CSR and then the relationship between CSR and Employee green behaviour. The p-value lies within the acceptable range i.e. less than 0.05 and acceptance of our hypothesis H5 and H6.

In the specific indirect effect table, you can see how the forms influence each other. When the mediation analysis is done on Smart-PLS, it shows important effects for green HRM practices, including environmental knowledge and green behavior from employees. The fact that the P-value is less than 0.05 shows that green HRM practices, when combined with environmental knowledge, make employees more likely to act in a green way. It leads to the fact that there is a significant relationship between the dependent variable (Employee green behavior) and the independent variable (Green HRM practices) when Environmental Knowledge is present. This is called a partial-mediation path. It proves that hypothesis 4 is true.

This is the mediation study that was done on Smart-PLS. We check to see if there is a link between the dependent variable (employee green behavior) and the independent variable (green HRM practices). In this case, it depends on whether or not our hypothesis H5 is true. After that, we look for other. There is a significant indirect relationship between Green HRM Practices, Corporate Social Responsibility, and Employee Green Behavior (P-value is less than 0.05), which means that when Green HRM Practices are followed by Corporate Social Responsibility, Employee Green Behavior goes up. It proves that there is mediation in this link and supports hypothesis 7.

## 5. Discussion

A Resource Based View Theory study examined how educational institutions' personnel implement green HRM practices. Businesses adopt green human resource management (GHRM) because it's trendy. Where does green human resource management (GHRM) fit into green worker behavior? That's what this study sought. The study also examined the importance of environmental knowledge as a bridge. Corporate social responsibility may aid this study. The report advised higher education professionals to apply GHRM, care for the environment, and do CSR. GHRM makes employees green (EGB). Motivated and happy employees perform better and help firms survive. Second, being eco-friendly at work

improves mood and solves numerous issues. Let employees participate in CSR projects to boost the organization's image and minimize expenditures. Our hypothesis H1 was correct. Green human resource management (GHRM) affects green employee behavior. GHRM methods assist create and implement green workplace strategies. So they can help their businesses and the planet (Shafaei, Nejati, and Mohd Yusoff 2020). The resource-based perspective shows this claim a company's long-term competitive edge stems from its distinctive and useful resources and talents that rivals can't replicate or replace (Bhandari, Ranta, and Salo 2022; Bentamar, Taj, and Ourahou 2021).

Companies hire, educate, and retain environmentally conscious employees to achieve their green goals. GHRM actions including green workplace norms, training, and educating employees how to be green enable unique instruments (Fawehinmi et al. 2020). This supported our second assumption that GHRM and EK are excellent. Also correct was our third hypothesis, H3, that environmental friendly professionals know a lot about the environment. Learn how to reduce your impact on the ecosystem, which benefits everyone. By supporting green hiring and selection, performance management, rewards, and participation, companies can help their employees learn more about the environment, understand the need to protect it, and appreciate the benefits of going green at work.

The fourth notion is that GHRM activities greatly influence workers' green behavior by creating environmental awareness. Green HRM and other outside influences change employees' behavior to meet an organization's environmental aims. People believe these outside influences affect workers' mental talents and personal attributes, which affects EGB success (Ren et al., 2018). EGB prioritizes environmental awareness. Workers must be willing to learn a lot about the globe. This includes locating environmentalists and training them how to do things sustainably. Green HRM promotes eco-friendly behavior and environmental awareness because people's actions reflect their knowledge.

Our fifth hypothesis. It links CSR and green HRM (Freitas et al. 2020). GHRM teaches workers how to care for the environment and creates greener HR practices. These methods reduce waste and pollution, increasing revenues. People and businesses benefit from GHRM (Hameed, Mahmood, and Shoaib 2022).The sixth hypothesis, H6, stated that workers' green behaviors significantly impact CSR. CSR usually links businesses, society, people, and the environment. Green firms have a social responsibility to support EGB and its incentives,

which would save costs and streamline operations. In another study, Khattak et al. (2021) found that CSR affects EGB and green behavior. H7, our last hypothesis also got proved. GHRM policies and CR mediation make workers greener. This proved our findings were mediated. Rules, resource conservation, and environmental protection would preserve social rights and tasks under the GHRM.

Our study tried to answer the questions which we highlighted in introduction. Green human resource management (GHRM) employees were more environmentally conscious. GHRM teaches environmental awareness. CSR also requires workers to protect the environment. Resource Based View explains these results. GHRM, environmental knowledge, and CSR help HEIs promote long-term green behavior at work, according to the study. HEIs can build a sustainable work culture that improves their image and solves global environmental issues (Aboramadan 2022).

**Contributions of the Study**

The contribution of this study lies in illustrating how environmental knowledge mediates the relationship between GHRM and employee green behavior. It contributes to literature on the underlying processes mediating HRM procedures with sustainable outcomes. The study provides useful guidance for HEIs on how to improve employee environmental behavior through GHRM procedures, the diffusion of environmental knowledge, and CSR alignment. This can serve as guidance for sustainability offices and HR departments when developing successful sustainability initiatives. Further, this study could help HR managers and employers in hiring only those employees who have the vision of implementing Green practices and enthusiastic for taking CSR initiatives. Moreover, the study's conclusions have policy implications for HEIs, highlighting the necessity of institutional policies that support GHRM practices, environmental education, and CSR initiatives to encourage sustainable behaviors among staff members.

**Limitations of the Study**

To begin, the information came from just one sector: the educational industry. To make the results useful for a wide range of people, they should include data from other service sectors. Second, this study looks at how GHRM practices affect individuals. In the future, a study could look at how they affect organizations. GHRM practices, CSR projects, and green

behavior can also be carried out better if they are studied at the company level. On top of that, this study was cross-sectional. As GHRM does its work, it sees whether CSR efforts are working well or not at different times. This means that a future study could be done with a continuous focus. In addition, this study is quantitative one. This could make it harder for workers to give honest opinions about how much they know about the environment and how they should act in a green way. In the future, qualitative data can be used to give people more detailed comments on their experiences.

**Implications of the study**

Firstly, Higher education institutions ought to fund initiatives that increase staff members' environmental literacy. Both academics and employees should have access to these programmes so they may better comprehend and address sustainability-related issues. Further, the strategic value of GHRM in influencing employee green behaviour should be acknowledged by HEIs. They ought to create and put into practise GHRM procedures that support their sustainability objectives. This includes implementing environmental friendly hiring practises, including sustainability into job descriptions, and providing training and development courses that emphasise environmental knowledge and expertise. For continual progress, regular monitoring and feedback methods are crucial.

**Future Study Directions**

In future studies, to comprehend the complexities of GHRM implementation and its impact on employee green behavior, in-depth case studies should be conducted within HEIs, to look at employees' deeper perspective regarding green HRM practices, environmental knowledge and CSR initiatives. Future studies can be designed in longitudinal research to monitor the long-term effects of GHRM procedures on staff members' environmental behavior and knowledge retention. This can be useful in determining if the impact will last over time. Moreover, future rresearch should be expanded to compare how GHRM affects employee green behavior in various industries.This might provide light on the opportunities and difficulties unique to a given industry. Further, future research could eexamine how technology such as e-learning, might help HEI staff become more environmentally aware and ethical. It will be helpful in seeing at the integration of technology into GHRM tactics for better participation of faculty and staff members.

**Conflict of interest**

The authors confirm that no financial or personal conflicts of interest could affect this work. No funding or compensation was received for this research or article. We further affirm that we have no financial or personal affiliations that could skew these results or interpretations.

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# Appendix

**Table I: Measurements**

| # | Variable | Items | Source |
|---|---|---|---|
| 1 | Green HRM Practices (GHRM) | 7 | (Brockner *et al.*, 2006) |
| 2 | Employee Green Behavior (EGB) | 9 | (Blok *et al.*, 2015)<br>(Iqbal *et al.*, 2018) |
| 3 | Environmental Knowledge (EK) | 3 | (Gatersleben *et al*., 2002) |
| 4 | Corporate Social Responsibility (CSR) | 5 | (Kim *et al.*, 2019) |

**Table II: Demographic profiles of the participants (*N*=120)**

| Characteristics | Range/category | Frequency (%) |
|---|---|---|
| Gender | Male<br>Female | 79(65.8)<br>41(34.2) |
| Organization Type | Public<br>Other | 100(100)<br>--- |
| Employment Type | Faculty<br>Staff<br>Other | 93(77.5)<br>27(22.5)<br>--- |
| Employment Status | Permanent<br>Contract | 100(83.3)<br>20(16.7) |
| Age | 20-29<br>30-40<br>Above 40 | 5(4.2)<br>35(29.2)<br>80(66.7) |
| Work Experience | 1-3 years<br>4-5 years<br>Above 5 years | 2(1.7)<br>13(10.8)<br>105(87.5) |

**Table III: Multi Collinearity Diagnostics**

| **Coefficients**[a] | | | | | |
|---|---|---|---|---|---|
| | | | | | Collinearity Statistics |
| Model | Unstandardized β | Coefficients Std. Error | Standardized Coefficients Beta | Tolerance | VIF |
| 1 (Constant) | 24.781 | 0.699 | | | |
| GHRM | 0.498 | 0.40 | 0.757 | 1.000 | 1.000 |

a. Dependent Variable: EGB

**Table IV: Measurement Model Evaluation**

| **Latent Variables** | **Factor Loadings** | **CR** | **AVE** |
|---|---|---|---|
| **GHRM Practices** | | | |
| **V8** | 0.598 | 0.938 | 0.690 |
| **V9** | 0.904 | | |
| **V10** | 0.842 | | |
| **V11** | 0.932 | | |
| **V12** | 0.922 | | |
| **V13** | 0.899 | | |
| **V14** | 0.648 | | |
| **Environmental Knowledge** | | 0.923 | 0.857 |
| **V15** | 0.920 | | |
| **V17** | 0.931 | | |
| **Corporate Social Responsibility** | | 0.974 | 0.883 |
| **V18** | 0.839 | | |
| **V19** | 0.940 | | |
| **V20** | 0.979 | | |
| **V21** | 0.975 | | |
| **V22** | 0.957 | | |
| **Employee Green Behaviour** | | 0.927 | 0.621 |
| **V23** | 0.881 | | |
| **V24** | 0.683 | | |
| **V25** | 0.629 | | |
| **V26** | 0.944 | | |
| **V27** | 0.558 | | |
| **V28** | 0.533 | | |
| **V29** | 0.829 | | |
| **V30** | 0.879 | | |
| **V31** | 0.530 | | |

**Table V: Heterotrait-Monotrait Ratio**

| | CSR | EGB | EK | GHRM Practices |
|---|---|---|---|---|
| CSR | | | | |
| EGB | 0.596 | | | |
| EK | 0.981 | 0.875 | | |
| GHRM Practices | 0.885 | 0.858 | 0.768 | |

**Table VI: Direct Effect and hypotheses testing**

| Hypothesis | Direct Relationship | Original Sample (O) | Sample Mean | t-Value | P-Value | Results |
|---|---|---|---|---|---|---|
| H1 | GHRM→EGB | 0.109 | 0.098 | 2.614 | 0.04 | Supported |
| H2 | GHRM→EK | 0.941 | 0.944 | 7.662 | 0 | Supported |
| H3 | EK→EGB | 1.316 | 1.312 | 6.261 | 0 | Supported |
| H5 | GHRM→CSR | 0.856 | 0.86 | 6.088 | 0 | Supported |
| H6 | CSR→EGB | 0.258 | 0.284 | 5.621 | 0 | Supported |

**Table VII: Mediating effect of emotional Exhaustion (Specific indirect Relationship)**

| Hypothesis | Specific indirect Relationship | Original Sample (O) | Sample Mean | t-Value | P-Value | Results |
|---|---|---|---|---|---|---|
| H4 | GHRM→ EK → EGB | 1.238 | 1.24 | 6.042 | 0 | Supported |
| H7 | GHRM→ CSR→ EGB | 0.534 | 0.518 | 3.517 | 0 | Supported |