Majors: HRM

S.NO: H/8

Impact of Green Human Resource Management and Perceived Corporate Social Responsibility Activities on Pro-Environmental Behavior: The Role of Coworker's Pro-Environmental Advocacy

By:

Fatima Fazal Abbasi   *01-222202-022*

Supervisor:

Dr Syed Haider Ali Shah

Department of Business Studies

Bahria University Islamabad

Spring 2022

FINAL PROJECT/THESIS APPROVAL SHEET

Viva-Voce Examination

Viva Date: <u>1/8/22</u>

Topic of Research: Impact of Green Human Resource Management and Perceived Corporate Social Responsibility Activities on Pro-Environmental Behavior: The Role of Coworker's Pro-Environmental Advocacy

Names of Student(s):   Enroll #

FATIMA FAZAL ABBASI   01-222202-022

Class: MBA (HRM)

Approved by:

Dr Syed Haider Ali Shah

Supervisor

Ms. Madeeha Ali

Examiner-I

Dr Ameen

Examiner-II

Dr. Syed Haider Ali Shah

Research Coordinator

Dr Khalilullah

Head of Department

ACKNOWLEDGEMENT

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ANNEXURES

ABBREVIATIONS

GHRM	Green Human Resource Management
PCSR	Perceived Corporate Social Responsibility
PEB	Pro-environmental Behavior
HEC	Higher Education Sector

ABSTRACT

Teachers are perhaps most important building block of the society that can contribute positively in the development of future nation through their superior knowledge. The present study aimed to explore pro-environmental behavior of the teachers and the factor that are contributing towards it. For this purpose, a sample of 248 teachers was selected from the universities of Rawalpindi and Islamabad by using stratified random sampling. It was hypothesized that green human resource management and corporate social responsibility would positively predict pro-environmental behavior of employees. Moreover, it was also hypothesized that coworker's pro-environmental advocacy would positively mediates the relationship between GHRM and pro-environmental behavior of the employees; perceived corporate social responsibility and employee's pro-environmental behavior. The results of the study suggests that perceived corporate social responsibility and green human resource management have significant positive impact on the pro-environmental behavior of the employees. Also, coworker's pro environmental advocacy significantly positively mediates the relationship between GHRM and pro-environmental behavior of the employees; perceived corporate social responsibility and employees pro environmental behavior. The results of the study have managerial implication in the workplace of organization. The study recommends that organization should implement effective corporate social responsibility and GHRM policies in order to encourage ecofriendly behavior of the employees.

Keywords: Green Human Resource Management, Perceived Corporate social responsibility, Pro-environmental behavior, Higher education sector

Chapter I

INTRODUCTION

1.1 Background

Recently, stakeholders are paying more attention towards environmental sustainability. Due to which organizations are using variety of strategies in order to fulfil their corporate social responsibility obligations (Kim, Kim, & Han, 2014). The development world is concerned about the environment in which businesses are operating and is emphasizing to shift to more sustainable activities and apply greener techniques. Organizations are designing conditional system in order to meet the global benchmarks for protection and conservation of environment. Sustainability is regarded as the long-term competitive advantage in today's corporate world. Green HRM is becoming a vast area of management for everyone (Mehta & Chugan, 2015). Combining natural procedures and destinations into goal advancement of organization assists in reaching an effective environmental management framework (Iftikhar, Zaman, Rehmani, Ghias, & Islam, 2021).

Due to the rising concern about natural resources and enhancement of global natural models, organizations should consider formal ecological procedures. Writings on different concepts such as green retailing, green management, Green Bookkeeping and green marketing, focused on green HRM concept (Peattie & Ratnayaka, 1992). According to the analysts, following green HRM practices is a key behind the success of organization because they help organizations in gaining competitive advantage (Ali, Islam, & Chung, 2020).

The involvement and interest of employees and their association are essential for green human resource management. There is a need to execute such practices in everyday lives. Researches revealed that natural management framework has a positive effect on the ecological beliefs and behavior of employee's private lives (Renwick & Maguire, 2008).

The present study will follow holistic approach to find the impact of GHRM on pro-environmental behavior. The HRM practices enhance the performance of employees. Several research studies reveal that green HRM practices positively impact the involvement of employees towards service recovery performance (Babakus et al. 2003). Extending the research of (Shah, Cheema, Al-Ghazal, Ali, & Rafiq, 2020), this study aims to examine pro-environmental behavior

as an outcome from green HRM and perceived CSR with the mediating role of employees' advocacy in the higher education sector.

1.2 Contextual Analysis

One of the major factors that contributes in changing the state of any nation into a unique position is the education. Education plays a significant role in promoting standards of living and to reduce inequality. It also has a significant role in building capabilities of human through skills, knowledge and creative strength of a society. Advantages of education are not just limited to the national economy but individual can also get many benefits from it. Due to which, higher education institutions and its related institution have been the main focus of government in many countries (Waring, 2013).

According to the Economic survey of Pakistan (2021-2022), there are around 218 universities in Pakistan and fifty-eight thousand teachers are working in these universities including both public and private sector universities. The increase in the enrollment of students in universities is observed form 1.86 million in year 2018-2019 to 1.91 million in year 2019-2020. It is expected that enrollment will increase from 1.91 million in 2019-2020 to 1.96 million in a year 2020-2021 (that is 2.8%).

The developments in education that have occurred till now and the skills that have been achieved during this time is not beneficial just for Pakistan but also the nearby region. It is very essential for a nation like Pakistan for its socio-economic development to transform large part of its population, that is, youth into a real wealth. This transformation can be done by formulating a high quality and modern higher education sector.

The challenges and demands of higher education have been increased in recent times. (Bargh et al., 1996; Saiti et al., 2018). Developed countries are exerting specialized and concerted efforts in order to overcome these challenges (Trakman, 2008). However, developing countries are facing more difficulties while managing challenges of higher education due to limited resources and their inefficient use (Naviwala, 2016). Regulatory bodies and independently governed organizations are being formulated in order to improve higher education sector by effectively using resources and improved consultancy process with stakeholders (Ali & Kassim-Lakha, 2002). It is noticed that countries having centralized, complex and multi-level governance structures are

facing more troubles in managing their higher education sector (Ivancheva & Syndicus, 2019). Centralized governance is one of the major reasons of management issues in higher education in countries like Pakistan (Trakman, 2008). the management and governance issues of higher education sector are accompanied by variation in policies of different governments, fragile democracy and ad-hoc formulation and implementation of policies (Gilani, 2015). The political instability faced by Pakistan since its independence and lack of long-term policy has severely impacted the governance and management in different sectors (Hoodbhoy, 1998). It has also limited the effective formulation and implementation of policies in the higher education sector of Pakistan (Harvey, 2004).

Moreover, the policies formulated by government are not effective enough to meet the standards of global education sector. The common issues faced by Pakistan are lack of teachers and academic space. Weaken research standards, poor infrastructure, inadequate facilities, low rate of students enrolled in universities, out dated and ineffective teaching methods based on memorizing notes, lack of enthusiasm by teachers and students, gender discrimination and poverty (Salik & Zhiyong, 2014). These challenges can be overcome depending on various factors like appropriate leaning environment and education, teachers, infrastructure, courses, research skills, information feedback and observation system (Ahsan Nasir, 2019).

There are other challenges that are faced by these institutions such as advance technology, diversity, high quality service, and globalization (De Waal and Kerlaan, 2015). In addition to that, due to increasing accountability by students and higher level of management control, these organizations must be more competitive, agile and business like (Cook and Daunton 2014; Cook et al. 2009). So, it is necessary for these organization to operate in different and unique ways in order to compete with increasing number of education institutions and more competition and choices for students (Mahd 2010; Vossensteyn 2004). Management of higher education institution is looking for new ways to enhance the performance. They can incorporate sustainability in their policies. Researched revealed that academic institution that are indulged in sustainable practices would assists students to understands the root causes of climate change and environmental degradation and encourage them to follow the environmentally sustainable practices (Clugston & Calder, 1999).

Researches of HRM within the higher education sector context are underdeveloped in south Asia especially in Pakistan. The purpose of this study is to examine the role of GHRM in the context of Pakistan HEC by assessing its role in pro environmental behavior concerning the execution of policies, processes and general management.

1.3 Problem Statement

Since the last two decades, there is an undisputed agreement for the need of a practical environmental management drive around the globe. It happens because of the devasting impacts of pollution that have been deteriorating natural resources very quickly (Ahmed & Nisar, 2015)

Pollution is a serious threat to the environmental sustainability and it has devasting impacts. Many activities of human results in pollution, threatening lives of billions of people. if people indulge in pro-environmental behavior, we can deal with these threats. Pro environmental behavior includes all types of behavior that save energy and material and leads to environmental sustainability. It incorporates but not restricted to the buying of personal goods and services (energy for the travel, home), utilization of good related to environment (like cooling and heating at home) disposal of household waste and purchasing organic food and recycled products (Stern 1997). Even though people understand the significance of pro environmental behavior but their interest and concern do not necessary translate into consequent action. Researches revealed that around 53% of people in USA, Canada, Germany, India, China, Brazil and France are concerned about the sustainability of environment but they are willing to indulge in practices that can save environment (Bonini et al., 2008). The question arises due to this discrepancy that what is important to in order to indulge them in pro environmental behavior.

Prior researches revealed that CSR policies of an organization plays an important role in shaping the ecofriendly behavior of employees (Jilani, Yang, & Siddique, 2021. Different researches find the association between perceived CSR and pro social behavior (Jung, Park, & Junyong, 2019).. Social norms are playing a vital role in influencing employees pro environmental behavior (Gholamrezai, Aliabadi, & Ataei, 2021.

Along with corporate social responsibility, green human resource management also influence pro environmental behavior. Researchers revealed that green human resource management support environmental awareness of employees and shape their behavior to establish

ecofriendly attitudes in their professional and private lives. In other words, green human resource management promote ecofriendly behavior of employees by indulging them in greener practices (Cincera & Krajhanzl, 2013)

Considering this problem, the present study aims to address the issue of GHRM, Perceived CSR activities and pro environmental behavior with the mediating role of environmental advocacy of coworkers.

1.4 Research Gap

In recent times, a lot of researches were conducted on green human resource management and related areas. A study was conducted to investigate the effect of GHRM and green team innovation on green product innovation in manufacturing organizations of Malaysia by using cross sectional survey design. The study used a team level analysis (Ogbeibu, Emelifeonwu, Senadjki, Gaskin, & Kaivo-oja, 2020). Another research study was conducted to investigate the effect of perceived CSR on pro-environmental behaviors of employees through the mediating role of organizational identification and coworkers' pro-environmental advocacy in hotel industry of Malaysia (Shah, Cheema, Al-Ghazal, Ali, & Rafiq, 2020).

These researches recommend that apart from tourism and manufacturing industries, theses variables should be investigated in other industries by using other variables as well. Very few are researches conducted to examine the direct relationship between green human resource management and pro environmental advocacy of coworkers, perceived CSR and coworker's pro-environmental advocacy The present study intends to fill this research gap and aims to analyze these variables in higher education sector of Pakistan as different higher education institutes are contributing in the sustainability of environment through their HR Practices.

1.5 Research Questions

Based on the research gap, following research questions are addressed in the study:

- What is the impact of green human resource management on pro environmental behavior?
- What is the effect of perceived corporate social responsibility on pro environmental behavior?
- Does coworkers' advocacy play a mediating role between GHRM and pro environmental behavior.

- Does coworkers' advocacy play a mediating role between CSR and pro environmental behavior.

1.6 Research Objectives

Based on the research questions, following research objectives can be achieved in the study:

- To examine the impact of green human resource management on pro environmental behavior
- To investigate the effect of perceived CSR on pro environmental behavior.
- To examine the mediating role of coworkers' advocacy between GHRM and pro environmental behavior.
- To investigate the mediating role of coworker's advocacy between CSR and pro environmental behavior.

1.7 Significance of Study

HR is a catalyst of change within the organization towards environmentalism by connecting its policies with the environmental dimension with the purpose of sustainability (Jyoti, 2019). GHRM is regarded as an essential representation of such connection. Some essential practices and policies are found under green HRM such as online employee training, energy efficient office spaces, virtual interviews, recycling, teleconferencing and telecommuting (Hussain, 2018).

The present study attempts to find the impact of GHRM and CSR activities on pro environmental behavior in higher education sector of Pakistan. It will help the universities to identify how these factors are playing role in shaping environment that is suitable for the survival of all the individuals and also enable them to become proactive. There are many advantages of following GHRM policies.

Because of the execution of green human resource practices, some aspects of organization, such as corporate image can be enhanced. (Shen, Dumot, & Deng, 2018). It also helps in accomplishing greener organization. Along with that, pro-environmental behavior of employees, both voluntary and obliged is impacted by green human resource practices. (Saifulina, Carballo-Penel, & Ruzo-Sanmartín, 2020). It incorporates other benefits for organization such as creating

environmentally friendly culture of organization, enhancing efficiency of different resources and decreasing waste of money.

The execution of green human resource practices within the organization is also beneficial for employees at individual level. For instance, the benefits are reflected in green work outcomes including. green competencies, green behavior, pro-environmental commitment and, increasing green individual values; and non-green work outcomes like sense of ownership, enhanced wellbeing of employees, job productivity, job satisfaction and employee loyalty (Shurati & Sugiarto, 2020)

1.8 Scope of the Study

The scope of the study is limited to collecting data from the employees of higher education sector including public and private sector universities of Rawalpindi and Islamabad. The unit of analysis are the PhD faculty members who are working in these universities.

Chapter II

LITERATURE REVIEW

2.1 Pro Environmental Behavior

It is defined as the behavior that is undertaken by a person in order to diminish the negative effect on environment with the aim to change the behavior (Stern, 2000). There are number of factors that can determine pro environmental behavior of an employee including socio-demographic factors, education, age, habits, gender, income, household structure, beliefs, attitudes, awareness, norms, values, identity, social factors, individual factors and institutional factors (Blankenberg & Alhusen, 2019).

Previous literature tried to measure PEB in workplace but still there is contradiction in its definition. One of the vital variations between PEB in organizational context and PEB in general, is its potential effect on the choices of an organization and its execution of green practices. Unlike, in general PEB researches, prior literature on workplace PEB split it into two main branches. In the first branch, there is an emphasis on direct PEB including recycling and energy related behaviors, whereas in the second branch, the emphasis of researchers is on indirect PEB like eco helping and eco civic engagement behavior. (Pandur & Albulescu, 2016).

Previous researches revealed that essential antecedents of PEB are some individual level factors including motivation, self-efficacy, habits, awareness about nature, personal traits, environmental values, environment knowledge (Sarkar, 2008) and some organizational factors such as Green Human Resource Management practices, culture of an organization and support from top executives (Boiral & Paille, 2012)

The conceptual framework of PEB was developed by McDonald (2014) after reviewing frameworks from general PEB and workplace PEB researches. The prior literature on general PEB revealed the influence of self-efficacy, emotion, habits, stress, personal norms, environmental awareness, environmental concern, social structure, social identity and social norms (McDonald, 2014). In general, PEB, recycling intentions and energy conservation had a significant association with personal norms (Scherbaum, Popovich, & Finlinson, 2008)

Researches also revealed that financial incentives, management support, performance feedback, environmental awareness and training strongly predict PEB (Young, 2015). Pro environmental behavior of employee leads to the decreasing footprint of an organization (Boiral,

2009), reducing environmental degradation in future and climate change (SoonHo, Minseong, HyeSook, & Holland, 2016). This kind of behavior enhance consistency within the socially and environmentally responsible goals of an organization which in turn leads to the sustainable development and success of an organization (Tian & Robertson, 2019).

2.1.1 Dimensions of Pro environmental Behavior

Numerous researches revealed that pro environmental behavior of workers results in the sustainability of an organization and enhance its competitiveness (Chang & Kuo, 2008). Its direct results are reduction in the usage of energy and raw material, reduction in waste and pollution, whereas it indirectly impacts the detection of faults in equipment's and plants which threatens the environment and change destructive practices of an organization (Lülfs & Hahn, 2013).

There are three dimensions of pro-environmental behavior (Ramus & Killmer, 2007). The first one is the prosocial nature of pro-environmental behavior that supports welfare of both individuals and organization spontaneously. The second one is the discretionary nature in which workers are involved in PEB that is not mandatory like using stairs instead of elevator and turning of lights. The third dimension of pro-environmental behavior is its extra role nature which enables employees to engage in actions that are not mentioned in their job descriptions but employees perform them for the green image of an organization such as protection of environment, improving environmental performance of an organization.

2.2 Perceived CSR

The term CSR means voluntary activities in which an organization is involved with the intention of playing its role in the sustainability of the environment and society (EuropeanCommission, 2001) The theoretical explanation for CSR lies in intellectualizing it as an unwritten agreement between organizations and society in which they are expected to indulge in some socially responsible activities. (Woodward-Clyde, 1999).

There are three types of CSR. Strategic CSR centers on responding to social services with some profit orientation for the organization (Porter & Kramer, 2006). Ethical CSR emphasizes on fairness and justice in practices that are based on moral values (Carroll, 1991). Philanthropic CSR emphasizes on paying back to the community without expecting any reward in return (Carroll, 1991).

2.2.1 Dimensions of CSR

There are three major dimensions of CSR, that are, economic responsibility (profit), environmental responsibility (planet), and social responsibility (people). Organizations consider the basis of CSR like concepts of profit, people, and planet are also the basis of business (Picón, Castro, & Roldán, 2014).

Social dimension

Recently, the perception towards organizations is that they are considered as citizens, an important part of bigger community, so that they just not emphasize on their business but also on CSR, for instance, shows concern towards environmental sustainability (Leão-Aguiar, Ferreira, & Marinho, 2005). Social dimensions of Corporate Socially Responsible are basically responsible for community, customers and employees and it is the obligation for an organization to contribute to the society and there must be an alignment between the interest of society and corporates (Uddin, Bela, Hassan, & Tarique, 2008) . Social dimension incorporates practices such as addressing health problems, equal job opportunities, workplace condition, community issues and workplace safety (Jamali, Mezher, & Bitar, 2006).

Environmental dimension

It has been a vital issue among three dimensions of CSR, it was recognized as one of the most significant issues that organizations have to deal with as a CSR since 1970's. (Stojanović, Mihajlović & Schulte, 2016). As many industrial activities results in scarcity of natural resources and environmental damage, there has been increasing pressure on the organizations to deal with the environmental issue (Azzone, Bianchi, & Noci, 1997).

Due to limited resources and capacity of biological systems, activities of corporate should function at a level that that does not damage the health of environment (Matten, 2006). In order to have positive image of an organization and to get support from society, organizations should indulge in environment protection activities (Arsić, Stojanović, and Mihajlović 2017).

There are many negative impacts of business operations such as overuse off natural resources, pollution that is threatening to the sustainability of the environment. According to the principle of sustainability, environmental dimension is linked to the adequate use of available resources and conserved them for the use in future (Matten, 2006). Many researchers argue that

environmental report of corporate can help in improving and managing corporate activities and to share them with the stakeholders especially those who are concerned about environmental sustainability (Azzone, Bianchi, & Noci, 1997).

Economical dimension

Economic dimension refers to the social responsibility that focuses on the financial and economic development, for instance, preserving corporate profits, contributing to business management and economic development (Kim, 2015). CSR is the most significant social responsibility of organizations because society expects that organizations made profit after selling their products and services (Carroll 1979). Economic dimension should be carried out in order to maximize profitability, earnings per share and maintain high operational efficiency and competitive advantage (Carroll, 1991)..

There are two kinds of economic dimension, narrow and broad notion. Narrow notion emphasizes on the economic consequence of the business, it is the responsibility of management is to produce, develop and sell products that ensure long term financial outcomes of corporate. Whereas broad concept of economic dimension includes attitudes of corporates towards the running of business and its effect on the economic system (Matten, 2006)..

Economic performance of corporates impacts all the stakeholders (Uddin, Bela, Hassan, & Tarique, 2008) For example, if corporates get high financial outcomes, then there will be an increase in the salaries of employees and they will be able to buy products and services with taxes which in turn benefits the government and local industry (Uddin, Bela, Hassan, & Tarique, 2008) It is one of the most essential purpose of the organizations existence and it is their first obligation to enhance the economic functions (Matten, 2006).

2.3 Green Human Resource Management

It is defined as HR practices that are environment friendly and subscribes to the sustainable usage of resources in the industrial sector around the globe. It was initially regarded as the HRM facet of environmental management (Budhwar & RSparrow, 2002). Because of this reason, initially, it was merely observed with respect to the strategic options and practices of HR department.

GHRM depends on multidisciplinary approach that incorporates methods from different areas of psychology, management, economics, and sociology and because of this wide array of related questions and issues arises (Ren, Tang, & Jackson, 2018).

Under the umbrella of researches on green HRM, there is everything that links to the adoption, awareness and execution of human resource practices, which are affecting the sustainability. In short, GHRM incorporates all the practices that leads to the economic, social (employee health, safety, wellness) and environmental sustainability dimensions from the viewpoint of personnel and fulfilling all the sustainability requirements of organization (Marrewijk & Hardjono, 2003).

There are numerous reasons for considering green human resource management as a vital challenge for the execution of an efficient sustainability approach for a company. Firstly, HRM has a vital part in greener practices of organization through selection, recruitment, training, development, compensation management, rewards, exit policies and performance appraisal along with communicating values and culture of an organization (Renwick, Redman, & Maguire, 2013). Secondly, changes that an organization needs help to move towards sustainability approach and there must be a direct involvement of management as well as all the workers, not by only those who are directly impacted by GHRM practices, as these practices can encourage and maintain green behaviors among all the employees of an organization (DUBOIS & DUBOIS, 2012) .

Besides, an effective approach to sustainability, it just not only requires obedience with formal rules and policies but also personnel's acceptability and involvement with voluntarily green initiatives in the organization like decreasing paper consumption and electricity, and using stairs instead of elevators.

Environmental issues impact private lives of employees in variety of ways. It is not just because of the fact that quality of environment has an impact on the quality of lives of people but also environmental sustainability is linked with the choices, values and behavior of employees (Taylor, 2012) For example, various researches revealed that while recruiting new workers, firms come across a large number of candidates who want to join greener organizations (Brekke & Nyborg, 2008)

Current literature of GHM has main emphasis on perspective and theoretical papers, tacking theoretical framework or explaining possible effect of executing GHRM in organizations. Till now less emphasis has been given to the real outcomes of activities and actions that are used in establishing green organizational approach through green human resource management.

2.4 Coworkers Advocacy

Coworkers' advocacy is defined as the phenomenon in which colleagues converse about ecological issues, knowledge about environment and potential solution to enhance responsible attitude towards the sustainability of environment. Despite motivational activities, coworkers and social context role is very important in encouraging employee's pro environmental behavior (Barrick, Mount, & Li, 2013).

Coworkers often give hints through their behavior and statements that can assist other to collect and proceed information in order to control their behaviors and have deeper understanding about the reality. People usually depends on these cues and connect their behaviors and activities according to the advocacies (Brass & Burkhardt, 1993). Therefore, their ethics, behaviors and beliefs will show a zone of plasticity which is linked by setting specific signals known as coworker advocacy. When employees observe others are engaging in specific behavior, they may indulge in a similar behavior with the wish to fit in, develop or strengthen their social relationship with others. For instance, if a person notices that his coworker switches off the light while leaving the office, use both side of page for prints, use their own cups instead of disposable ones, there are chances that they might copy the behavior. When PEB is required and is appreciated by the others, an individual desire to give reaction to the social cues from the colleague and it may encourage him/her to indulge in PEB (Kim, Kim, & Han, 2017)

According to social cognitive and social information processing perspectives, individuals are adaptive organisms so they tend to adapt belief, attitudes and behavior to their social context (Salancik & Pfeff, 1978). Informal values and norms that can control behaviors of group members are established through frequent communication about environment problems and sharing unique and innovative ideas to defend nature and improve organization's environmental performance. The more salient and vigorous pro environmental advocacy becomes, there are more chances that coworkers will perceive PEB as morally acceptable conduct (Cialdini, Reno, & Kallgren, 1990) . In addition to that, social cues that are linked with the pro-environmental advocacy can activate

personal goals of an individual for PEB which in turn further encourage such behavior (Unworth, Dmitrieva, & Adriasola, 2013)

2.5 Perceived CSR and Pro environmental Behavior

Various researches are conducted to find the connection between pro-environmental behavior of employees and perceived CSR. A research study was conducted to find the impact of CSR on employees' pro environmental behavior. Data was gathered from 298 employees of different industry sector by using survey method. Results showed that perceived CSR has both positive and negative effect on pro-environmental behavior of employees (Afsar, Cheema, & Javed, 2018).

Another research study was conducted to investigate the effect of perceived CSR on voluntary PEB of employees and mechanism that relates CSR perceptions to these behaviors. Data was collected from 183 supervisor subordinates' dyads that were working in small and medium sized hotels of China. Findings revealed that perceived CSR indirectly impact voluntarily presentimental behavior of employees through organization identification and these impacts are stronger for employees who are more empathetic (Tian & Robertson, 2019).

Research was conducted to analyze the impact of perceived CSR on PEB of employees. Data was collected from 191 private employees. Results of the study revealed thar perceived CSR has direct as well as indirect impact on employee's PEB (Gkorezis & Petridou, 2019).

Another research study was conducted to find the association between Corporate Social Responsibility and pro environmental behavior in the banking sector of Pakistan. The data was collected from 459 employees by using self-administered questionnaire and was analyzed in AMOS. Findings of the study revealed that there is a direct association between CSR and pro environmental behavior (Wu, et al., 2021).

A research study was conducted to investigate the association between Corporate social responsibility and PEB of students in higher education sector of Pakistan. Data was collected from 656 students that were enrolled in different universities of Pakistan and was analyzed through the technique of structural equation modeling. Findings revealed that there is a direct association between perceived CSR and pro-environmental behavior of employees (Jilani, Yang, & Siddique, 2021)

A research study was conducted to investigate the impact of perceived corporate CSR of employees on their pro environmental behavior. The data was collected from 235 employees of manufacturing industry by using survey method. Results of the study revealed that perceived corporate social responsibility positively impact the pro environmental behavior of employees. Organization should share the knowledge of their authentic, credible and genuine CSR to their employees in order to promote pro-environmental behavior in them (Latif, Ong, Meero, Rahman, & Ali, 2022).

Murtaza, et al (2021) Conducted a research with them aim to find the association between pro-environmental behavior of employees and perceived corporate social responsibility. The data was collected from the 392 employees of banking industry through a survey method and it was analyzed by using structural equation modeling. The results of the study showed that perceived corporate social responsibility positively predict environmentally friendly behavior of employees (Murtaza, et al., 2021).

H1: Perceived CSR positively affect pro environmental behavior.

2.6 Green HRM and Pro environmental Behavior

A study was conducted to analyze the influence of green HRM practices on pro-environmental behavior of employees. Data was collected from 374 employees who were employed in pharmaceutical, chemical, food and power and coal industry. Results showed that Green Human Resource Management practices have positive effect on pro-environmental behavior of employees (Dakhan a. A., et al., 2021).

Another research study was conducted to investigate the impact of GHRM on pro-environmental behaviors. Data was collected from 342 employees and was analyzed by using smart PLS. Findings of the study showed that green HRM impact green commitments and pro-environmental behavior of employees (Ansari, Farrukh, & Raza, 2020)

Research study was conducted to investigate the key factors of GHRM practices in Malaysia. The study took place in two phases. In the initial phase, archival research method was used. Whereas in the second phase, interview method was used. Findings of the study showed that green HRM practices can be used to harness its full potential is motivating employee's pro environmental behavior in the organization. Findings also showed that implementation of green

HRM practices will encourage PEB of employees and thus reduce increased risk of climate change (Mishra, 2017).

Another research study was conducted to access the influence of green human resource management practices on pro-environmental behavior of employees in higher education sector. Data was collected from 240 female faculty and other staff members of the universities by using questionnaire method and was analyzed through confirmatory factor analysis, structural equation modeling and SEM-PLS by using PLX software. Results showed that green human resource management practices positively impact PEB of employees (Dakhan, et al., 2020)

The research study was conducted to address the effect of green human resource management on making employees more environmentally concerned. The secondary data was collected by establishing thematic table, coding, axial and quality review tables. The results of the study revealed that constant GHRM practices establish pro environmental behavior. Green human resource management practices motivate employees to reduce waste, take care of natural resources and avoid those practices that can be threat the sustainability of environment (Shreevamshi, Kulkarni, Jadhavar, Vemuri, & Kumar, 2022)

A research study was conducted with the aim to find the effect of green human resource management practices (green empowerment, green recruitment and selection, green performance management, green training and development) on pro environmental behavior of employees. Data was collected from 347 employees who were working in different industries like pharmaceutical, power industry, coal generating, chemical and food. Results of the study revealed that green human resource management practices positively impact the pro environmental behavior of employees (Saeed, et al., 2019).

H2: GHRM positively affect pro environmental behavior.

2.7 PCSR and Coworkers Pro-environmental Advocacy

A research study was conducted to examine the relationship between perceived corporate social responsibility of employees and coworker's pro-environmental advocacy. The data was collected from 265 employees and it was analyzed by using hierarchical regression analysis and bootstrap approach. The results of the study revealed that perceived corporate social responsibility

is positively related to coworker's pro-environmental advocacy (Liu, Guo, Liao, Li, & Wang, 2022). Therefore, it is hypothesized:

H3: Perceived corporate social responsibility positively influences coworker's pro-environmental advocacy.

2.8 GHRM and Coworkers Pro environmental Advocacy

A research study was conducted to access what factors shape green advocacy of employees and its psychological mechanism. The hypothesis was formulated on the basis of cognitive consistency theory which states that green human resource management can impact the organization-based self-esteem of employees which in turn motivate them to indulge in green advocacy in order to develop their positive image. The data was collected from 135 employees and their chief HR officers. The results of the study revealed that green human resource management positively impact the coworker's pro environmental advocacy (Cheng, Liu, Yuan, Zhang, & 4, 2022). Based on this research, it can be hypothesized:

H4: Green human resource management has positive impact on Coworkers Pro-environmental advocacy.

2.9 Coworkers Advocacy, Perceived CSR and pro-environmental behavior

A research study was conducted in order to investigative the impact of Perceived CSR on pro-environment behavior of employees through pro environmental advocacy and organizational identification. The data was collected from 331 employees of 32 hotels of Malaysia by using self-administered questionnaire method. The results revealed that perceived CSR cause pro-environment advocacy which in turn leads to pro-environment behavior.

Another research study was conducted to access the impact of perceived CSR on pro environmental behavior of employees with the mediating role of coworker's advocacy, moral reflectiveness and environmental commitment. The data was collected from 560 employees and was analyzed by using structural equation modeling. The results of the study revealed that coworker's pro environmental advocacy, reflectiveness and environmental commitment mediates the association between pro-environmental behavior of employees and perceived corporate social responsibility (Afsar & Umrani, 2019).

H5: Coworkers Advocacy mediates the relationship between pro-environmental behavior and Perceived CSR.

2.10 Coworkers Advocacy GHRM and pro-environmental behavior

A research study was conducted to explore why employees voluntarily indulge in green behavior. Data was collected from 325 employees that were categorized into 80 work groups in three organizations, it was found that moral reflectiveness and conscitiniousness are linked with the voluntary workplace green behavior of leaders as well as their group members. Results also revealed that there is a positive association between green behavior of leaders and subordinates and there is also a negative relationship that is mediated by the green advocacy within the group (Kim, Kim, & Han, 2014). So, we can say that green practices in workplace leads to employee's advocacy which results in green employees' behavior.

H6: Coworkers Advocacy mediates the relationship between green HRM and pro environmental behavior.

2.11 Theory

Social exchange theory states that people interaction with each other is based on self-assessments of cost and benefit analysis (M, 1964). People wants to minimize their costs and maximize the benefits while interacting with each other (Jahan & Kim, 2021). This theory predicts that the relationship between pro-environmental behavior and perceived CSR is mediated by pro-environmental advocacy (Homans, 1958). When personnel feel that their company is indulge in socially responsible activities, they will respond to the society with positive behaviors and attitudes (Asfar & Umrani, 2020)

Coworker pro environmental advocacy involves discussion with colleagues regarding environmental issues, potential solutions, sharing related knowledge in order to enhance the sustainability of surrounding environment. Researchers believed that perceived CSR affects pro environmental advocacy of employees (Asfar & Umrani, 2020), which in turn positively impact pro environmental behavior (Norton, Parker, & Zacher, 2015). Employee's interaction can also shape pro environmental behavior (Frese & Fay, 2001).

Coworkers gives hints through their statements, behaviors and gestures in order to assist in regulating their behaviors (Groth, Goldman, Gilliland, & Bies, 2002). Researchers revealed that people usually show their behaviors according to the advocacy that is given to them, and mostly, they depend on it (Brass & Burkhardt, 1993). When employees observes that organization is indulge in pro environmental behavior, they will also display similar kind of behavior. It shows that perceived CSR leads to the PEB through the mediating role of pro-environmental advocacy of coworkers. Prior literature also supports the mediating role of coworkers' advocacy. They revealed that perceived Corporate Social Responsibility impacts pro environmental behavior of employees, and coworker's advocacy mediates the relationship between PEB and Perceived CSR (Asfar & Umrani, 2020)

2.12 Theoretical Framework
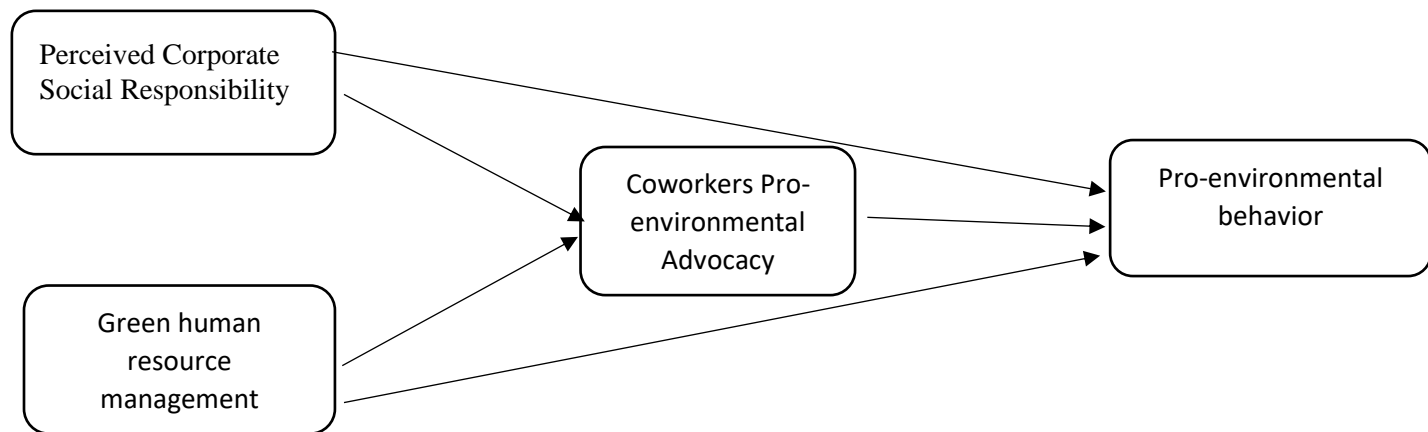
Figure 2.1: Conceptual Framework of the Study

Chapter III

METHODOLOGY

3.1 Research Design

3.1.1 Type of Study

The present study is a quantitative study that uses self-administered questionnaire to collect data.

3.1.2 Research strategy

The present study is a cross sectional study because it collects data at one point in a given time. The nature of the study is cause and effect as its main aim is to find the impact of independent variables (green human resource management and perceived corporate social responsibility) on dependent variable (employee pro environmental behavior).

3.1.3 Research approach

Deductive approach is employed by the present study. It formulates several hypotheses based on a theory already in existence, then coming up with a research plan to test the hypothesis. It moves from the specific to the universal.

3.1.4 Research Philosophy

The present research study follows positivism research philosophy. The role of the researcher in this study is restricted to gathering data and giving it an objective interpretation. In other words, the researcher approaches the study as an impartial analyst who keeps her personal beliefs at arm's length. Findings of the study are quantitative and observable.

3.2 Population

The population of the study consists of PhD faculty members working in the top four universities (in terms of size) of Rawalpindi Islamabad Pakistan. These universities are International Islamic University, Islamabad, Federal Urdu university of science & technology, Islamabad. Bahria University, Islamabad Campus and National University of Modern Languages, Islamabad. There are 225 PhD faculty members in International Islamic University, Islamabad, 227 in Federal Urdu university of science & technology, Islamabad, 134 in Bahria University, Islamabad Campus and

132 in National University of Modern Languages, Islamabad. The total PhD faculty members in these universities are 718.

3.3 Sample

3.3.1 Sampling technique

The current study uses the technique of stratified random sampling in order to collect data. Stratified random sampling is a technique that divides the population into subgroups called strata. Participants are randomly selected from each stratum. The population of the current study is PhD faculty members who are working in the higher education sector of Rawalpindi and Islamabad. The PhD faculty members working in the top four universities (strata) of Rawalpindi and Islamabad based on the number of enrollment of students (as per HEC ranking, Annexure A) are selected. Data is randomly collected from each university (stratum) by using the following sample frame.

3.3.2 Sample frame

A sample size of 248 is estimated by using Morgan table. Sample is selected based on the proportion of PhD faculty members in each university. 31% (77) teachers from International Islamic University Islamabad, 32% (80) from Federal Urdu university of science & technology, Islamabad 19% (47) from Bahria University, Islamabad and 18% (44) from National University of Modern Languages, Islamabad are selected. The criteria are kept open for all the departments, socio economic backgrounds, gender and ages.

3.4 Instruments

Five-point Likert scale from Turke (2009) is used to measure perceived CSR. It consists of 18 items and five responses ranging from strongly agree to strongly disagree.

To measure GHRM, scale is divided into three subscales, that are, green recruitment and selection (GRS), Green performance and compensation (GPS) and green training, innovation and development. The questionnaire consists of 7-point Likert scales, that ranges from strongly agree to strongly disagree. Four items are adapted from Nejatia, Rabieib, José, & Jabbourc (2017) in order to measure Green Recruitment and Selection. In order to measure green performance and compensation, five items are adapted from Zaida, .Jaaronb, & Bonc (2018)) and one from Nejatia, Rabieib, José, & Jabbourc (2017). To measure green training, innovation and development, four

items are adapted from Zaida, .Jaaronb, & Bonc (2018) and one more item from (Nejatia, Rabieib, José, & Jabbourc, 2017).

For measuring pro-environmental behaviors, a questionnaire developed by Robertson & Barling, (2013) is used. It consists of seven items by using a five-point Likert scale having responses ranging from strongly agree to strongly disagree.

In order to measure coworker's pro-environmental advocacy, a scale developed by kim et al (2017) is used. It consists of three items with the five response rates ranging from strongly agree to strongly disagree.

3.5 Ethical Consideration

The present study kept in mind all the ethical consideration as per the APA standards. The purpose of study, questionnaires being used and procedure being employed are all approved by the faculty of Bahria Business school, Bahria University Islamabad.

During data collection, participants are informed about the nature of study and their consents is also taken in order to ensure their willingness to participate in research study. The queries and issues of participants are also addressed. Confidentiality of research participants is ensured.

3.6 Procedure

After getting permission from the authorities, different universities of Rawalpindi and Islamabad are approached. APA ethical code of conduct is followed during data collection. Sets of forms are given to the participants of the study including consent form, demographic sheets and five scales being used. Participants are instructed regarding how to fill the form and their queries are addressed.

After collection of data, forms are double checked and they are put into software for data analysis i.e., Smart PLS and SPSS. The analysis used for this study are descriptive statistics, outer loading and weightage of items, multicollinearity analysis, reliability analysis, discriminant validity, regression analysis, path coefficient and mediation analysis. SPSS is used to conduct descriptive analysis whereas Smart PLS is used for other analyses.

Chapter IV

RESULTS

4.1 Descriptive Analysis

Table 1

Socio-Demographic Characteristics of Sample (n=248)

	N	%
Gender		
Male	144	41.9
Female	104	58.1
Marital Status		
single	93	37.5
Married	155	62.5
Age		
20-30	76	30.6
31-40	117	47.18
41-50	30	12.09
51-60	18	7.3
61 and above	7	2.8
Total Experience		
less than 5 years	84	33.87
5-10 years	79	31.9
11-15 years	50	20.2
16-20 years	12	4.8
21 years and above	23	9.3

Table 1 shows the demographic characteristics of study. The sample of the study consists of the 58.1% female and 41.9% male. 37.5% are single and 62.5% are married. 30.6 % have the age group of 20-30 years, 47.18% belong from the age group of 31-40 years. 7.3 % from 51-60% and only 2.8% have the age group of 61 and above. 33.7% of the participants have work experience of less than five years. 31.9% have the experience of 5-10 years, 20.2% have the work experience of 11-15 years, 4.8% have experience of 16-20 years and 9.3% have the work experience of 9.3%

Table 2

Descriptive characteristics of sample (n=248)

Scale	M	SD	Range	Skewness	Kurtosis
PCSR	3.68	.64	1.33-5	-.86	1.23
GHRM	3.25	.77	1.53-5	-.20	-.93
ADV	3.72	.81	1.00-5	-.84	.71
PEB	3.84	.61	1.67-5	-.67	1.30

Table 2 shows the descriptive characteristics of study variables. It revealed that the mean of all the scales being used in the study is around 3-4. Standard deviation is also shown in the above-mentioned table. It helps in determining the spread out of the data. its higher values indicate the more spread out whereas lower value indicates that there is less spread out of the data. This table reveals that all the scales have value less than 1 for the standard deviation. So, the data is not much deviated from the mean.

The range is calculated to find the dispersion in the data. A large value of the range shows that there is more dispersion in data whereas small value shows that there is less dispersion in data. The above revealed that the difference between maximum and minimum value for all the study variables is around 3-4.

4.2 Structural Equation Modeling

Structural equation modeling also known as SEM is a powerful and multivariate tool that is used frequently in scientific analysis in order to test and analyze multivariate cause and effect

association. It is different from other approaches as it is used to test direct and indirect impact of already assumed cause and effect relationship (Fan, et al., 2016).

The current study used the technique of structural equal modeling to access the effect of perceived CSR and GHRM on pro environmental behavior with the mediating role of coworker's employee advocacy. for this purpose, smart pls is used to analyze data by using the partial least square method.

Table 3

Resilience Model accessing weights and loadings (n=248)

WEIGHT

Items	W	T Values	P Values	L	T Values	P Values
Coworkers Advocacy 1 <- Coworkers Advocacy	0.28	13.552	0.000	0.800	20.008	0.000
Coworkers Advocacy 2 <- Coworkers Advocacy	0.38	22.497	0.000	0.902	53.001	0.000
Coworkers Advocacy 3 <- Coworkers Advocacy	0.47	15.479	0.000	0.900	67.853	0.000
GHRM 10 <- GHRM	0.13	12.476	0.000	0.861	53.007	0.000
GHRM 11 <- GHRM	0.08	7.999	0.000	0.774	24.687	0.000
GHRM 12 <- GHRM	0.08	8.351	0.000	0.784	26.145	0.000
GHRM 13 <- GHRM	0.08	7.262	0.000	0.772	18.992	0.000
GHRM 14 <- GHRM	0.09	8.225	0.000	0.775	18.920	0.000
GHRM 15 <- GHRM	0.09	8.348	0.000	0.769	20.458	0.000
GHRM 4 <- GHRM	0.08	4.184	0.000	0.605	10.915	0.000
GHRM 5 <- GHRM	0.15	7.988	0.000	0.765	27.550	0.000
GHRM 6 <- GHRM	0.11	6.475	0.000	0.784	22.409	0.000
GHRM 7 <- GHRM	0.11	9.556	0.000	0.799	29.766	0.000
GHRM 8 <- GHRM	0.12	10.415	0.000	0.855	46.583	0.000
GHRM 9 <- GHRM	0.14	13.017	0.000	0.858	48.583	0.000
PCSR 1 <- PCSR	0.07	5.670	0.000	0.620	11.631	0.000
PCSR 10 <- PCSR	0.09	8.702	0.000	0.748	22.663	0.000

PCSR 11 <- PCSR	0.089	6.783	0.000	0.618	11.574	0.000
PCSR 12 <- PCSR	0.054	4.605	0.000	0.733	18.626	0.000
PCSR 13 <- PCSR	0.039	3.325	0.001	0.681	13.640	0.000
PCSR 14 <- PCSR	0.072	8.992	0.000	0.730	19.284	0.000
PCSR 15 <- PCSR	0.051	4.334	0.000	0.690	13.261	0.000
PCSR 16 <- PCSR	0.047	4.420	0.000	0.598	10.421	0.000
PCSR 17 <- PCSR	0.062	6.779	0.000	0.587	10.225	0.000
PCSR 18 <- PCSR	0.047	5.228	0.000	0.548	9.866	0.000
PCSR 2 <- PCSR	0.082	8.924	0.000	0.750	20.180	0.000
PCSR 3 <- PCSR	0.092	10.609	0.000	0.795	29.181	0.000
PCSR 4 <- PCSR	0.087	9.571	0.000	0.769	27.076	0.000
PCSR 5 <- PCSR	0.108	9.576	0.000	0.743	25.629	0.000
PCSR 6 <- PCSR	0.095	7.953	0.000	0.745	20.864	0.000
PCSR 7 <- PCSR	0.113	10.130	0.000	0.770	26.815	0.000
PCSR 8 <- PCSR	0.116	11.353	0.000	0.843	46.838	0.000
PCSR 9 <- PCSR	0.064	5.947	0.000	0.761	20.316	0.000
PEB 1 <- PEB	0.215	7.576	0.000	0.651	11.708	0.000
PEB 2 <- PEB	0.249	6.763	0.000	0.604	10.972	0.000
PEB 3 <- PEB	0.194	6.447	0.000	0.496	6.045	0.000
PEB 4 <- PEB	0.182	6.197	0.000	0.623	10.055	0.000
PEB 5 <- PEB	0.325	11.583	0.000	0.811	28.234	0.000
PEB 6 <- PEB	0.350	10.381	0.000	0.677	12.008	0.000

Table 3 shows the outer weights and loads of all the items. The bootstrapping results of the resilience model revealed that all the indicator items are significant ($t>1.96$, $p<0.05$). all the items have substantial weights and loads($t>1.96$, $p<0.05$).

Table 4

Collinearity Statistics (Multicollinearity: VIF) of Sample (n=248)

Items	VIF
Coworkers Advocacy 1	1.832
Coworkers Advocacy 2	2.484
Coworkers Advocacy 3	2.010
GHRM 10	4.295
GHRM 11	4.483
GHRM 12	4.768
GHRM 13	4.221
GHRM 14	5.539
GHRM 15	4.007
GHRM 4	1.817
GHRM 2	7.03
GHRM 3	6.13
GHRM 5	2.515
GHRM 6	3.434
GHRM 7	3.478
GHRM 8	3.840
GHRM 9	4.362
PCSR 1	2.448
PCSR 10	3.000
PCSR 11	2.448
PCSR 12	3.185
PCSR 13	2.184
PCSR 14	2.447
PCSR 15	2.340
PCSR 16	1.927
PCSR 17	2.613
PCSR 18	2.220
PCSR 2	2.184
PCSR 3	2.960
PCSR 4	2.840
PCSR 5	2.320
PCSR 6	3.634
PCSR 7	2.996
PCSR 8	3.890
PCSR 9	2.590
PEB 1	1.453
PEB 2	1.406

PEB 3	1.185
PEB 4	1.602
PEB 5	1.921
PEB 6	1.304

Table 4 shows the collinearity of each item of the model. The threshold value of the VIF should not exceed 5. VIF value of two items of green human resource management slightly exceeds 5 (GHRM 2=7.03, GHRM 3=6.13). Almost all the items of coworker's pro environmental advocacy, perceived corporate responsibility have significant values for outer VIF as shown in table.

Table 5

Reliability Analysis of Instruments

Scale	Cronbach's Alpha	rho_A	Composite Reliability
Coworkers Advocacy	0.841	0.891	0.902
GHRM	0.943	0.954	0.951
PCSR	0.932	0.954	0.948
PEB	0.726	0.750	0.812

Table 5 shows the psychometric properties of scales being used in the study. it revealed that all the scales have good reliability that is more than 0.07. it revealed that the instrument used is highly trustworthy and can be used in a variety of circumstances to measure these concepts at a different point in time

Discriminant validity

In order to access discriminant validity, following methods are used:

- Fornell-Larcker Criterion
- Heterotrait-Monotrait Ratio (HTMT)

Table 6

Fornell-Larcker Criterion

	Coworkers Advocacy	GHRM	PCSR	PEB
Coworkers Advocacy	**0.869**			
GHRM	0.448	**0.786**		
PCSR	0.503	0.693	**0.712**	
PEB	0.671	0.479	0.534	**0.651**

Table 6 reveals that the values on the diagonal are higher than the values below them. This proves that the instrument constructions used in the current study have discriminant validity. The Fornel-Lacker criterion indicates that all items have loaded values greater than 0.6 on the diagonal, which is sufficient to demonstrate discriminant validity for the instrument used in this study.

Table 7

Heterotrait-Monotrait Ratio (HTMT)

	Coworkers Advocacy	GHRM	PCSR	PEB
Coworkers Advocacy				
GHRM	0.469			
PCSR	0.499	0.725		
PEB	0.796	0.544	0.583	

Table 7 shows the Heterotrait-Monotrait Ratio to evaluate correlation between the study's constructs. According to Garson (2016), there is no discriminant validity if the HTMT score is higher than its cut-off value. Kline (2011) claims that the cut-off number for HTMT is 0.85 while Jiang (2008) proposes a cut-off value of 0.90. All values below the 0.85 and 0.90 thresholds arE displayed in table. So, all the variables of the current study have good discriminant validity.

Structural model of the study

The structure model of the study includes following parts

- Path coefficient
- R squared
- Total Indirect Effect (Mediation analysis)

Table 8

R square

	Coefficient	T Values	P Values
Coworkers Advocacy	0.272	5.909	0.000
PEB	0.507	14.311	0.000

The table 8 shows that coworker's pro environmental advocacy is significantly predicted by green human resource management and perceived corporate social responsibility. It shows that green human resource management and perceived corporate social responsibility has 26.5% impact on coworker's pro environmental advocacy. Likewise, employee pro environmental behavior is significantly predicted by green human resource management and perceived corporate

social responsibility, coworker's pro environmental advocacy. it means that green human resource management and perceived corporate social responsibility, coworker's pro environmental advocacy has 50.9% impact on employee pro environmental behavior.
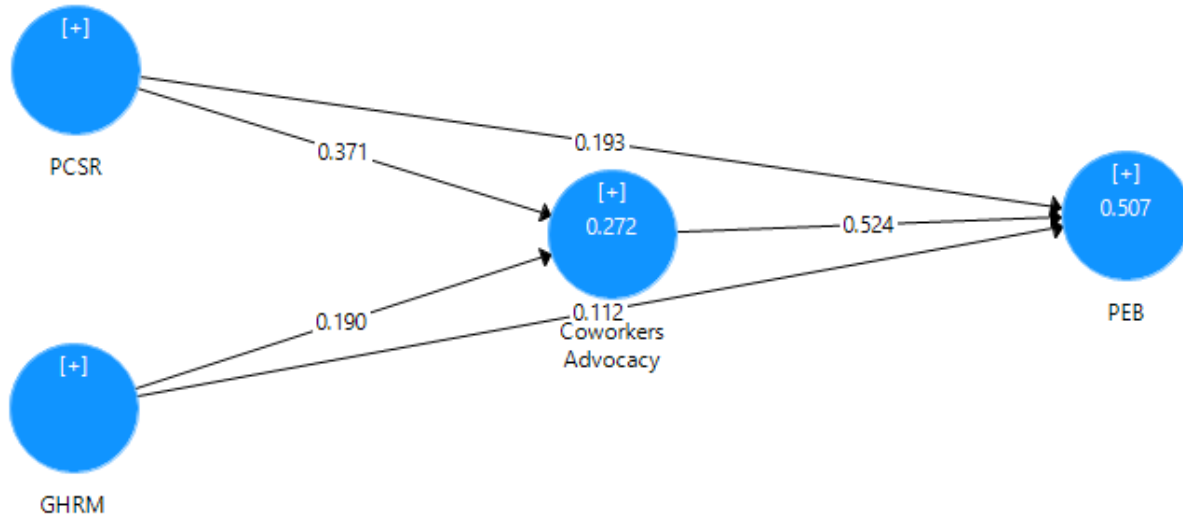
Figure 4.1: Relationship between independent, dependent and mediator variable

Table 9

Path coefficient

	Coefficient	T Values	P Values
PCSR -> PEB	0.387	4.240	0.000
GHRM -> PEB	0.211	2.376	0.018
PCSR -> Coworkers Advocacy	0.371	5.520	0.000
GHRM -> Coworkers Advocacy	0.190	2.470	0.014
Coworkers Advocacy -> PEB	0.524	10.036	0.000

The table 9 shows the direct impact of study variables on each other. It reveals that perceived corporate social responsibility has a significant positive impact on pro environmental behavior of employees (t=4.24, p<0.05). green human resource management significantly positively predict pro-environmental behavior of employees (t=2.37, p<0.05).

Perceived CSR has a significant positive influence on coworker's pro-environmental advocacy (t=5.52, p<0.05). likewise, green human resource management significantly positively predict coworker's pro-environmental advocacy (t=2.47, p<0.05). Pro-environmental behavior of employees is significantly positively predicted by coworker's pro-environmental advocacy (t=10.03, p<0.05).

Table 10

Mediation Analysis

	Coefficient	T Values	P Values
GHRM -> Coworkers Advocacy -> PEB	0.100	2.280	0.023
PCSR -> Coworkers Advocacy -> PEB	0.195	5.250	0.000

The table 10 shows the mediation analysis. It reveals that coworker's pro environmental advocacy significantly positively mediates the relationship between green human resource management and pro-environmental behavior of employees (t=2.28, p<0.05). The relationship between perceived corporate social responsibility and pro-environmental behavior of employees is also significantly positively mediated by coworker's pro-environmental advocacy (t=5.25, p<0.05).

Table 11

Hypotheses Table

Hypotheses	Statement	Accepted/Rejected
H1	Perceived CSR has positive impact on PEB of employees	Accepted
H2	Green human resource management has positive influence on pro-environmental behavior of employees	Accepted
H3	Perceived corporate social responsibility has positive impact on coworker's pro-environmental advocacy	Accepted
H4	Green human resource management has positive impact on coworker's pro-environmental advocacy	Accepted

H5	Pro-environmental advocacy of employees mediates the relationship between perceived corporate social responsibility and pro-environmental behavior of employees.	Accepted
H6	Coworkers' pro-environmental advocacy mediates the relationship between Green human resource management and pro-environmental behavior of employees	Accepted

Chapter V

DISCUSSION AND CONCLUSION

5.1 Discussion of the Findings

The current study was conducted to find some important factors that can influence the pro environmental behavior of teachers of higher education sector including universities of Rawalpindi and Islamabad, Pakistan and to access the relationship between these variables. The role of teachers in the society is very important. They can influence people to contribute to the sustainability of the environment through their superior knowledge (Coburn, Russell, Kaufman, & Stein, 2012).

The present study in conducted to find the impact of green human resource management and perceived CSR on PEB of employees with the mediating role of coworker's pro environmental advocacy. Green recruitment and selection, green compensation and green training and develop was used to access the green human resource management. Moreover, scale developed by Turke (2009), Robertson & Barling, (2013) and Kim et al (2017) were used to measure employee perceived corporate social responsibility, coworker's pro environmental advocacy and pro environmental behavior of employees.

The data was analyzed by using SPSS and Smart PLS. Descriptive analysis like frequencies, mean, standard deviation and range was computed through SPSS. Whereas Smart PLS was used to conduct reliability analysis, discriminant validity, path coefficient and mediation analysis.

Collinearity statistics was analyzed by using structural equation model in smart PLS. Multicollinearity occurs when the independent variables in the regression model are corelated. Table 5 shows the multicollinearity of all the items of the study. The threshold value of multicollinearity is less than 5. Table 5 shows that all the items have subsequent multicollinearity value except the two items of green human resource management scale, that are, GHRM 2 and GHRM 3, they have VIF value slightly higher than the 5, these items were removed from the study.

Psychometric properties of the scale were accessed by using statistical analysis. The reliability of the instruments that are included in the present study was analyzed by using Cronbach's alpha for each variable of the study. Table 5 showed the alpha statistics and co efficient values for the variables of the research study. The reliability of green human resource management

scale is 0.94, reliability of corporate social responsibility scale is 0.93. The researches revealed that the value of coronach alpha more than 0.7 is acceptable. However, reliability can be increased by adding more items to the scale (Taber, 2018). The instruments being used for measuring corporate social responsibility and green human has 18 items. Likewise green human resource management scale has 15 items. The Cronbach alpha of coworker's pro environmental advocacy is 0.84 whereas it has value of 0.73 for pro environmental behavior of employees. So, it can be concluded that all the scales being used in study have satisfactory reliability.

Discriminant validity is also assessed by using two methods that are, Fornell-Larcker Criterion and Heterotrait-Monotrait Ratio (HTMT. Fornell-Larcker Criterion compare the square root of the AVE (average variance extracted) with the correlation of the latent construct. This method requires the latent construct to explain the variance of its own indicator rather than another latent construct (Hamid, Sami1, & Sidek, 2017). So, the value of each construct AVE should be higher than the correlation with latent construct. Table 6 revealed that the values in the diagonal are greater, indicating the discriminant validity of the scale.

HTMT approach is basically the measure of correlation between different constructs. HTMT can be used as a criterion. Using the HTMT as a criterion involves comparing it to the threshold that is already defined. If the value exceeds the given threshold, then it means there is no discriminant validity. Some researchers revealed that the threshold value of HTMT is between 0.85 (Aguirre-Urreta, Marakas, & Elis, 2013). Others revealed that it should be 0.90 (Teo, Srivastava, & Jiang, 2008). Table 7 revealed that the value of HTMT is below 0.7, so we can say that instruments used in the study have discriminant validity.

Path coefficient analysis was conducted to access the total impact of independent variable on the dependent variable by using smart pls. Table 9 revealed that green human resource management significantly positively predict pro environmental behavior of employees. These findings are supported by the present study hypothesis and prior researches (Shreevamshi, Kulkarni, Jadhavar, Vemuri, & Kumar, 2022). Likewise, perceived corporate social responsibility has a significant positive impact on pro environmental behavior of employees. Hypotheses of the study and previous literature has same claim (Latif, Ong, Meero, Rahman, & Ali, 2022). The table 9 revealed that perceived corporate social responsibility has a significant positive impact on the pro environmental advocacy of coworkers. These findings are inclined with the present study

hypothesis and prior researches. It is also revealed that coworker's pro-environmental advocacy is significantly positively predicted by green human resource management (Cheng, Liu, Yuan, Zhang, & 4, 2022). The research study hypothesis and previous literature support these findings (Liu, Guo, Liao, Li, & Wang, 2022).

Mediation analysis was conducted to find whether coworkers pro environmental advocacy mediates the relationship between green human resource management and employees pro environmental behavior; perceived corporate social responsibility and employees pro environmental behavior. Table 10 revealed that coworker's pro environmental advocacy significantly positively mediates the relationship between green human resource management and employees pro environmental behavior; perceived corporate social responsibility and employees pro environmental behavior. These findings are supported by hypotheses and previous researches (Kim, Kim, & Han, 2014; Afsar & Umrani, 2019)

5.2 Conclusion of the Study

The present study aimed to find the impact green human resource management and perceived corporate social responsibility on the PEB with the mediating role of pro-environmental advocacy of coworker. The findings of the study revealed that coworkers' employees pro environmental behavior is significantly predicted by green human resource management and corporate social responsibility. Green human resource management and corporate social responsibility positively predict employee pro environmental advocacy. Moreover, Pro environmental advocacy of coworkers positively significantly predicts the relationship between green human resource and pro environmental behavior and corporate social responsibility and pro environmental behavior. The findings of the study coincide with current study hypotheses and prior literature.

5.3 Limitation of the Study

Following are some of the limitations of the study:

The present study uses the self-administered questionnaire to collect the data. in self-administered questionnaire, there can be an issue of dishonesty. Respondents may not reveal 100% due to variety of reasons including protecting their privacy, giving socially desirable answers (Mondal & Mondal, 2018). Moreover, emotions and feelings of the participants of the study cannot

be interpreted during the self-administer questionnaire. Moods and sentiments of participants such as anger, tiredness while filling the questionnaire can affect the response rate (Höher, Bach, Bach, & Münster, 1997).

This study is cross sectional. It collects data at a given point in time. The main drawback of cross-sectional study is there is typically no evidence of a temporal association between exposure and outcome because the exposure and outcome are concurrently assessed. It is impossible to establish a true cause and effect relationship without longitudinal data. For instance, some variables that are not the part of study (such as intravenous variables) may influence the outcome of the impact rather than the cause. Consequently, it is challenging to make predictions based on these disparities (Solem, 2015).

In the present study, the data is collected only from the employees of higher education sector i.e. PhD faculty members of top four universities (in term of size) of Rawalpindi and Islamabad, Pakistan. The findings of the study cannot be generalized to the employees of other industries. Likewise, they cannot represent the higher education employees in Pakistan and all around the world.

5.4 Future research

The future researches should study theses variables by using the mixed research method i.e., interview method and survey method. Along with survey method, interview method can also be used to get more genuine and detailed responses.

The research recommends that future studies should collect data from the employees of other industries especially tourism industry as tourism has large impact on three kinds of sustainability that are economic, environmental and social. it would be interesting to see how green human resource management and perceived corporate social responsibility is impacting the pro environmental behavior of the employees of tourism industry.

Variables such as technological turbulence can be used as a moderator between perceived corporate social responsibility and employees pro environmental behavior. Moreover, instead of coworker's employee advocacy other variables should be assessed as a mediator in future studies.

5.5 Contributions of the Study

By concentrating on pro-environmental behaviors at the individual level instead of organizational level, this research study contributes to the body of knowledge on green management literature and it offers a wide variety of theoretical insights. The findings of the study support the theoretical arguments that are derived from the social exchange theory. Hence, this theory is supported by the present research study.

This study extends the research on Pro environmental behavior of employees. It combines the diverse academic work of GHRM, perceived corporate social responsibility, coworker's pro environmental advocacy into a single conceptual framework to find how it impacts the pro environmental behavior of employees.

This study adds to the existing literature by including a new theocratical process of green human resource management promoting pro environmental advocacy of coworkers which in turn leads to pro environmental behavior of employees.

This study analyzes the mediating role of pro-environmental behavior of coworkers between green human resource management and pro environmental behavior of employees, this relationship has not given subsequent attention in prior researches.

5.6 Managerial implications

The findings of the present study are applicable to managers and businesses to support pro environmental behavior in workplace of organizations especially in the higher education sector. They should incorporate corporate social responsibility, green human resource management and pro environmental advocacy of coworkers at an individual level. The findings of the study revealed that coworker's pro environmental advocacy significantly and positively mediates the relationship between corporate social responsibility and pro environmental behavior of employees. So, in order to promote pro environmental behavior of employees, organization should include corporate social responsibility policies in their long-term strategy and they must notice the perception of employee towards corporate social responsibility activities at organizational level.

The findings also revealed that green human resource management positively predict pro environmental advocacy of coworkers which in turn leads to the pro environmental behavior of employees. So, organization should follow green human resource management practices such as

green recruitment and selection, green training and development and green compensation to facilitate the pro environmental behavior of employees.

Human resource management strategy should include corporate social responsibility in such a way that can bring a change in the behavior of employees rather instead of forcing them through penalties and policies to follow such practices that are environmentally friendly.

Employees must be equipped with the skills to convince their colleagues to indulge in pro environmental behavior. Also, employees must be self-motivated to indulge in pro environmental behavior on their own instead of advocacy of coworkers. The environment of organization should be supportive for the employees so that they feel free to share their ideas regarding how to become environmentally friendly.

REFERENCES

Afsar, B., & Umrani, W. A. (2019). Corporate social responsibility and pro-environmental behavior at workplace: The role of moral reflectiveness, coworker advocacy, and environmental commitment. *Corporate Social Responsibility and Environmental Management, 27*(1), 109-125. doi:https://doi.org/10.1002/csr.1777

Aguirre-Urreta, M. I., Marakas, G. M., & Elis, M. E. (2013). Measurement of composite reliability in research using partial least squares: some issues and an alternative approach. *SIGMIS Database, 44*(4), 11-43.

Ahmed, S., & Nisar, T. (2015). Green Human Resource Management: Policies and practices. *Cogent Buisness & Management, 2*(1). doi:https://doi.org/10.1080/23311975.2015.1030817

Ali, M. C., Islam, K. M., & Chung, D. S.-J. (2020). A Study Of Green Human Resources Management (Ghrm) And Green Creativity For Human Resources Professionals. *International Journal of Business and Management Future, 4*(2), 57-67. doi:http://dx.doi.org/10.46281/ijbmf.v4i2.857

Ansari, N., Farrukh, M., & Raza, A. (2020). Green human resource management and employees pro-environmental behaviours: Examining the underlying mechanism. *Corporate Social Responsibility and Environmental Management, 28*(2). doi:http://dx.doi.org/10.1002/csr.2044

Asfar, B., & Umrani, W. A. (2020). Corporate social responsibility and pro-environmental behavior at workplace: The role of moral reflectiveness, coworker advocacy, and environmental commitment. *Corporate Social Responsibility and Environmental Management,, 27*, 109-125. doi:https://doi.org/10.1002/csr.1777

Azzone, G., Bianchi, R., & Noci, G. (1997). Implementing environmental certification in Italy: managerial and competitive implications for FIRMS. *Eco-Management and Auditing, 4*(3), 98-108.

Blankenberg, A.-K., & Alhusen, H. (2019). *On the Determinants of Pro-Environmental Behavior: A Literature Review and Guide for the Empirical Economist.* Göttingen: , University of Göttingen, Center for European, Governance and Economic Development Research.

Brass, D. J., & Burkhardt, M. E. (1993). Potential power and power use: An investigation of structure and behavior. *Academy of Management Journal, 36*(3), 441-470. doi:https://psycnet.apa.org/doi/10.2307/256588

Brekke, K. A., & Nyborg, K. (2008). Attracting responsible employees: Green production as labor market screening. *Resource and Energy Economics,, 30*(4), 509-526.

Budhwar, P. S., & RSparrow, P. (2002). An integrative framework for understanding cross-national human resource management practices. *Human Resource Management Review, 12*(3), 377-403. doi:https://doi.org/10.1016/S1053-4822(02)00066-9

Carroll, A. B. (1991). The pyramid of corporate social responsibility: Toward the moral management of organizational stakeholders. *Business Horizons, 34*(4), 39-48. doi:https://doi.org/10.1016/0007-6813(91)90005-G

Chang, D.-s., & Kuo, L.-c. R. (2008). The effects of sustainable development on firms' financial performance – an empirical approach. *Sustain Devlopment, 16*(6), 365-80. doi:https://doi.org/10.1002/sd.351

Cheng, Y., Liu, H., Yuan, Y., Zhang, Z., & 4, J. Z. (2022). What Makes Employees Green Advocates? Exploring the Effects of Green Human Resource Management. *International Journal of Environmental Research and Public Health, 19*(3). doi:https://doi.org/10.3390/ijerph19031807

Chess, D. M., Hanson, J. E., J. A. Pershing, J., & White, S. R. (2007). Prospects for simplifying ITSMbased management through self-managing resources. *IBM Systems Journal, 46*(3), 599-608.

Cialdini, R. B., Reno, R. R., & Kallgren, C. A. (1990). A focus theory of normative conduct: recycling the concept of norms to reduce littering in public places. *Journal of Personality and Social Psychology,, 58*(6), 1015-1026. doi:http://dx.doi.org/10.1037/0022-3514.58.6.1015

Clugston, R. M., & Calder, W. (1999). *Critical Dimensions of Sustainability in Higher Education.* Peter Lang.

Dakhan, a. A., Sohu, J. M., Jabeen, A., Mirani, M. A., Shaikh, J. A., & Iqbal, S. (2021). Impact of Green HRM on Employees Pro-Environmental Behavior: Mediating Role of Women Environmental Knowledge at Higher Education Institutions. *Pro-Environmental Behavior, 20*(12), 202-208. doi:https://www.researchgate.net/project/Pro-Environmental-Behavior-3

Dakhan, S. A., Sohu, J. M., Jabeen, A., M. A., Shaikh, J. A., & Iqbal, S. (2020). Impact of Green HRM on Employees Pro-Environmental Behavior: Mediating Role of Women Environmental Knowledge at Higher Education Institutions. *International Journal of Computer Science and Network Security, 20*(12), 202-208.

DUBOIS, C. L., & DUBOIS, D. A. (2012). . Strategic HRM as social design for environmental sustainability in organization. *Human Resource Management,, 51*(6), 799–826. doi:10.1002/hrm.21504

EuropeanCommission. (2001). Green paper: Promoting a European framework for corporate social responsibility.

Fan, Y., Chen, J., Shirkey, G., Ranjeet John, Wu, S. R., Park, H., & Shao, C. (2016). Applications of structural equation modeling (SEM) in ecological studies: an updated review. *Ecological Processes, 5*(19). doi:https://doi.org/10.1186/s13717-016-0063-3

Frese, M., & Fay, D. (2001). Personal initiative: An active performance concept for work in the 21st century. *Research in Organizational Behavior, 23*, 133-187.

Gkorezis, P., & Petridou, E. (2019). Corporate social responsibility and pro-environmental behaviour: organisational identification as a mediator. *European Journal of International Management, 11*(1), 1-18.

Gonzalez, R. (2004). The Use of Information Technology in Training Human Resources: An E-Learning Case Study. *Journal of European Industrial Training, 28*(5).

Groth, M., Goldman, B. M., Gilliland, S. W., & Bies, R. J. (2002). Commitment to legal claiming: influences of attributions, social guidance, and organizational tenure. *Journal of Applied Psychology, 87*(4), 781-788. doi:https://doi.org/10.1037/0021-9010.87.4.781

Hamid, M. R., Sami1, W., & Sidek, M. (2017). Discriminant Validity Assessment: Use of Fornell & Larcker criterion versus HTMT Criterion. *Journal of Physics*. doi:10.1088/1742-6596/890/1/012163

Höher, J., Bach, T., Bach, T., & Münster, A. (1997). Does the Mode of Data Collection Change Results in a Subjective Knee Score?: Self-Administration Versus Interview. *The American Journal of Sports Medicine, 25*(5). doi:https://doi.org/10.1177%2F036354659702500509

Homans, G. C. (1958). Social behavior as exchange. *American Journal of Sociology,, 63*, 597–606. doi:https://psycnet.apa.org/doi/10.1086/222355

Hulber, C. (2020). Sustainable HCI: promoting pro-environmental behaviour through technology. doi:http://dx.doi.org/10.13140/RG.2.2.13961.60000

Hussain, D. A. (2018). GREEN HUMAN RESOURCE MANAGEMENT (GHRM) PRACTICES IN ORGANIZATIONS: A COMPREHENSIVE LITERATURE SURVEY. *Journal of Management Research and Analysis, 5*(2), 112-117.

Jahan, N., & Kim, S. W. (2021). Understanding online community participation behavior and perceived benefits: a social exchange theory perspective. *PSU Research Review, 5*(2), 85-100. doi:http://dx.doi.org/10.1108/PRR-12-2019-0036

Jamali, D., Mezher, T., & Bitar, H. (2006). Corporate Social Responsibility and the Challenge of Triple Bottom Line Integration: Insights from the Lebanese Context,. *International journal of environment and sustainable development, 5*(4), 395-414. doi:https://doi.org/10.1504/IJESD.2006.011557

Jaworski, B. J., & Kholi, A. K. (1993). Marketing orientation: antecedents and consequences. *Journal of Marketing, 57*(3), 53-71.

Jilani, G., Yang, G., & Siddique, a. (2021). Corporate Social Responsibility and Pro-Environmental Behavior of the Individuals from the Perspective of Protection Motivation Theory. *Sustainability, 13*(23). doi:https://doi.org/10.3390/su132313406

Jyoti, K. (2019). Green HRM –People Management Commitment to Environmental Sustainabilit. 1332-1346.

Kholi, A. K., & Jaworski, B. J. (1990). Market-orientation: construct, research propositions, andmanagerial implications. *Journal of Marketing, 54*, 1-18.

Latif, B., Ong, z. S., Meero, A., Rahman, A. A., & Ali, M. (2022). Employee-Perceived Corporate Social Responsibility (CSR) and Employee Pro-Environmental Behavior (PEB): The Moderating Role of CSR Skepticism and CSR Authenticity. *Sustainability, 14*(3). doi:https://doi.org/10.3390/su14031380

Leão-Aguiar, L., Ferreira, E. d., & Marinho, M. (2005). What Do We Mean by Corporate Social Responsibility in the Construction Sector? *Conference on Sustainable Building South East Asia, Kuala Lumpur, 11-13 April.*

Liu, Z., Guo, Y., Liao, J., Li, Y., & Wang, X. (2022). The effect of corporate social responsibility on employee advocacy behaviors: a perspective of conservation of resources. *Chinese Management Studies, 16*(1), 140-161. doi:http://dx.doi.org/10.1108/CMS-08-2020-0325

Lülfs, R., & Hahn, R. (2013). Corporate Greening beyond Formal Programs, Initiatives, and Systems: A Conceptual Model for Voluntary Pro-environmental Behavior of Employees. *Eur Manag Rev, 10*(2), 83-98. doi:https://doi.org/10.1111/emre.12008

M, B. P. (1964). *Exchange and power in sociai life.* New York: Department of Sociology, Universtly of Chicago.

Marrewijk, M. v., & Hardjono, T. W. (2003). European Corporate Sustainability Framework. *Int. J. Bus. Perform. Manag.*, 213–222.

Mason, R. B. (2007). The external environment's effect on management and strategy: A complexity theory approach. *Management Decision, 45*(1), 10-28.

Matten, D. (2006). Why Do Companies Engage in Corporate Social Responsibility? *The ICCA handbook on corporate social*.

McDonald, F. V. (2014). Developing an Integrated Conceptual Framework of Pro-Environmental Behavior in the Workplace through Synthesis of the Current Literature. *Administrative Sciences,, 4*(3), 276-303. doi:https://doi.org/10.3390/admsci4030276

Mehta, K., & Chugan, P. K. (2015). Green HRM in Pursuit of Environmentally Sustainable Business. *Universal Journal of Industrial and Business Management, 3*(3), 74-81. doi: 10.13189/ujibm.2015.030302

Midden, C., & Ham, J. (2018). Persuasive Technology to Promote Pro-Environmental Behaviour.

Mishra, P. (2017). Green human resource management: A framework for sustainable organizational development in an emerging economy. *International Journal of Organizational Analysis, 25*(1). doi:http://dx.doi.org/10.1108/IJOA-11-2016-1079

Mondal, H., & Mondal, S. (2018). Social desirability bias: A confounding factor to consider in survey by self-administered questionnaire. *Indian Journal of Pharmacology, 50*(3), 141-145. doi:https://doi.org/10.4103%2Fijp.IJP_15_17

Moorman, C., & Miner, A. S. (1997). The Impact of Organizational Memory on New Product Performance and Creativity. *Journal of Marketing Research, 34*(1), 91-106.

Murtaza, S. A., Mahmood, A., Saleem, S., Ahmad, N., Sharif, M. S., & Molnár, E. (2021). Proposing Stewardship Theory as an Alternate to Explain the Relationship between CSR and Employees' Pro-Environmental Behavior. *Sustainability, 13*(15). doi:https://doi.org/10.3390/su13158558

Nejatia, M., Rabieib, S., José, C., & Jabbourc, C. (2017). Envisioning the invisible: Understanding the synergy between green human resource management and green supply chain management in manufacturing firms in Iran in light of the moderating effect of employees' resistance to change. *Journal of Cleaner Production, 168*, 163-172. doi:https://doi.org/10.1016/j.jclepro.2017.08.213

Norton, T. A., Parker, S. L., & Zacher, H. (2015). Employee Green Behavior: A Theoretical Framework, Multilevel Review, and Future Research Agenda. *Organization & Environment, 28*, 103–125. doi:https://doi.org/10.1177%2F1086026615575773

Ogbeibu, S., Burgess, J., Emelifeonwu, J., & Pereira, V. (2020). How green HRM and technological turbulence predicts green product innovation: a STARA tale. *presented at British Academy of Management 2020 Conference in the Cloud, .*

Ogbeibu, S., Emelifeonwu, J., Senadjki, A., Gaskin, J., & Kaivo-oja, J. (2020). Technological turbulence and greening of team creativity, product innovation, and human resource management: Implications for sustainability. *Journal of Cleaner Production*.

Peattie, K., & Ratnayaka, M. (1992). Responding to the Green Movement. *Industrial Marketing Management, 21*(2), 103-110.

Picón, A., Castro, I., & Roldán, J. L. (2014). The relationship between satisfaction and loyalty: A mediator analysis. *Journal of Business Research, 67*(5), 746-751. doi:10.1016/j.jbusres.2013.11.038

Porter, M. E., & Kramer, M. R. (2006). The link between corporate social responsibility and competitive advantage. *Harvard business review, 84*(12), 78–92.

Ramus, C. A., & Killmer, A. B. (2007). Corporate greening through prosocial extrarole behaviours – a conceptual framework for employee motivation. *Buisness Strategy and Innovation, 16*(8), 554-570. doi:10.1002/bse.504

Ren, S., Tang, G., & Jackson, S. (2018). Green human resource management research in emergence: A review and future directions. *Asia Pacific Journal of Management, 35*(3), 769-803,.

Renwick, D. D., & Maguire, D. S. (2008). Green HRM: A review, process model, and research agenda. *University of Sheffield Management School, 1*, 1-46.

Renwick, D. W., Redman, T., & Maguire, S. (2013). Green Human Resource Management: A Review and Research Agenda. *Int. J. Manag. Rev*, 1–14.

Saeed, B. B., Afsar, B., Hafeez, S., Khan, I., Tahir, M., & Afridi, M. A. (2019). Promoting employee's proenvironmental behavior through green human resource management practices. *Corporate Social Responsibility and Environmental Management, 26*(2), 424-438. doi:https://doi.org/10.1002/csr.1694

Saifulina, N., Carballo-Penel, A., & Ruzo-Sanmartín, E. (2020). Sustainable HRM and Green HRM: The Role of Green HRM in Influencing Employee Pro-environmental Behavior at Work. *Journal of Sustainability Research, 2*(3). doi:https://doi.org/10.20900/jsr20200026

Salancik, G. R., & Pfeff, J. (1978). A social information processing approach to job attitudes and task design. *Administrative Science Quarterly,, 23*(2), 224–253.

Sarkar, R. (2008). Public Policy and Corporate Environmental Behaviour: a Broader View. *corporate Social Responsibility and Environmental Management, 15*(2), 281-297. doi:http://dx.doi.org/10.1002/csr.167

Scherbaum, C., Popovich, P. M., & Finlinson, S. (2008). Exploring Individual-Level Factors Related to Employee Energy-Conservation Behaviors at Work. *Journal of Applied Social Psychology, 38*(3), 818–835. doi:https://doi.org/10.1111/J.1559-1816.2007.00328.X

Scot, W. R., & Davis, G. F. (2003). *Organizations: Rational, natural, and open systems* .

Shah, S. H., Cheema, S., Al-Ghazal, B. M., Ali, M., & Rafiq, N. (2020). Perceived corporate social responsibility and pro-environmental behaviors: The role of organizational identification and coworker pro-environmental advocacy. *Corp Soc Responsib Environ Manag*, 1-12.

Shen, J., Dumot, J., & Deng, X. (2018). Employees' Perceptions of Green HRM and Non-Green Employee Work Outcomes: The Social Identity and Stakeholder Perspectives. *Group Organ Manag*, 594-622.

Shreevamshi, D., Kulkarni, D. V., Jadhavar, S. S., Vemuri, D. V., & Kumar, A. (2022). ROLE OF GREEN HRM IN ADVOCATING PRO-ENVIRONMENTAL BEHAVIOR AMONG EMPLOYEES. *Journal of Positive School Psychology, 6*(2).

Shurati, L., & Sugiarto, A. (2020). A Qualitative Study of Green HRM Practices and their Benefits in the Organization: An Indonesian Company experience. *Business: Theory and Practice,, 21*(1), 200-211.

Solem, R. C. (2015). Limitations of a Cross Sectional Study. doi:https://doi.org/10.1016/j.ajodo.2015.05.006

SoonHo, K., Minseong, K., HyeSook, H., & Holland, S. (2016). The determinants of hospitality employees' pro-environmental behaviors: The moderating role of generational differences. *Int J Hosp Manag, 52*, 55-67.

Stern, P. C. (2000). New Environmental Theories: Toward a Coherent Theory of Environmentally Significant Behavior. *Journal of Social Issues, 56*(3), 407-424. doi: https://doi.org/10.1111/0022-4537.00175

Taber, K. S. (2018). The Use of Cronbach's Alpha When Developing and Reporting Research Instruments in Science Education. *Research in Science Education, 48*, 1273–1296. doi:https://doi.org/10.1007/s11165-016-9602-2

Taylor, B. (2012). Agri-political Organizations in Environmental Governance: Representing Farmer Interests in Regional Partnerships. *Journal of Environmental Policy & Planning, 14*(4), 337-359. doi:https://doi.org/10.1080/1523908X.2012.714565

Teo, T. S., Srivastava, S. C., & Jiang, L. (2008). Trust and electronic government success: an empirical study. *Journal of Management Information Systems, 25*(3), 99-132. doi:https://doi.org/10.2753/MIS0742-1222250303

Uddin, Bela, M., Hassan, R., & Tarique, K. M. (2008). "Three Dimensional Aspects of Corporate Social Responsibility. *Daffodil International University Journal of Business and Economics, 3*(1), 199-212.

Unworth, K., Dmitrieva, A., & Adriasola, E. (2013). Changing behavior: Increasing the effectiveness of workplace interventions in creating pro-environmental behavior change. *Journal of Organizational Behavior, 34*, 211–229.

Wu, Q., Cherian, J., Samad, S., Comite, U., Hu, H., Gunnlaugsson, S. B., . . . Sial, M. S. (2021). The Role of CSR and Ethical Leadership to Shape Employees' Pro-Environmental Behavior in the Era of Industry 4.0. A Case of the Banking Sector. *Sustainability, 13*(17). doi:https://doi.org/10.3390/su13179773

Yakusak, E. E. (2015). *Examining The Recent Technological Changes In The Aspect Of Hrm Practice: A Case Study Of Hr Practitioners In Headhunt International* .

Annexure-A

HEC Universities ranking to estimate sample size

General Universities (*Large)

No.	Institute	Teaching Quality	QA Criteria	Research	Total Score
1	University of the Punjab, Lahore	15.89	17	12.18	45
2	University of Karachi, Karachi	15.11	10	10.67	36
3	Bahauddin Zakariya University, Multan	12.08	12	9.76	34
4	University of Peshawar, Peshawar	12.06	10	10.43	32
5	International Islamic University, Islamabad	9.12	15	6.83	31
6	Federal Urdu University of Arts, Science & Technology, Islamabad	8.84	17	2.84	29
	Govt. College University, Faisalabad	8.06	18	2.95	29
7	University of Sargodha, Sargodha	8.35	13	4.61	26
8	Hazara University Mansehra	8.63	13	3.16	25
	The Islamia University of Bahawalpur	9.33	10	5.69	25
	University of Sindh, Jamshoro	8.30	11	5.74	25
9	Bahria University, Islamabad	6.35	15	2.18	24
10	University of Education, Lahore	4.94	15	2.70	23
11	National University of Modern Languages, Islamabad	5.69	14	2.54	22
	University of Gujrat, Gujrat	5.97	14	1.58	22
12	Preston University, Kohat	7.05	7	0.37	14
13	University of Lahore, Lahore	6.31	5	0.72	12

*Student enrollment > 7000

Annexure-B

Morgan Sample Size Table

N	S	N	S	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note.—N is population size. S is sample size.

Source: Krejcie & Morgan, 1970

Annexure C

Informed Consent

<u>INFORMED CONSENT</u>

We are conducting this research exploring some job-related factors among the employees of higher education sector including public and private universities. We ensure the confidentiality of the information provided by you for this research. Your decision to participate in this study is completely voluntary and you may withdraw from participation at any time without penalty. Your cooperation will be highly appreciated. Thank you.

SIGNATURE:

DATE:

Annexure D

Demographic Data Sheet

Demographic Data Sheet

1.	Gender	Male ☐ Female ☐
2.	Age	20-30 ☐ 31-40 ☐ 41-50 ☐ 51-60 ☐ 61 and above ☐
3.	Educational Qualification	BS or Equivalent ☐ MS or Equivalent ☐ PhD ☐ Post doc ☐
4.	Marital Status	Single ☐ Married ☐ Other: _____
5.	Organization type	Government ☐ Private☐
6.	Organization name	
7.	Total experience	Less than 5 years ☐ 5-10 years ☐ 11-15 years ☐ 16-20 years ☐ 21 years and above ☐

Annexure E

Perceived Corporate Social Responsibility Scale

Perceived Corporate Social Responsibility Scale

Please rate how strongly you agree or disagree with each of the following statements by checking appropriate responses:

	Strongly disagree	disagree	Neutral	Agree	Strongly agree
1. My organization participates in activities which aim to protect and improve the quality of the natural environment.					
2. My organization makes investment to create a better life for future generations.					
3. My organization implements special programs to minimize its negative impact on the natural environment.					
4. My organization targets sustainable growth which considers future generations.					
5. My organization supports nongovernmental organizations working in problematic areas.					
6. My organization contributes to campaigns and projects that promote the well-being of the society.					
7. My organization encourages its employees to participate in voluntarily activities.					
8. My organization emphasizes the importance of its social responsibilities to the society.					

9. My organization policies encourage the employees to develop their skills and careers.					
10. The management of My organization is primarily concerned with employees' needs and wants.					
11. My organization implements flexible policies to provide a good work & life balance for its employees.					
12. The managerial decisions related with the employees are usually fair.					
13. My organization supports employees who want to acquire additional education.					
14. My organization respects consumer rights beyond the legal requirements.					
15. My organization provides full and accurate information about its products to its customers (students).					
16. Customer satisfaction is highly important for our company.					
17. My organization always pays its taxes on a regular and continuing basis.					
18. My organization complies with legal regulations completely					

Annexure-F

Green Human Resource Management Scale

Green Human Resource Management Scale

Please rate how strongly you agree or disagree with each of the following statements by checking appropriate responses:

	Strongly disagree	disagree	Neutral	Agree	Strongly agree
1. My organization is very particular about mainly recruiting and selecting employees with environmental concerns, knowledge and attitude					
2. My organization's recruitment focuses on applicants with environmental insights, attitude and concern.					
3. My organization is rigorous in identifying, recruiting, assessing and selecting new employees with environmental concerns, knowledge and attitude.					
4. Applicants for positions in my organization, undergo well designed interviews which includes questions about their environmental attitude, knowledge, concerns					
5. Environmental goals and objectives for leaders are					

implemented in my organization.					
6. Assessment of leaders comprises of their environmental performance.					
7. Organizational members' assessment comprises of their environmental performance					
8. There is compensation of non-monetary incentives for achieving targeted environmental performance.					
9. Variable compensation payment is based on environmental performance.					
10. Through organization's environmental awards, employees get recognized for implementing initiative for environmental management.					
11. My organization offers ecological training for employees.					
12. My organization offers ecological training for leaders					
13. Responsibility towards the environment, is part of the job description.					
14. Organizational members are involved in matters					

concerning environmental issues.					
15. Organizational members who receive ecological training have the opportunity to implement green knowledge in everyday activities					

Annexure G

Coworkers' Pro-environmental advocacy Scale

Coworkers' Pro-environmental advocacy Scale

Please rate how strongly you agree or disagree with each of the following statements by checking appropriate responses:

	Strongly disagree	disagree	Neutral	Agree	Strongly agree
1. I try to convince my group members to reduce, reuse, and recycle office supplies in the workplace					
2. I work with my group members to create a more environmentally friendly workplace					
3. I share knowledge, information, and suggestions on workplace pollution prevention with other group members					

Annexure H

Pro-environmental Behavior Scale

Pro-environmental Behavior Scale

Please rate how strongly you agree or disagree with each of the following statements by checking appropriate responses:

	Strongly disagree	disagree	Neutral	Agree	Strongly agree
1. I print double sided whenever possible.					
2. I put compostable items in the compost bin					
3. I put recyclable material (e.g., cans, paper, bottles, and batteries) in the recycling bins.					
4. I bring reusable eating utensils to work (e.g., travel coffee mug, water bottle, reusable containers, reusable cutlery).					
5. I turn lights off when not in use.					
6. I take part in environmentally friendly programs (e.g., bike/walk to work day, bring your own local lunch day).					
7. I make suggestions about environmentally friendly practices to managers and/or environmental committees, in an effort to increase my organization's environmental performance.					

\

Annexure I

Plagiarism Report

THESIS

16% SIMILARITY INDEX

8% INTERNET SOURCES

12% PUBLICATIONS

5% STUDENT PAPERS

1	Submitted to Higher Education Commission Pakistan Student Paper	**2**%
2	Syed Haider Ali Shah, Sadia Cheema, Basheer M. Al - Ghazali, Muhammad Ali, Nosheen Rafiq. "Perceived corporate social responsibility and pro - environmental behaviors: The role of organizational identification and coworker pro - environmental advocacy", Corporate Social Responsibility and Environmental Management, 2020 Publication	**2**%
3	Bilal Afsar, Waheed Ali Umrani. "Corporate social responsibility and pro - environmental behavior at workplace: The role of moral reflectiveness, coworker advocacy, and environmental commitment", Corporate Social Responsibility and Environmental Management, 2019 Publication	**1**%