

**The Effect of Green HRM on Employee Green Behaviors in Higher
Education of Pakistan: The Mediating Mechanism of Green Work
Engagement.**



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Fall-2022

FINAL PROJECT/THESIS APPROVAL SHEET

Viva-Voce Examination

Viva Date **06/02/2023**

Topic of Research: The Effect of Green HRM on Employee Green Behaviors in Higher Education of Pakistan: the Mediating Mechanism of Green Work Engagement.

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DEDICATION

I dedicate this humble effort especially to my beloved and respectable parents and siblings whose love and guidance enables me to accomplish the task of research and whose well wishes have always been a source of my success.

ACKNOWLEDGEMENT

From the deepest of my heart, I would like to thank Almighty ALLAH for the unconditional love He has shown me throughout my life and strength. He has provided me to cope with any challenges that came across in my life.

Words cannot express how grateful I am to my supervisor Miss Hina Samdhani for her invaluable patience and feedback. I also could not have gone on this journey without the help of HOD Research cell Mr. Haider Ali Shah, who generously shared their knowledge and expertise.

I am also grateful to my classmates and cohort members, particularly all the Faculty and Staff Members, for data collection, editing assistance, late-night feedback sessions, and moral support. Thank you also to the university librarians, research assistants, and study participants who influenced and inspired me.

Finally, I would be remiss if I did not mention my family, particularly my parents. Their faith in me has kept me going.

Author's Declaration

I, Masifa Zeeshan Qureshi, hereby state that our research titled “The Effect of Green HRM on Employee Green Behaviors in Higher Education of Pakistan: the Mediating Mechanism of Green Work Engagement.” is my own work and has not been previously submitted by us for taking any form of credit; partial or full, for the award of any degree from this University, or any other academic institution in the world. If the said statement is found to be incorrect at any time, even at or after our graduation, the University has the right to revoke our Master's degrees.

Abstract

This study is about finding the impact of Green HRM on the employees green behaviors with mediating role of mediating mechanism of green work engagement in higher education institutes of Pakistan. The study highlights the significance of environmental and pro-environmental activities practiced at Higher Education institutions. It focused on the impact of green HRM on employee green behavior in Higher Education of Pakistan. Research is based on the social exchange theory (SET) and the job demands-resources model. Data is collected from faculty and staff members of HEC universities who are directly and indirectly influenced by policies. The medium of data collection self-administered questionnaire distributed by hand and shared online. The data analysis revealed that the Green Human Resources Management and mediating variable Green Work Engagement has positively and significantly affected the Green Innovative Work Behavior. The results implies that the managements of the organizations should focused on the Green innovative work behaviors of the employees.

Key Words:

Extra-role green behavior, Green Innovative Work Behavior, Green Work Engagement (GWE), Higher education, Green human resources management (GHRM).

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CHAPTER 01: INTRODUCTION

This study is about finding the impact of Green HRM on the employees green behaviors with mediating role of mediating mechanism of green work engagement in higher education institutes of Pakistan. In this section of the study the Background; Problem statement; Research Objectives; Research Question; Significance of the study are narrated.

1.1 Background of the study:

Economic value of the firms and their promotions are dependent on the company's success in their early ages. Today, firms' must think about reducing biological impressions and attach importance to social and natural variables in addition to monetary ones. Monetary elements that allow the association to find real success in the corporate field and in this way allow investors to benefit. In some previous years, concerns for the global suitability for the firm's showed upward trends with the issues of the environmental concerns(Gupta, 2015), that were rapidly increased due to the revolution in the industry era, making the destruction of the environment (CJC, 2008). Nowadays, in the business world, the ecological image of a product has become a fundamental factor that participates procedures, technical acceptance and classifications (Muster V, 2011).

There is an extraordinary adaptation to the expansion of environmental contamination and waste generated in business, which has come about through the expansion of implementing strategies with a legislative and confidential area fully focused on curbing the rapid erasure of unsustainable assets and the definitive adverse consequences that would entail on cultural results. The corporate area has improved the reception of the management climate. This led to the development of another major step called green governance.

According to (Amy H.I. Lee, 2009), this approach is considered very successful and productive since the mid-2000s. He characterized green management as a technique adapted by associations to coordinate ecological management systems to ensure and estimate natural aspects. Day by day and (Huang, 2001) suggested that the association basically has to adapt to the modern development and guarantee in climate this is very protected as well as advanced. Acceptance of applies has brought various benefits that would ultimately help the business promote the rise of the "green and ruthless" mantra. Assistances related with income contain developments associated with the functional execution of firms, advancement in collaboration, strengthening of authoritative culture, and reduction of large and large costs (Hart, 1997). Organizations are now changing their structures. They become more socially responsible towards their environment, country and society.

1.2 Problem Statement

Increasing higher education institutes among the globe had been naturally moving towards the right practices in the last few years. This concern forces associations to remember ecological practices so that their Human Asset (HR) arrangements gain the upper hand (Leal, 2003). Green Human Resource Practices shows a vital model in the sustainability of the environment (Kim, 2019; O'Donohue, 2016). Behavior of the employees about the environment, when they realized that it is very important and essential to have peaceful environment, it changed and they started adopting such behaviors and attributes which actually help them involve in the Green environment practices and this actually helps their behavior engaging towards the Green Practices (Pham N. T., 2019; Jackson, 2010).

Universities are most often research centers. Educational and research associations are to assume a vital role in accepting tactics as well as options as opposed in solving current environment problems (Benayas, 2012; Disterheft, 2012; Leon-Fernandez, 2015). The institution must also deal with pro-environmental topics in its research. In addition, it must set a precedent in revitalization and recognition of the evolving needs and challenges of environmental management (Finlay, 2012). Therefore, higher education institutions in Pakistan need to anticipate their strategies. They must also align them with recognized educational systems to enhance the impact and practice of GHRM.

1.3 Research Objectives:

The main objective of the study is to find out the impact of the Green HRM practices on Employee Green Behaviors by using the mediating role of the Green work engagement. Other objectives of the study are as follows:

- The research seeks to fill the gaps featured by previous studies.
- This paper fills this opening by dissecting the effect of GHRM practices on the agent approach to acting with the mediating position of green work directed in HEC affiliated institutions.
- The scrutiny highlights the affective implementation of GHRM intervening GWE to measure the effect on employee behavior in HEC institutions situated in twin cities of Islamic Republic of Pakistan.
- This research ensures to be the credible source of learning and investigation for other related topics.

1.4 Research Questions

Following are some of the Research Questions related to this study:

1. Does GHRM affect individual employee outcomes in the education sector?
2. Does GIWB mediate the relationship between GHRM and individual outcomes?
3. Does GHRM influence employee behavior?

1.5 Research Contribution

Countries have developed their human resource strategies to learn about corporate social responsibility. Higher education also manifests itself by contributing to a change in dynamics and a more socially responsible organization. Their motive is environmental friendliness using Green HRM principles. GHRM research is advancing and more investigation is needed (Pham N. T., 2019), especially with regard to the field of advanced education (Gilal, 2019). The first of these is the work of universities as creators of the qualities of society (and a place for debates about these qualities). In addition, universities are significant associations with influencing sustainable turns of events (Godemann et al, 2014).

There are certain tasks in general GHRM studies and high-level green management training. Firstly, adds in composition of general GHRM. Secondly associates with local group data on GHRM for high-level training in Pakistan. Third, a specific responsibility is to establish GIWB in relevance with the GHRM and GWE as mediating factor in the relationship between GHRM and delegated behaviors. How to promote green employee behavior in the service industry has attracted more attention in academic research and industry practice (Jie He, 2021). He emphasized that greening the campus requires greening the human resource management

practices of the university. Most HR departments in the countries have adopted GHRM principles. Almost no research on twin cities of Pakistan focuses on GHRM.

Previously, research was conducted in the context of Palestine. This study contributes to the data collection among universities in twin cities of Pakistan and fills the highlighted gap reported by previous researchers. Also, the findings of this study help to analyze future superintendence in other places for researchers in the context of GHRM. This review also calls for the exploration of other emerging topics of HRM and GHRM in the Pakistani context.

1.6 Significance of study

HRM is developing in the field of supply with new ecological motives. Green human resource management is of paramount importance to achieving its broader goals. Theories of GHRM, GWE, and individual green outcomes are presented in all major proportions with an emphasis on environmentally safe goals. This helps to underline the deeper facts of why green practices are important in and for the organization. Organizations implementing GHRM improve corporate social responsibility practices and strengthen brand image.

Researches have been conducted on various GHRM practices but without informing the Pakistani context. This paper fills this hole by analyzing the impact of GHRM rehearses on the representative way of behaving with the intervening job of green work conducted in higher education foundations. A growing number of universities in Pakistan are incorporating aspects of environmental management into their policies. Implementing green work behavior minimizes environmental damage and saves the organization's capital. GWE promotes employee productivity and decency in their workplace.

Institutions of higher education are the main hub to empower the future generation and young leaders to adhere to environmentally sound practices. Institutions incorporate GHRM and GWE conventions into their systems, instructional education plan, research projects, construction plan, innovation and other basic exercises can produce managers with close relationship with CSR practices. This review also brings awareness of new conventions that might be implemented. It also opens up new aspects of the physiological and physical behavior of employees at their workplace.

1.7 Limitation of the study

The study is generalized and covers only the field of education. This research covers the five main universities of the twin cities. The research question should be answered in other industries as well. Nature of the study is cross-sectional in bias that limits the achievement of cause and effect determinations. Future research could reflect a longitudinal study project that would test model in long term.

CHAPTER 02: LITERATURE REVIEW

This study is about finding the impact of Green HRM on the employees green behaviors with mediating role of mediating mechanism of green work engagement in higher education institutes of Pakistan. In this section, work of the previous scholars related to the variables of this study is explained briefly. There are many studies published in regards with the Green environment, Green Enterprises, Green HRM etc. Some of the work of the previous scholars is explained in this section of the study.

2.1 Higher Education and Human Resource Management

Universities (HEIs) are organizational forms that many readers of this special section will be familiar with, especially when it comes to working with them and for some this will include management responsibilities (Godemann et al, 2014). The connection between advanced education and financial improvement has been emphasized for some time (Gao 1, 2019). Institutions of higher education, along with economic development, are now shifting policies towards greener and more environmentally sustainable operations. Empirical studies, such as Harvey, Williams, and Probert (2013) and Paille, Chen, Boiral, and Jin (2014), have shown that HRM policies and practices are related to individual level employee pro-environmental behaviors. The study provides empirical evidence that higher education makes a significant contribution, (Wenjuan Gao 1, 2019). The importance of adopting natural practices as a fundamental goal of the association's work, therefore, it is important to relate to the help of the human asset that the board rehearses (Jacob, 2012). The motivation to become an environmentally sustainable organization provides key guidelines for university managers to use

human resource management practices as a means of inducing positive work-related attitudes (Aboramadan, 2020).

According to Darvishmotevalia, (2022), the human resource management is actually the strategic approach of the firms to manage their human capital. Companies that have strong green policies in place generally benefit from increasing sales and branding recognition (Wee & Quazi, 2005; Yang, Hong, & Modi, 2011) as well as desirable employee outcomes (Salem, Hasnan, & Osman, 2012). As it is employees who are the agents that implement organizational green policies, it is necessary for organizations to promote and ultimately change employee behavior so that such behavior is aligned with organizational green goals (Daily, Bishop & Govindarajulu, 2009; Ones & Dilchert, 2012; Ramus & Steger, 2000). The effective and efficient management of the human resource by the firm actually leads it to gain the competitive advantage. The human resources that executives practice fundamentally affect the hierarchical responsibility of representatives in advanced education (Aboramadan, 2020). Strategic Tool for the organizations, the HRM can give benefits to the organization in such a way that for both increasing awareness and greening the workplace and society as a whole (Benevene, 2020). In the fight against environmental changes, business plays a vital role. The organization is currently changing its business methodologies and striving for an even more natural centered plan. As firms now shift efforts and strategies towards ecofriendly environment, Human Resource needs to adjust its agenda (Brio, 2008).

Beyond obtaining a social license to operate, businesses are under increasing pressure from stakeholders to take a more proactive approach to environmental issues and become accountable for their environmental impacts in order to ensure that future generations' needs and aspirations

are met. To achieve environmental sustainability, businesses must go beyond compliance and take a more proactive approach.

2.2 Green Human Resources Management and Green Outcomes

The environment is one of the main pillars of corporate social responsibility (CSR) in creating a sustainable business, according to the working model of business ethics (Moscardo et al., 2013; Van Marrewijk, 2003). CSR is defined as a company's voluntary participation in business practises that appear to benefit economic, societal, and environmental well-being (Du et al., 2011). Environmental sustainability necessitates changes in business operations as well as how goods and services are delivered. Employees, as the primary change agents, are critical to the success of any change process in general, and environmental performance improvement in particular (Nejati et al., 2017). Green human resource management (HRM) can be viewed as a way for organisations to practise CSR. Green HRM is critical for the successful implementation of green strategies and environmental management practises (Daily and Huang, 2001; Renwick et al., 2013) and can positively contribute to an organization's environmental sustainability. Green HRM is defined in the literature as a set of specific HRM practises that enable and sustain a proactive approach to environmental management and the achievement of high-performance outcomes in relation to environmental sustainability (Becker et al., 1998).

Given the significance of green HRM in achieving environmental sustainability, there has been a surge in green HRM research (for example, Dumont et al., 2017; Nejati et al., 2017; O'Donohue and Torugsa, 2016; Pham et al., 2019; Renwick et al., 2016; Yu et al., 2020). However, existing research on green HRM antecedents and how they influence organizational outcomes is still largely undefined (Ren et al., 2018). Due to a lack of such research, there is a hazy insight of the factors that give rise to green HRM (i.e. antecedents) and the intermediate process (i.e. mediator)

by which green HRM leads to positive outcomes. Furthermore, as stated by Ren et al. (2018), a deeper understanding of green HRM and its mediating processes is required to properly guide the design of green HRM systems for long-term benefits. Another source of concern is the scarcity of research and insights into how green HRM affects employees. Recognizing the effects of green HRM on employees is a critical step in developing an effective green HRM system in organizations (Ren et al., 2018).

The use of HRM strategies to encourage the sustainable utilization of assets within an organization to accomplish the goal of environmental sustainability is referred to as GHRM. The term GHRM is most commonly used to describe individuals' and executives' concerns in developing approaches and practises toward greater corporate ecological planning (Shafaei et al. 2020). Green benefits can include the use of benefits of the work environment and way of life, extending carbon credits to free bikes, to keep people in the green programme, as they move forward in recognizing their organization Suharti and Sugiarto (Suharti and Sugiarto, 2020). Despite the fact that there are numerous employees, many people believe that it is not their responsibility to help the environment. As they gravitate toward their bosses, the new millennial workforces naturally recognise this (Nagarajan 2020).

As per Rangarajan and Rahm (2011), when companies apply GHRM strategies, they clearly demonstrate that they have a strong business social agenda and value the environment as well as the social priorities of current and prospective employees, both of which lead to external prestige, with the firm becoming more "appealing" to workers. As a result, according to the social identity theory, employees' perceptions of GHRM will result in employee organizational identification.

According to study of Yusoff, (2020), definition of the green human resource practices and their policies can be narrated in such a way that all those activities and human resource policies which ecofriendly and sustaining the environment. Green Human Resources Management (GHRM) is a group of strategies, methodologies, and frameworks that encourage green behaviors among organizational representatives to create naturally delicate, actively fit, and socially capable associations. (Depends on you). GHRM trials have been characterized and conceptualized by several researchers. According to HR literature, different HRM practices may influence employees' behavior through various psychological processes; however, it is still unclear how green HRM influences employees' green behavior in the workplace.

The role of management in achieving a higher level of environmental performance is demonstrated, among other things, by giving workers autonomy to come up with creative solutions to problems, to develop environmental awareness, and to apply their knowledge in this field (Cramer and Roes 1993). That is, environmental performance necessitates both individual and group participation (Hart 1995). Employee motivation and involvement in environmental issues necessitate the design of involvement mechanisms (Hart 1995, Ramus 1997, Chase et al. 1998, Kitazawa and Sarkis 2000), as they lead to problem prevention and the identification of opportunities and processes for improvement (Klassen and McLaughlin 1993). As a result, it would be critical to concentrate more on the impact of the organizational situation factor, i.e., green HRM, on employees' proactive green behaviors, as well as the mediating process regarding how such HRM practises exert significant influence on employees' workplace green behaviors.

According to Dumont, Shen, & Deng, (2017) Businesses are expected to follow the hierarchy as well as help VPs and senior management – including people and human resources – thrive and advance on their sustainability journey. Green recruitment and training to improve the green

skills, capacities and knowledge of workers; a green implementation exam with established green rules for the implementation of geodesy; and the green award to motivate the convincing fulfillment of the association's green goals.

According to Darvishmotevali, (2022), in addition, green management focuses on educating the workforce about environmental goals and creating a competitive advantage based on environmental considerations. Management's role in achieving a greater level of environmental performance is evidenced, among other aspects, by giving the workers autonomy to come up with creative solutions to the problems posed, to develop environmental awareness, and to implement their knowledge in this field (Cramer and Roes 1993). To implement a successful corporate green administrative framework, it is essential to foster many specialized and administrative skills among all association staff (Daily, 2007; Hegde, 2007). Organizations seek to improve resourceful natural management apparatuses and drives that will fundamentally affect the sustainability of the firm and move it to the top.

Grolleau, (2012) explained therefore, to create such a structure, it becomes ideal to have an impressive human asset on which the executives work, including the establishment of thorough procedures for inclusion. Evaluation and award frameworks that incorporate ecological awareness and implementation into the interaction of research. (Chiappetta, 2012) and the preparation and strengthening of programs (Hegde, 2007) that will enable the improvement of the further arrangement of abilities and skills among representatives of "green" (Panda, 2021) organizations. Organizational culture and employee behavior reflect a sustainable approach to the environment. Environmental behavior of employees reflects individual environmentally friendly behavior (Norton, 2015). Workers are expected to reciprocate this natural commitment and effort with their associations by exhibiting green behavior, as associations send signals of

responsibility towards nature, which managers practice by giving clear green goals, green organization and methodology, strong green testing and sustainable remuneration frameworks. GHRM is directly related to green business behavior, empowering green representatives, creating green occupations, and hierarchical citizenship. According to research, the Empirical Examination largely recommends that GHRM is strongly associated with green business behavior, green worker empowerment, green job creation, and hierarchical environmental citizenship (Chaudhary, 2019). Based on the literature, the hypothesis will be:

H₁: GHRM has a significant impact on green employee in-role behavior and environmental behavior.

Understanding employees' workplace attitude (IWB) is essential to improve innovation development (Mulder, 2012). Innovative behavior at workplace is the compound behavior of human resource who create, implement, and apply innovative ideas. IWB proposals options for maintaining advantage from competition and sustaining organizational goals and objectives. (Hanan S & Christopher M, 2021). Green Innovative Work Behavior (GIWB) is defined as representative behavior committed to the age, progress and recognition of green ideas to idea of natural stewardship to creative work attitude.

According to Song, (2020) as per the previous studies that suggests that GHRM behaviors have been directly associated with the green creativity of the organization and its workplace. Thus, employees' perception for GHRM towards the organizational surrounding influence their green creative behavior. In light of past claims, the following hypothesis can be proposed:

H₂: GHRM applies a positive result to the representatives' GIWB.

2.3 Green Human Resources Management and Green Work Engagement

Green HRM practises would promote environmental goals and encourage positive workplace behaviours (Hobfoll, 2001; Jabbar & Abid, 2015). Green HRM practises such as green reward (GR), green performance management (GPM), green training (GT), green selection and recruitment (GSR), and green employment relations (GER) can influence employees' green behaviours (Rani & Mishra, 2014; Renwick et al., 2013). Cantor, Morrow, and Montabon (2012) discovered that green work engagement is influenced by supervisor support and good human resource management practises such as green rewards and green training. This goodness in Green HRM will motivate employees, enhance their skills to demonstrate constructive green behaviors, and persuade them to establish new ideas and to come up with new solutions at the green level (Aboramadan, 2020). Green HRM can also play a motivating role in both extrinsic and intrinsically motivating employees by supporting their development and adding to their career aspirations as an accomplishment, which will promote employee dedication to work (Bakker Arnold & Demerouti, 2008) and especially GWE (Aboramadan, 2020; Arasli, Nergiz, Yesiltas, & Gunay, 2020). Cantor et al. (2012) discovered that green work engagement is influenced by supervisor support and human resource management practices such as green rewards and green training. GWE is an important outcome of GHRM because employees evaluate such practises as positive impacts and events in an organization (Ari, Karatepe, Rezapouraghdam, & Avci, 2020). Furthermore, it was discovered that GWE could mediate the impact of GHRM on green individual behaviors (Ababneh, 2021), green pro-environmental behaviors (Ari et al., 2020), in role green behavior and extra-role green behaviors (Aboramadan, 2020).

The study investigates the role of green human resource management (green HRM) in predicting employee green work engagement (GWE). Schaufeli W. S.-R., (2012) explained that the focused-on work at workplace can be defined as "a positive, fulfilling, work-related state of mind characterized by vigor, dedication, and absorption". GWE can be characterized as how much energy a representative invests in their green energy commitments, as well as the readiness to develop green trials and the rate of soaking up green work. (Aboramadan M., 2022). The Job Demand Framework (JD-R) (Kim K. K., 2020) provides a platform for understanding the relationship between GHRM and GWE from a GHRM and GWE perspective. (Aboramadan M., 2022). According to (Demerouti, 2001), hierarchical and work assets, for example, the human assets that the board tries, can initiate an inspirational system that links these assets to work commitment. GHRM in workplace can be considered inspirational and had a positive relationship with representative work engagement (Schaufeli W. a., 2004). Workforce development and career goals can be worked through assets such as GHRM, this may have a characteristic or extrinsic persuasive component. In light of this conversation, the accompanying speculations developed:

H₃: GHRM has a positive impact on employees' GWE.

2.4 Green Work Engagement and Green Outcomes

According to Ones and Dilchert (2015), Employees' green behaviors can be categorized under the headings of task and in-role performance, extra-role performance, and counter productive work behaviors. GWE explains the amount of energy an employee put in environmental friendly tasks. The willingness to exert effort in performing and absorbing green work. They also narrated that the leadership in the organization played a vital role in the workplace in such a way to motivate the employees' work engagement. This is the primary task of the leaders in the

workplace not just to motivate and engaged their employees' but also to support the employees in case of the difficulty and challenges faced by them.

According to Arasli, et al. (2022), Green outcomes and Green work environment, it had been found that the employees behavior towards the green environment is directly associated with the organizational exchanges towards their employees. The green workplace actually gives motivation to the employees to work in a sustainable environment. The outcomes of the green workplace resulting in the more sustainable environment and highly motivated employees in the workplace. He explained that the green workplace increased the motivation level of the employees as well.

H₄: GWE exerts a positive impact on employees' in-role green behaviors, extra role behavior and GIWB.

2.4 Mediating role of Green Work Engagement

work engagement has been defined as a positive state of mind, which is characterized by high energy, enthusiasm and full concentration at work (Schaufeli et al.,2002), According to Kim et al., this behavior benefits organizations both directly and indirectly by conserving resources and energy and preserving the natural environment for organizational sustainability. Furthermore, green creativity is defined as "the generation of new ideas about green products, green services, green processes, or green practices that are deemed original, novel, and useful". Managers' primary concern is to foster green creativity among employees in order to produce innovative end results. Organizations rely heavily on their employees' behaviors to achieve long-term environmental development. GWE is very important for environmental sustainability in organizations; this engagement can result from obtaining a green reward system, green training,

and supportive management behaviors, which creates employee commitment to green activities (Welmilla & Ranasinghe, 2020). Green HRM practices, such as having sustainability goals and corporate social responsibility within organizations, can also influence green employee engagement (Casey & Sieber, 2016).

According to Aboramadan M., (2022) the opinion of SET (Emerson, 1976), representatives with a significant level of involvement are more inclined to quality social business with the company. Subsequently, accompanying speculations that have been created, workers will show positive results. Overall, work engagement has been shown to be a significant mediator in different investigations. The existence of resources (in this example, GHRM) is believed to stimulate the achievement of goals and, in addition, to provide beneficial business-related behaviors. As a result, workers will be extra interested to involve in positive green behaviors (both at work and in their free time) and spark new green ideas and possibilities. According to the opinion of SET (Emerson, 1976), representatives with a significant level of involvement are more inclined to quality social business with the company (Aboramadan M., 2022). Subsequently, accompanying speculations that have been created, workers will show positive results:

H₅: GWE supports connections between:

a) GHRM and green behavior in the role.

b) GWE supports the link between GHRM and extra-role green behavior.

c) GWE interferes with the link between GHRM and GIWB

2.5 Theory

According to Emerson, (1976), Social Exchange Theory (SET) provides useful insight into the relationship between green HRM and pro-environmental perspectives (P-EP). Scholars used different set of articles and theories for the HR practices and their impact on the interaction among the employees. As per the theory, if the result and impact of the green environment practices are known, then this is very particular that the employees will motivated in adopting such activities and they are more likely to voluntarily participate in the company's environmental plans and activities.

Corresponding to the social exchange theory (SET), an employment relationship is fundamentally an exchange between employees and their organization to maximize their benefits, where 'each (party) has the opportunity to gain something' (Porter, 1985, p. 160) from the relationship. Employees and their organizations exchange material (e.g., monetary) and socio-emotional benefits (e.g. dignity, respect). The reciprocity norm (Gouldner, 1960) is the foundation of SET and one of the most fundamental rules governing human behavior. It ensures that a person will be paid back in a currency that he or she values. To repay their organization for fair treatment and their supervisors for emotional support and the exchange of useful resources. Employees engage in extra-role behaviors to help their organization achieve its goals, according to the SET (Organ, 1988).

According to SET (Emerson, 1976), employees with higher levels of commitment seem more inclined to have a secure and better relationship with their associations. Representatives with a higher level of GWE will have a positive association with the association, as indicated by the association between GWE and green outcomes. GWE could definitely influenced. It can engaged workers not only to contribute in green practices but also in addition to opting for green ways,

and helps various representatives interpret the importance of green behavior for the long-term viability of the organization and community. This seems to contribute to conversations about whether, under what conditions and how cycles of social commitment and commitment to actionable improvement can be triggered, outlined as well as auxiliary cycles of progress (Godemann et al, 2014).

The aim of the survey is to plan model of GHRM in institutions of higher learning (ie, universities in partner urban communities of Pakistan) on the solitary level of outcomes related to green business, particularly green ways in employment. Behavior, extra-job green behavior and GIWB. GWE was guessed as a representative framework among the recently mentioned associations.

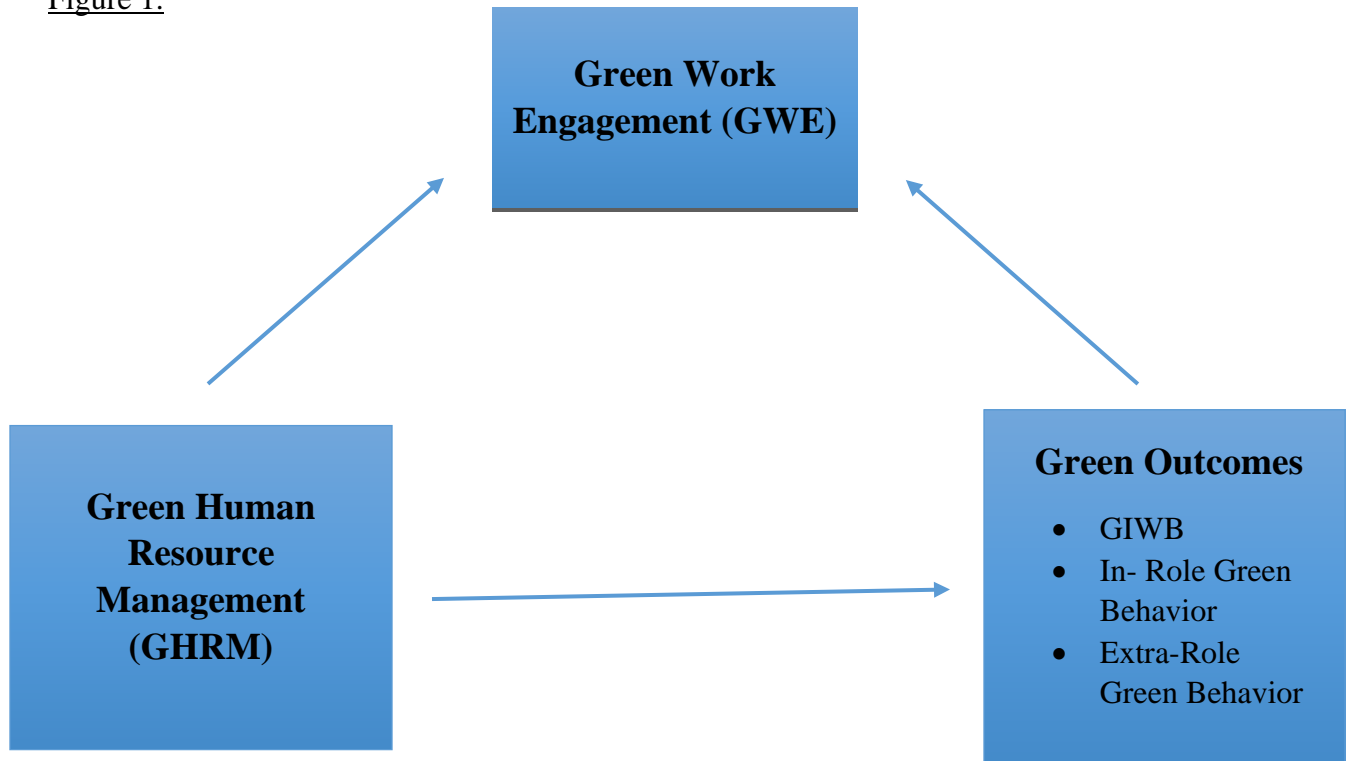
Literature Gap:

There are number of studies in which scholars have particularly studied about the green practices and green environment specially associated with the Human Resource in the workplace but still there is some literature gap. In case of Pakistan and particularly in higher education's institutions, there is no such study that indicates the impact of the green environment on the behavior of the employees. This study cover this literature gap by examining the green environment impact on the employees

CHAPTER 03: RESEARCH METHODOLOGY

3.1 Theoretical Framework

Figure 1.



The relationship between higher education and economic development has long been emphasized. Institutions of higher education, along with economic development, are now shifting policies toward greener and more environmentally sustainable operations. Green HRM is an emerging practice in environmentally friendly organizations. Environmental work engagement mediates the relationship between GHRM and individual green outcomes. The hypothesized implication of the study is that green HRM practices positively increase environmental performance through employees' passion for the environment.

3.2 Research Design

The study examined the impact of GHRM practices on green outcomes, specifically in-role, extra-role and GIWB, through the mediating effects of GWE. With data collected from the higher education sector in Pakistan. The hypothesized results showed that GHRM showed a positive relationship with the above outcome variables. GWE was found to play a significant mediating role between the investigated relationships. The study suggests future research to enrich GHRM literature by further investigating the precise mechanisms governing the relationship between GHRM and its outcomes.

The research is designed to examine the impact of GHRM on the education sector and find answers to the stated research questions. He also mapped to verify the drawn hypotheses whether they were true or not. The study is empirical in nature. Data will be collected from faculty and relevant staff.

3.3 Data Collection:

Data collection will take place through a questionnaire system. The questionnaire is adaptive irrespective to Pakistani culture. It is designed to highlight each variable complementary to the study motive. The questionnaire will be distributed in English, the formal language used in the Pakistani workplace. Some will be distributed online using a link to Google Forms (Google LLC, 1998) and printed questionnaires to an accessible university that will maintain the decorum of the institution. The drop-off and pick up method was used to increase the response rate. The questionnaire will be accompanied by cover letters explaining the main purpose of the research

and ensuring that respondents' personal information will be kept confidential. The questionnaire will be short, clear and will take 10-15 minutes to complete.

3.4 Data Analysis Tool:

Multicollinearity was controlled using variance inflation factors for each item. According to (Hair J.B., 2018), the data does not contain multicollinearity if the VIF values are less than 5. In this research, if the VIF values ranged from 1.061 to 3.304, it means that the data was free of multicollinearity. To ensure that the data is not distorted, CMB is performed. CMB is a common method bias, Harman's one-factor test was used to check the percentage of explanation. As the explained variance was below the cutoff point of 50% (Podsakoff, 2003), this suggests that the data did not contain common method bias (CMB) contamination.

Descriptive statistics, reliability measures and correlations were analyzed using SPSS v.24. To test the study hypotheses, I used partial least squares – structural equation modeling (SPSS v.24.) (Hair, 2018). PLS-SEM was used because it has been widely used in various scientific disciplines such as human resource management (Ringle, 2018), marketing (Hair, 2011), strategic management (Hair J.S., 2012) and hospitality (Ali, 2018). . The SPSS v.24 technique measures path coefficients using ordinary least squares (Rigdon, 2012). In addition, SPSS v.24. deals with correlated measurement errors (Rademaker, 2019) and ordinal measurements (Schuberth, 2018).

3.5 Population and Sample

Researchers choose specific sectors, a country's economy, to conduct their study. This research contributes to the education sector. The education sector is subcategorized into the higher education sector. Higher education institutions of twin cities of Pakistan are considered as the population for this research.

This research presents data from faculty and staff at universities in Pakistan located predominantly in twin cities. Five major renowned universities will be used as a sample. The sample size will be approximately 200. The sample includes all contractual employees covered by the institutions' CSR policy.

3.6 Sample Technique

The research is empirical, therefore quantitative data is received and analyzed. The technique is random and quota sampling. With this technique in mind, a quota was established for five major university faculties and advisors. They are approached for data collection. Data collection is done using questionnaires. They will try to distribute at least fifty questionnaires to each university and try to get maximum response. Within the quota, without restrictions on the collection of data from departments and the faculty type of contract. Therefore, they approach every department with respect to probability sampling technique to get maximum response from random sample. This method will make it possible to perform a strong statistical interference on the whole group.

3.7 Measurement Instruments

Green human resource management. This was measured using a six-item scale developed by (Dumont, Shen, & Deng, 2017) to measure employees' perceptions of the GHRM adopted in their organizations. A sample item was “my university sets green goals for its staff”.

Green work engagement. It was measured using six items taken from (Schaufeli et al. 2006). As this scale was originally developed to measure work engagement, six items were adapted to assess employee environmental engagement. A sample item was “I am enthusiastic about my environmental tasks in my job”. In the role of green behavior. This was measured using a three-item scale developed by (Bissing-Olson et al. 2013). A sample item was “I adequately perform assigned duties in an environmentally friendly manner”. Extra role of green behavior. This was measured using a three-item scale developed by (Bissing-Olson et al. 2013) to assess voluntary green behavior. A sample item was “I take the initiative to act in an environmentally friendly way at work”. Green Innovative Work Behavior (GIWB). A six-item scale developed by (Scott and Bruce, 1994) was borrowed to measure innovative work behavior. This scale has been modified to which green terms have been added to suit the study purposes. A sample item was “I investigate and secure the funding needed to implement new green ideas”.

3.8 Research Model:

$$EGIWB = \alpha + \beta_1GHRM + \beta_2GWE + e$$

Whereas,

EGIWB is Employees Green Innovative Work Behavior;

GHRM is Green Human Resources Management;

GWE is Green work engagement

β is Beta and e is error.

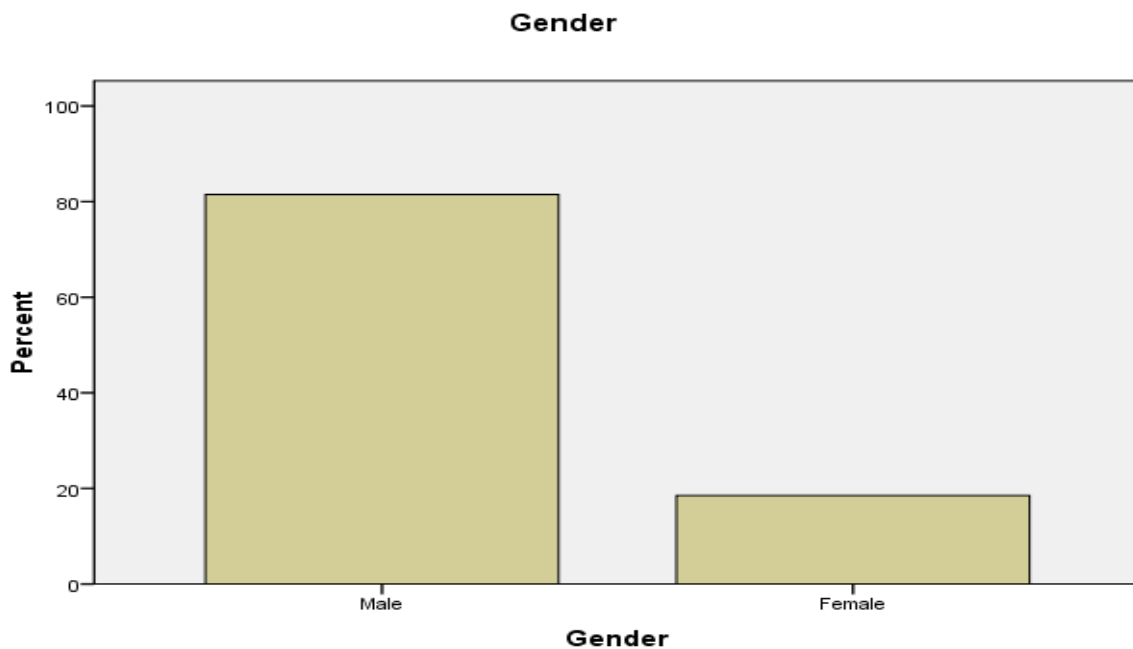
CHAPTER 04: RESULTS AND DATA ANALYSIS

4.1 Data Analysis

4.1.1 Demographics:

Table: Gender Frequency

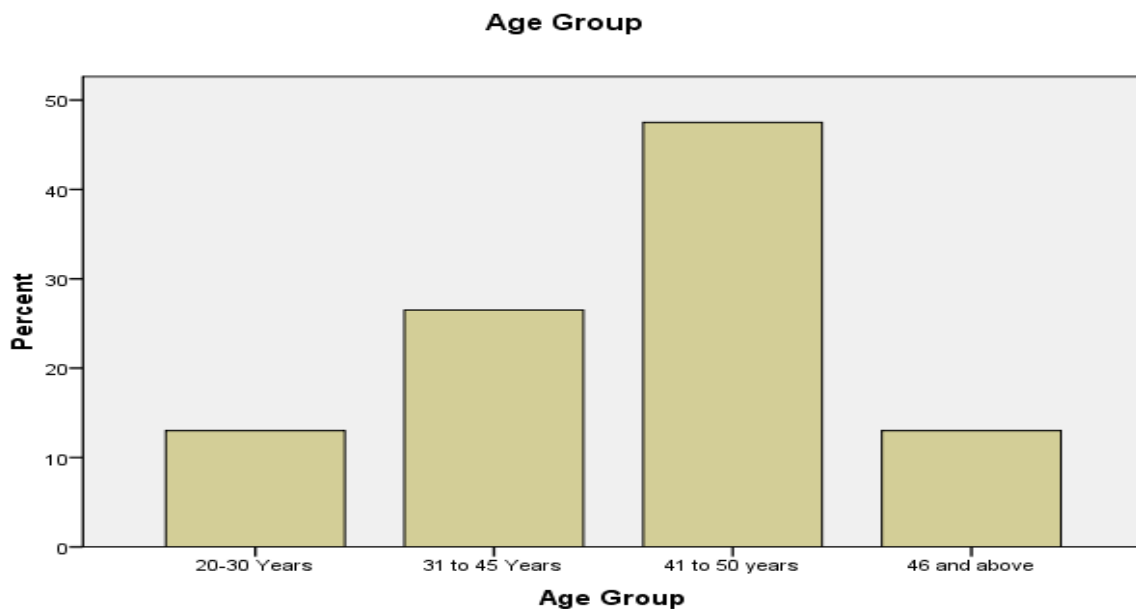
		Gender			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	163	50.8	81.5	81.5
	Female	37	11.5	18.5	100.0
	Total	200	62.3	100.0	
Missing	System	121	37.7		
Total		321	100.0		



In the above table, the frequency analysis of the respondents on the basis of the Gender is represented. As per the table, out of 200 respondents, 163 are male respondents while 37 are female respondents.

Table: Age Group

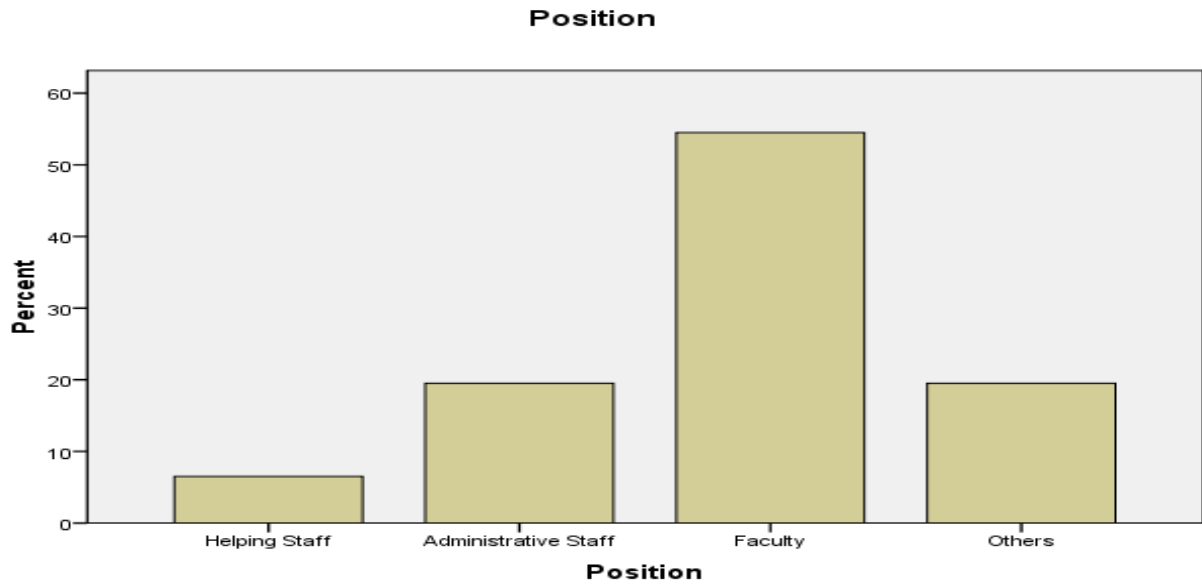
		Age Group			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20-30 Years	26	8.1	13.0	13.0
	31 to 40 Years	53	16.5	26.5	39.5
	41 to 45 years	95	29.6	47.5	87.0
	46 and above	26	8.1	13.0	100.0
	Total	200	62.3	100.0	
Missing	System	121	37.7		
Total		321	100.0		



In the above table, the frequency analysis of the respondents on the basis of the Age Group is represented. As per the table, 26 respondents belong to Age Group of the 20-30 years; 53 respondents belong to Age Group of the 31-40 years; 95 respondents belong to Age Group of the 41-45 years; 26 respondents belong to Age Group of the 46 & above years.

Table: Position

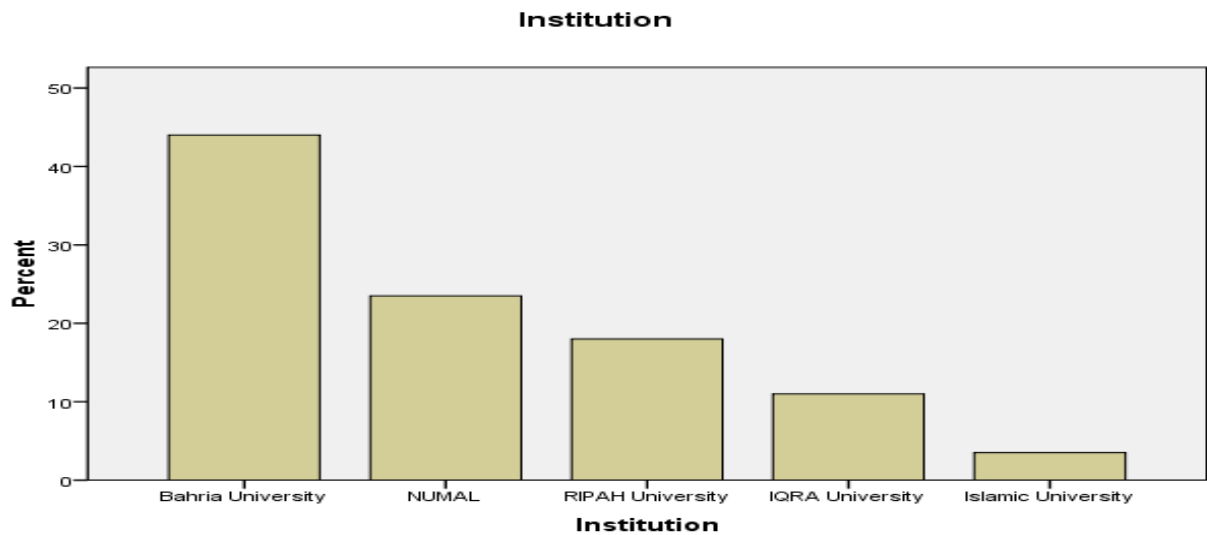
		Position			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Helping Staff	13	4.0	6.5	6.5
	Administrative Staff	39	12.1	19.5	26.0
	Faculty	109	34.0	54.5	80.5
	Others	39	12.1	19.5	100.0
	Total	200	62.3	100.0	
Missing	System	121	37.7		
Total		321	100.0		



In the above table, the frequency analysis of the respondents on the basis of the Position is represented. As per the table above 13 respondents are at Helping Staff position, 39 are Admin Staff, 109 are Faculty Position, 39 performs other types of jobs at their respective positions.

Table: Institution

		Institution			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bahria University	88	27.4	44.0	44.0
	NUML	47	14.6	23.5	67.5
	RIPAH University	36	11.2	18.0	85.5
	IQRA University	22	6.9	11.0	96.5
	Islamic University	7	2.2	3.5	100.0
	Total		200	62.3	100.0
Missing	System	121	37.7		
Total		321	100.0		



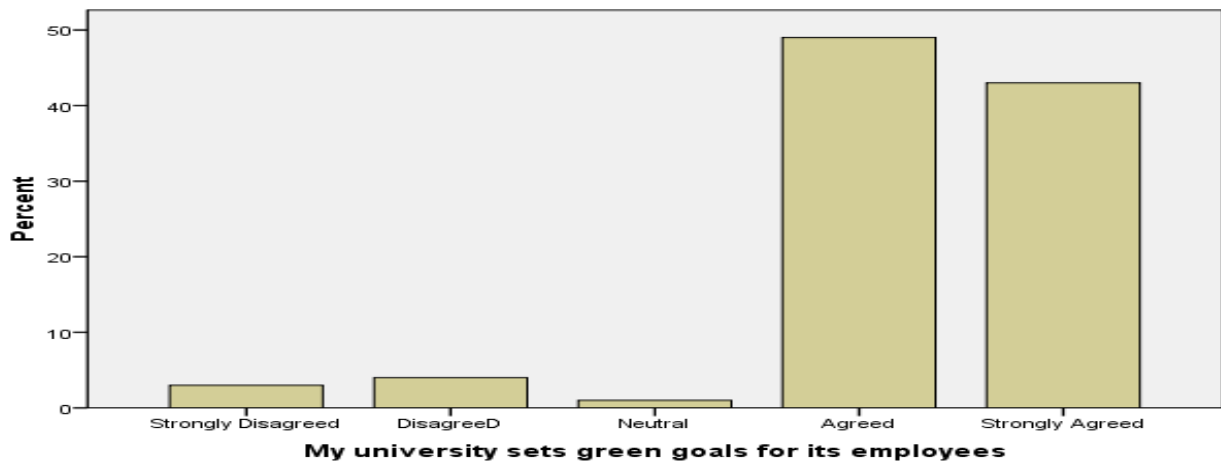
In the above table, the frequency analysis of the respondents on the basis of the Institution is represented. 88 respondents belong to Bahria University, 47 belong to NUML, 36 belong to RIPAH University, 22 respondents belong to IQRA University, 7 belong to Islamic University.

4.1.2. Green Human Resource Management:

Table: Question 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagreed	6	1.9	3.0	3.0
	Disagreed	8	2.5	4.0	7.0
	Neutral	2	.6	1.0	8.0
	Agreed	98	30.5	49.0	57.0
	Strongly Agreed	86	26.8	43.0	100.0
	Total	200	62.3	100.0	
Missing	System	121	37.7		
Total		321	100.0		

My university sets green goals for its employees



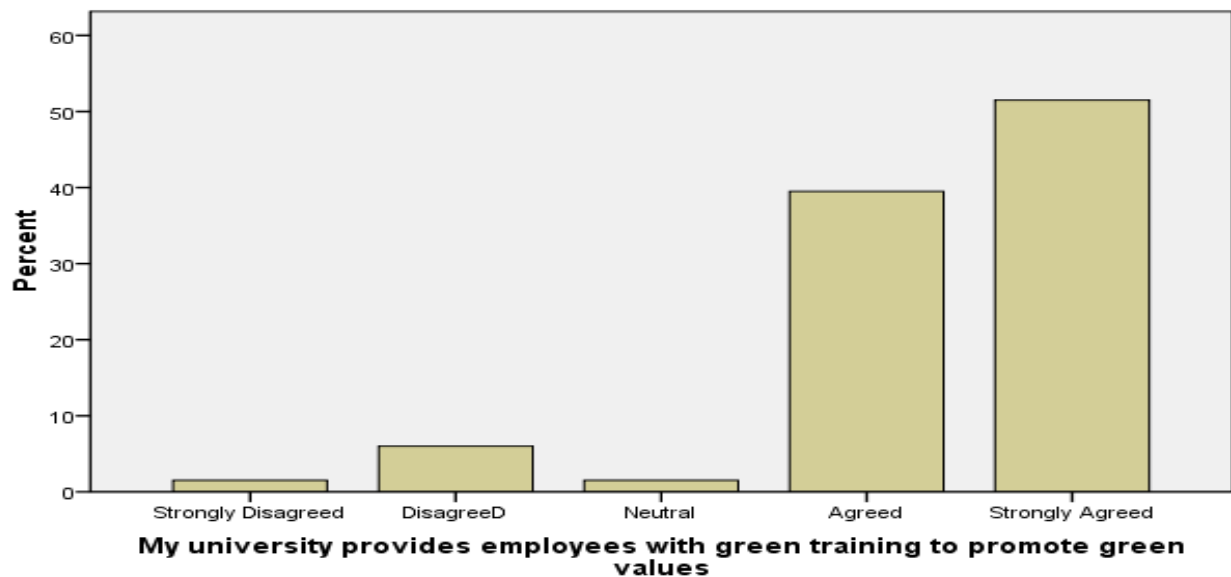
Above table represents the responses from respondents from the statement “*My University sets green goals for its employees*”. As per the table out of 200 respondents, 6 respondents strongly disagreed, 8 disagreed, 2 remains in neutral position while 98 respondents agreed and 86 respondents strongly agreed with the statement.

Table: Question 2

My university provides employees with green training to promote green values

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagreed	3	.9	1.5	1.5
	Disagreed	12	3.7	6.0	7.5
	Neutral	3	.9	1.5	9.0
	Agreed	79	24.6	39.5	48.5
	Strongly Agreed	103	32.1	51.5	100.0
	Total	200	62.3	100.0	
Missing	System	121	37.7		
Total		321	100.0		

My university provides employees with green training to promote green values



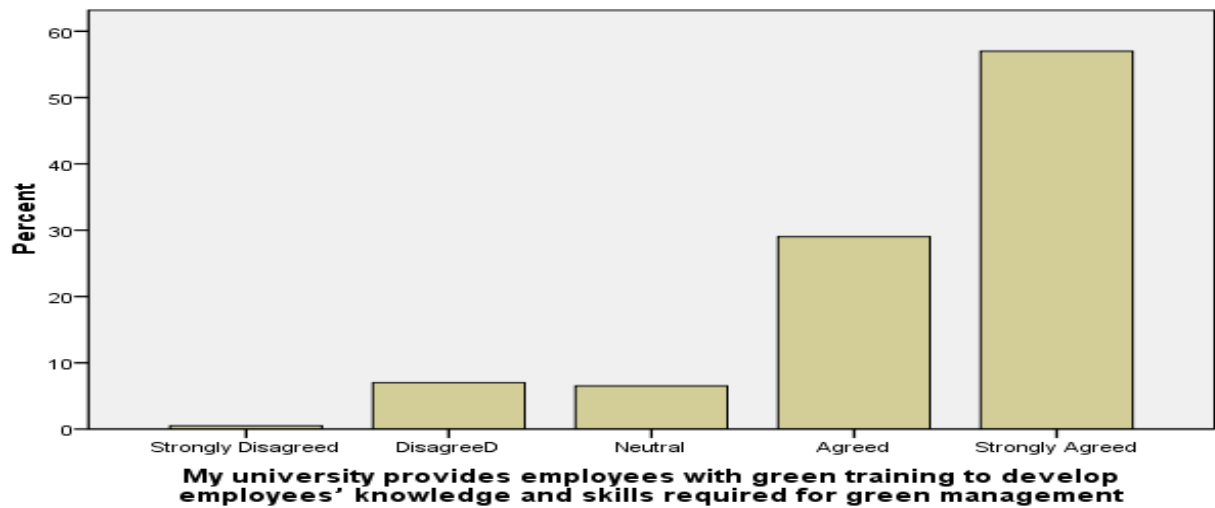
Above table represents the responses from respondents from the statement “*My University provides employees with green training to promote green values*”. As per the table out of 200 respondents, 3 respondents strongly disagreed, 12 disagreed, 3 remains in neutral position while 79 respondents agreed and 103 respondents strongly agreed with the statement.

Table: Question 3

My university provides employees with green training to develop employees' knowledge and skills required for green management

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagreed	1	.3	.5	.5
	Disagreed	14	4.4	7.0	7.5
	Neutral	13	4.0	6.5	14.0
	Agreed	58	18.1	29.0	43.0
	Strongly Agreed	114	35.5	57.0	100.0
Total		200	62.3	100.0	
Missing	System	121	37.7		
Total		321	100.0		

My university provides employees with green training to develop employees' knowledge and skills required for green management



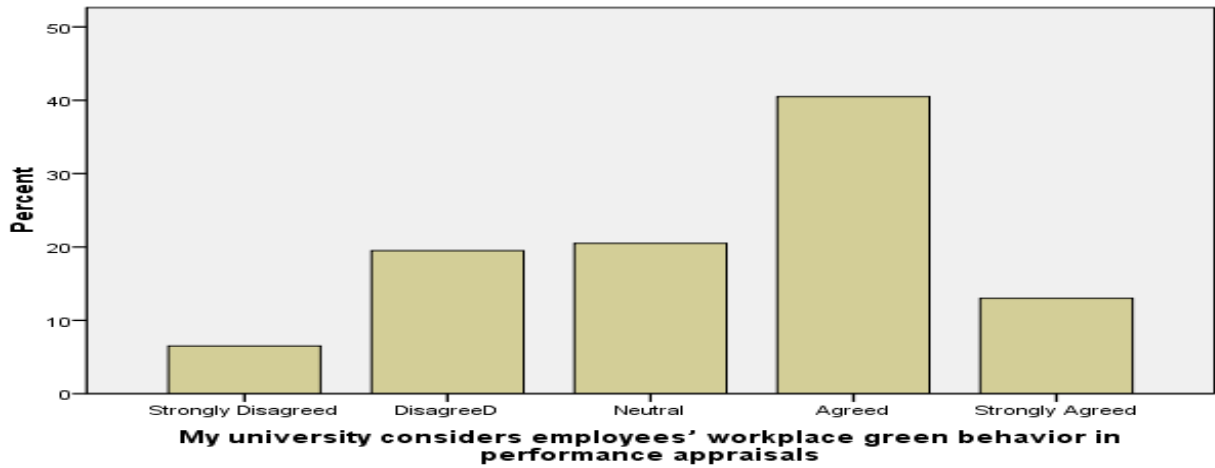
Above table represents the responses from respondents from the statement “*My university provides employees with green training to develop employees' knowledge and skills required for green management*”. As per the table out of 200 respondents, 1 respondent strongly disagreed, 14 disagreed, 13 remains in neutral position while 58 respondents agreed and 114 respondents strongly agreed with the statement.

Table: Question 4

My university considers employees' workplace green behavior in performance appraisals

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagreed	13	4.0	6.5	6.5
	Disagreed	39	12.1	19.5	26.0
	Neutral	41	12.8	20.5	46.5
	Agreed	81	25.2	40.5	87.0
	Strongly Agreed	26	8.1	13.0	100.0
	Total	200	62.3	100.0	
Missing	System	121	37.7		
Total		321	100.0		

My university considers employees' workplace green behavior in performance appraisals



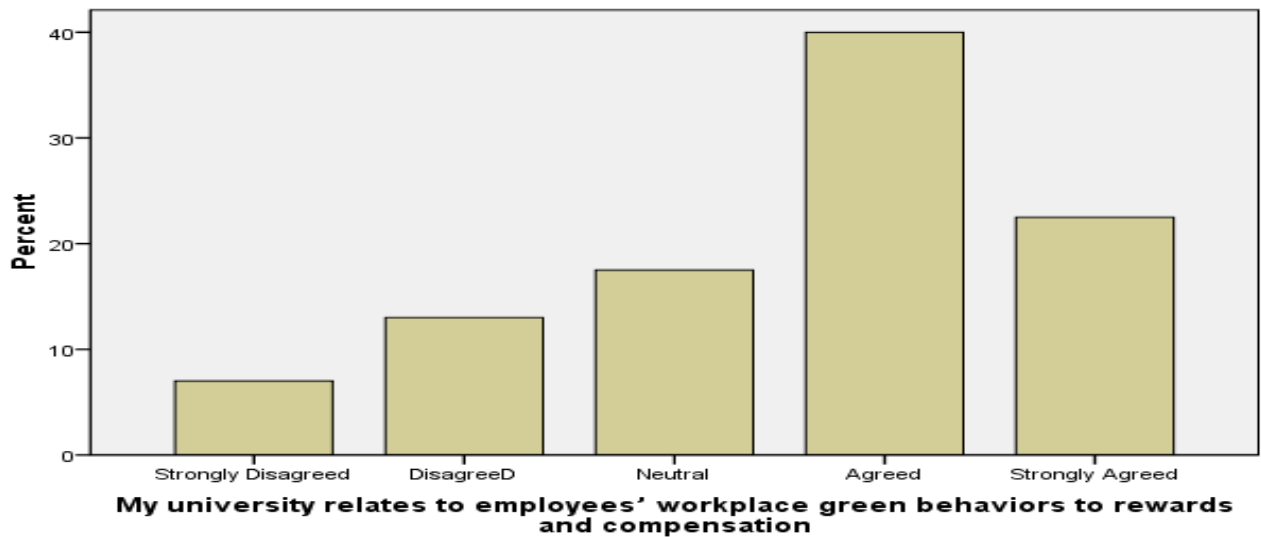
Above table represents the responses from respondents from the statement “*My University considers employees' workplace green behavior in performance appraisals*”. As per the table out of 200 respondents, 13 respondents strongly disagreed, 39 disagreed, 41 remains in neutral position while 81 respondents agreed and 26 respondents strongly agreed with the statement.

Table: Question 5

My university relates to employees' workplace green behaviors to rewards and compensation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagreed	14	4.4	7.0	7.0
	Disagreed	26	8.1	13.0	20.0
	Neutral	35	10.9	17.5	37.5
	Agreed	80	24.9	40.0	77.5
	Strongly Agreed	45	14.0	22.5	100.0
	Total	200	62.3	100.0	
Missing	System	121	37.7		
Total		321	100.0		

My university relates to employees' workplace green behaviors to rewards and compensation



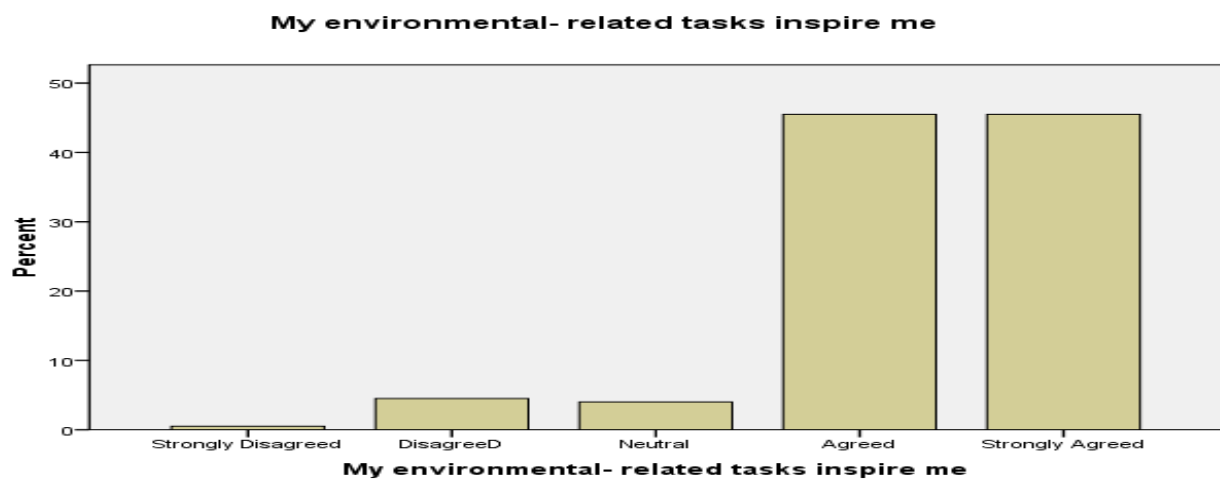
Above table represents the responses from respondents from the statement “*My University relates to employees' workplace green behaviors to rewards and compensation*”. As per the table out of 200 respondents, 14 respondents strongly disagreed, 26 disagreed, 35 remains in

neutral position while 80 respondents agreed and 45 respondents strongly agreed with the statement.

4.1.3 Green Work Engagement

Table: Question 6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagreed	1	.3	.5	.5
	Disagreed	9	2.8	4.5	5.0
	Neutral	8	2.5	4.0	9.0
	Agreed	91	28.3	45.5	54.5
	Strongly Agreed	91	28.3	45.5	100.0
	Total	200	62.3	100.0	
Missing	System	121	37.7		
Total		321	100.0		



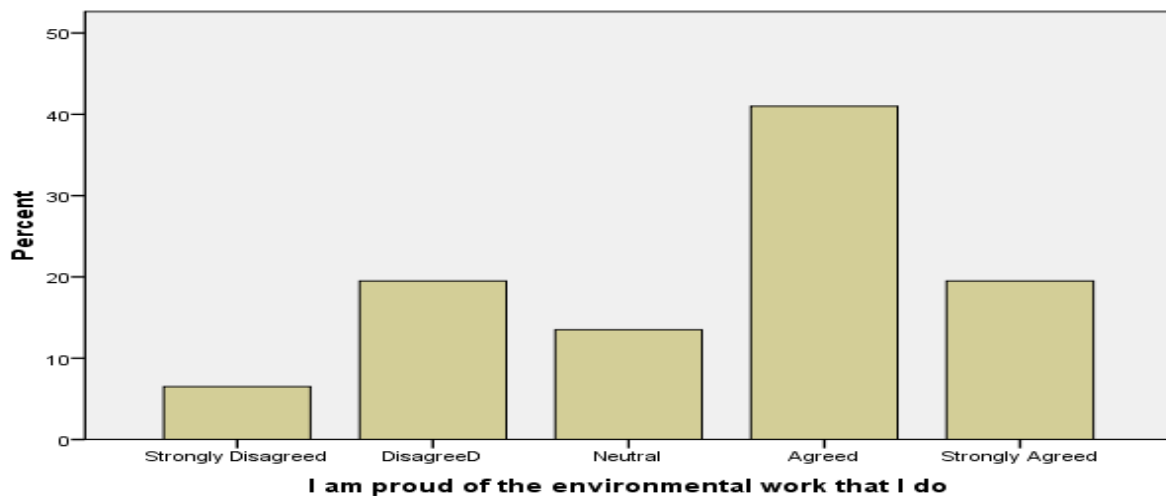
Above table represents the responses from respondents from the statement “*My environmental-related tasks inspire me*”. As per the table out of 200 respondents, 01 respondent strongly disagreed, 9 disagreed, 8 remains in neutral position while 91 respondents agreed and 91 respondents strongly agreed with the statement.

Table: Question 7

I am proud of the environmental work that I do

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagreed	13	4.0	6.5	6.5
	Disagreed	39	12.1	19.5	26.0
	Neutral	27	8.4	13.5	39.5
	Agreed	82	25.5	41.0	80.5
	Strongly Agreed	39	12.1	19.5	100.0
	Total	200	62.3	100.0	
Missing	System	121	37.7		
Total		321	100.0		

I am proud of the environmental work that I do



Above table represents the responses from respondents from the statement “*I am proud of the environmental work that I do*”. As per the table out of 200 respondents, 13 respondents strongly disagreed, 39 disagreed, 27 remains in neutral position while 82 respondents agreed and 39 respondents strongly agreed with the statement.

Table: Question 9

I feel happy when I am working intensely on environmental tasks

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagreed	26	8.1	13.0	13.0
	Disagreed	39	12.1	19.5	32.5
	Neutral	28	8.7	14.0	46.5
	Agreed	81	25.2	40.5	87.0
	Strongly Agreed	26	8.1	13.0	100.0
	Total	200	62.3	100.0	
Missing	System	121	37.7		
Total		321	100.0		

I feel happy when I am working intensely on environmental tasks



Above table represents the responses from respondents from the statement “*I feel happy when I am working intensely on environmental tasks*”. As per the table out of 200 respondents, 26 respondents strongly disagreed, 39 disagreed, 28 remains in neutral position while 81 respondents agreed and 26 respondents strongly agreed with the statement.

4.1.3 Green Outcomes

Table: Question 10

I fulfill the responsibilities specified in my job description in environmentally Friendly ways

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagreed	13	4.0	6.5	6.5
	Disagreed	23	7.2	11.5	18.0
	Neutral	14	4.4	7.0	25.0
	Agreed	72	22.4	36.0	61.0
	Strongly Agreed	78	24.3	39.0	100.0
Total		200	62.3	100.0	
Missing	System	121	37.7		
Total		321	100.0		

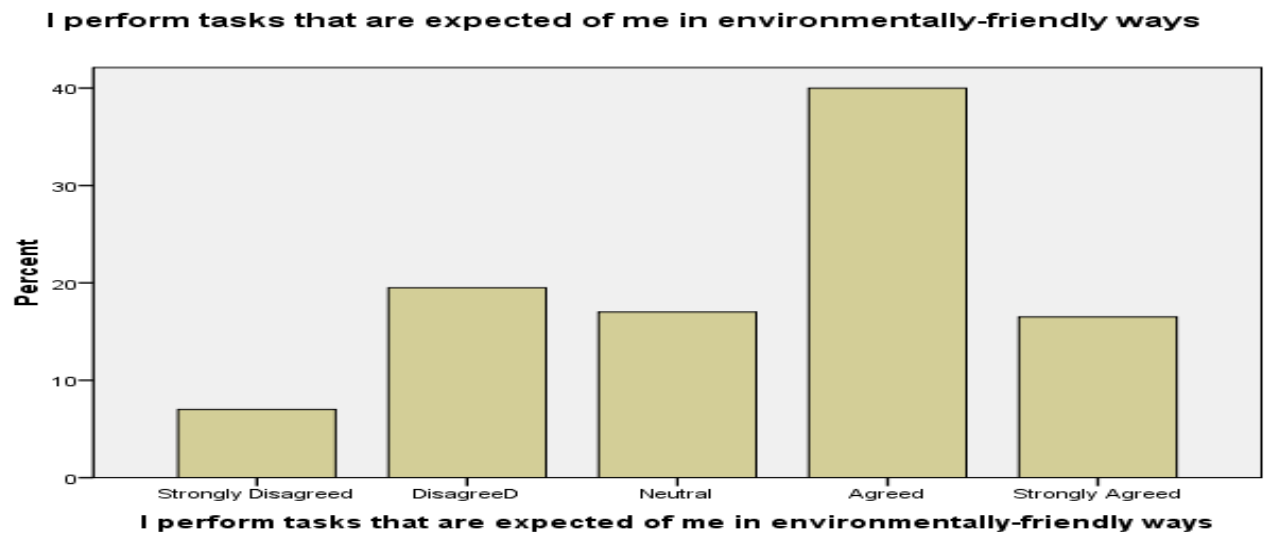
I fulfill the responsibilities specified in my job description in environmentally Friendly ways



Above table represents the responses from respondents from the statement “*I fulfill the responsibilities specified in my job description in environmentally Friendly ways*”. As per the table out of 200 respondents, 13 respondents strongly disagreed, 23 disagreed, 14 remains in neutral position while 72 respondents agreed and 78 respondents strongly agreed with the statement.

Table: Question 11

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagreed	14	4.4	7.0	7.0
	Disagreed	39	12.1	19.5	26.5
	Neutral	34	10.6	17.0	43.5
	Agreed	80	24.9	40.0	83.5
	Strongly Agreed	33	10.3	16.5	100.0
	Total	200	62.3	100.0	
Missing	System	121	37.7		
Total		321	100.0		



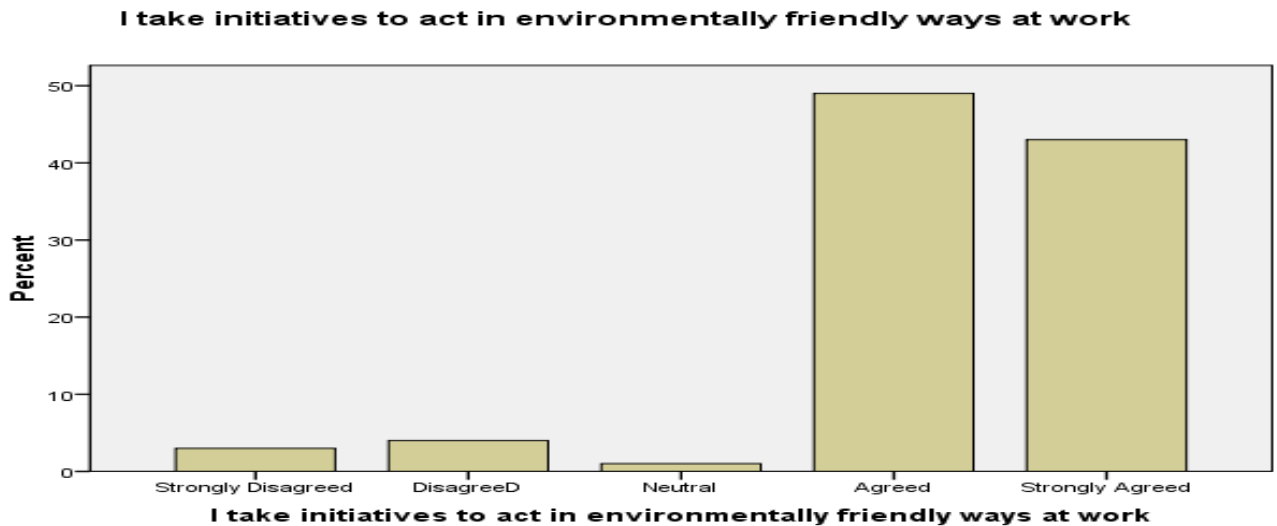
Above table represents the responses from respondents from the statement “*I perform tasks that are expected of me in environmentally-friendly ways*”. As per the table out of 200 respondents,

14 respondents strongly disagreed, 39 disagreed, 34 remains in neutral position while 80 respondents agreed and 33 respondents strongly agreed with the statement.

Table: Question 12

I take initiatives to act in environmentally friendly ways at work

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagreed	6	1.9	3.0	3.0
	Disagreed	8	2.5	4.0	7.0
	Neutral	2	.6	1.0	8.0
	Agreed	98	30.5	49.0	57.0
	Strongly Agreed	86	26.8	43.0	100.0
	Total	200	62.3	100.0	
Missing	System	121	37.7		
Total		321	100.0		



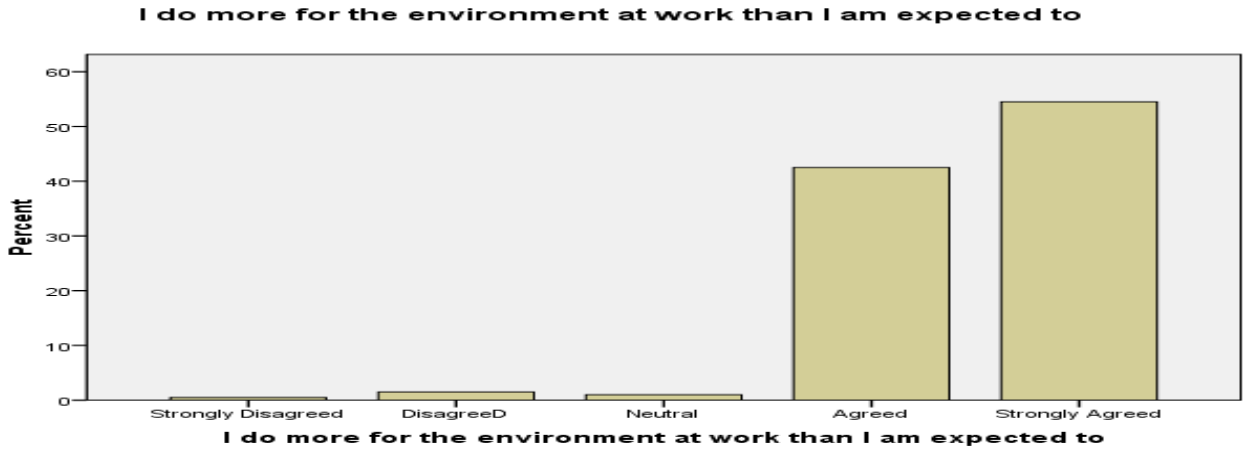
Above table represents the responses from respondents from the statement “*I take initiatives to act in environmentally friendly ways at work*”. As per the table out of 200 respondents, 6

respondents strongly disagreed, 8 disagreed, 2 remains in neutral position while 98 respondents agreed and 86 respondents strongly agreed with the statement.

Table: Question 13

I do more for the environment at work than I am expected to

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagreed	1	.3	.5	.5
	Disagreed	3	.9	1.5	2.0
	Neutral	2	.6	1.0	3.0
	Agreed	85	26.5	42.5	45.5
	Strongly Agreed	109	34.0	54.5	100.0
	Total	200	62.3	100.0	
Missing	System	121	37.7		
Total		321	100.0		

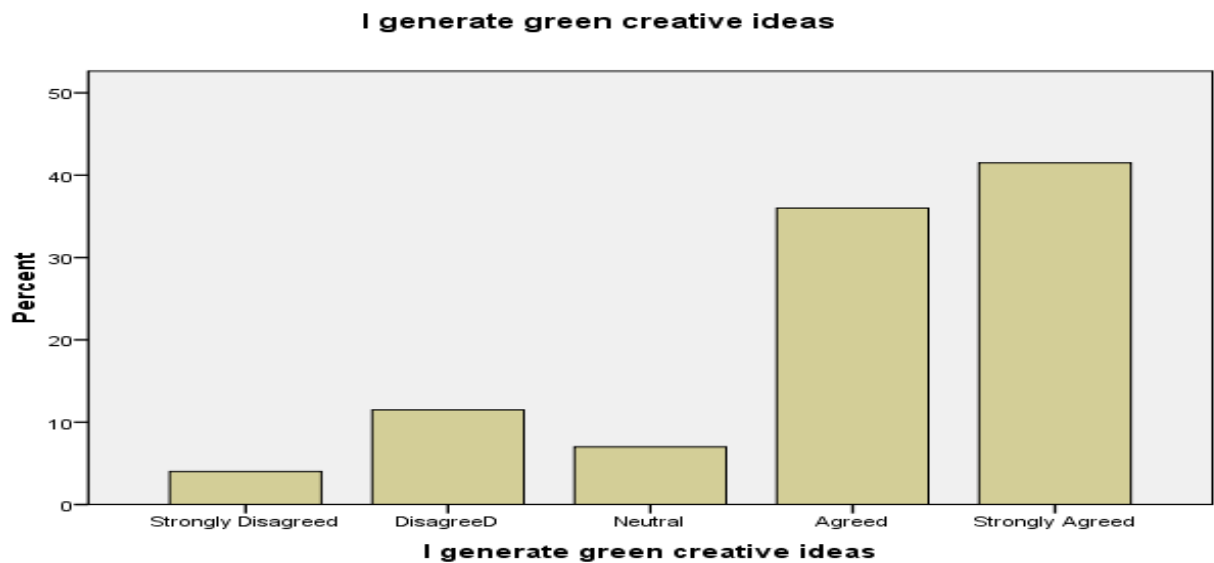


Above table represents the responses from respondents from the statement “*I do more for the environment at work than I am expected to*”. As per the table out of 200 respondents, 1

respondent strongly disagreed, 3 disagreed, 2 remains in neutral position while 85 respondents agreed and 109 respondents strongly agreed with the statement.

Table: Question 14

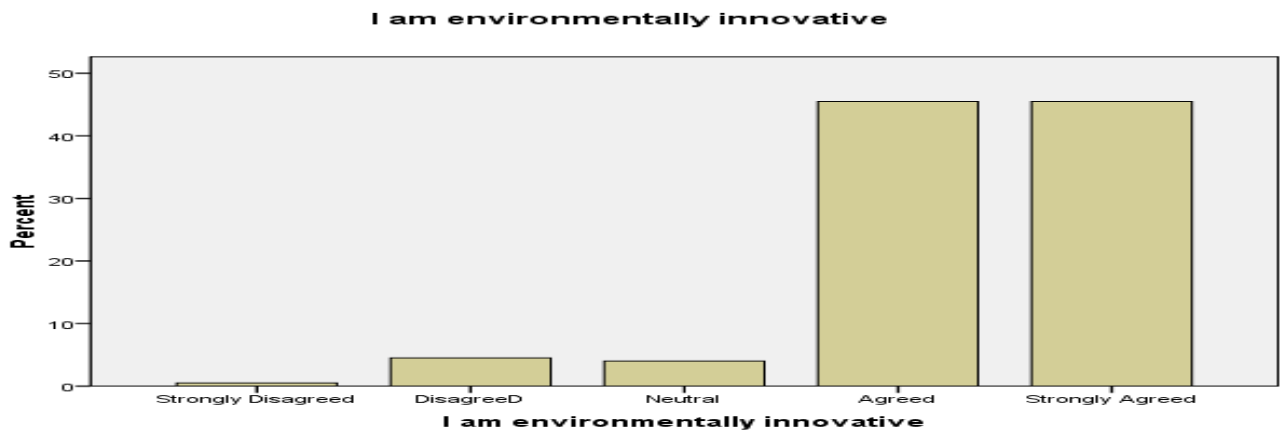
		I generate green creative ideas			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagreed	8	2.5	4.0	4.0
	Disagreed	23	7.2	11.5	15.5
	Neutral	14	4.4	7.0	22.5
	Agreed	72	22.4	36.0	58.5
	Strongly Agreed	83	25.9	41.5	100.0
	Total	200	62.3	100.0	
Missing	System	121	37.7		
Total		321	100.0		



Above table represents the responses from respondents from the statement “*I generate green creative ideas*”. As per the table out of 200 respondents, 8 respondents strongly disagreed, 23 disagreed, 14 remains in neutral position while 72 respondents agreed and 83 respondents strongly agreed with the statement.

Table: Question 15

		I am environmentally innovative			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagreed	1	.3	.5	.5
	Disagreed	9	2.8	4.5	5.0
	Neutral	8	2.5	4.0	9.0
	Agreed	91	28.3	45.5	54.5
	Strongly Agreed	91	28.3	45.5	100.0
	Total	200	62.3	100.0	
Missing	System	121	37.7		
Total		321	100.0		

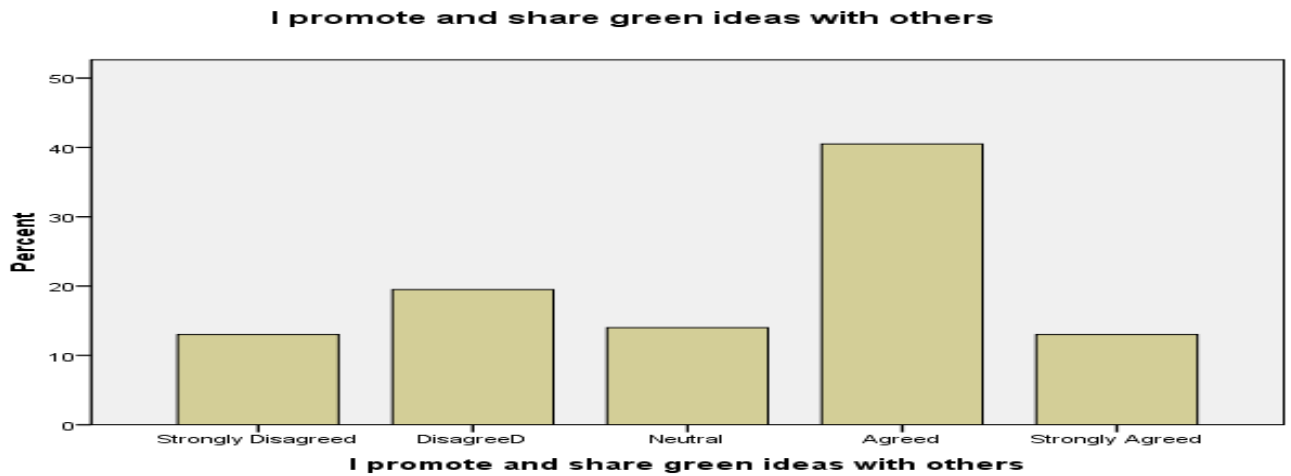


Above table represents the responses from respondents from the statement “*I am environmentally innovative*”. As per the table out of 200 respondents, 1 respondent strongly disagreed, 9

disagreed, 8 remains in neutral position while 91 respondents agreed and 91 respondents strongly agreed with the statement.

Table: Question 16

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagreed	26	8.1	13.0	13.0
	Disagreed	39	12.1	19.5	32.5
	Neutral	28	8.7	14.0	46.5
	Agreed	81	25.2	40.5	87.0
	Strongly Agreed	26	8.1	13.0	100.0
	Total	200	62.3	100.0	
Missing	System	121	37.7		
Total		321	100.0		



Above table represents the responses from respondents from the statement “*I promote and share green ideas with others*”. As per the table out of 200 respondents, 26 respondents strongly

disagreed, 39 disagreed, 28 remains in neutral position while 81 respondents agreed and 26 respondents strongly agreed with the statement.

4.2 Correlation:

		Employees Green Innovative Work Behavior
GHRM	Pearson Correlation	.933**
	Sig. (2-tailed)	.000
	N	41
Employees Green Innovative Work Behavior	Pearson Correlation	1
	Sig. (2-tailed)	
	N	41
Green work engagement	Pearson Correlation	.967**
	Sig. (2-tailed)	.000
	N	41

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

The above table is about the correlation analysis of the variables. According to the correlation table of variables, the Employees Green Innovative Work Behavior is positive with the GHRM, as well as Green work engagement. Correlation among Employees Green Innovative Work Behavior and GHRM and Green work engagement is found strongly positive.

4.3 Model Summary:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.901	.892	.889	0.04715

a. Predictors: (Constant), Employees Green Innovative Work Behavior, GHRM, Green work engagement

This table indicates the model summary of the regression analysis. The model summary of regression analysis indicates the magnitude of correlation and effects of overall picture. According to this table, the value of R is 0.901 which is near to 1 indicating that there is strong form of correlation among the variables. The value of R Square indicates that how much impact of dependent variables on the independent variables. Here the independent variables are GHRM, Green work engagement. The value of R square is 0.892 indicating that there is 89 percent impact of the independent variables on the dependent variables.

4.4 ANOVA:

ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	160.026	2	80.013	8.617	.013 ^a
	Residual	64.996	7	9.285		
	Total	225.022	9			

a. Predictors: (Constant), GHRM, Green Work Engagement

b. Dependent Variable: Employees Green Innovative Work Behavior

This table is about the ANOVA analysis of the regression model.

The ANOVA analysis is used to find out the goodness of fit test. This ANOVA table indicates that either the model used is appropriate enough or not to measure the data. Here the P value is less than the 5 percent indicating that the model we have used to analyze the data is good enough to use.

4.5 Coefficient Analysis:

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
	1					
	(Constant)	.150	.539		3.336	.012
	GHRM	.734	.016	.771	.401	.011
	Green work engagement	.381	.082	.692	.201	.001

a. Dependent Variable: Employees Green Innovative Work Behavior

This table indicates the coefficient analysis of the regression model. According to the P-value of all the independent variables, the value is less than the 5 percent indicating that all the variables are statistically significant. The value of Beta for the GHRM is positive this means that in case of Pakistan Higher Education Institutions, the GHRM has significantly positive impact on the Employees Green Innovative Work Behavior. On the other hand, the beta value for the Green Work Engagement is also found positive indicating that there is significant positive impact of Green work engagement and GHRM on Employees Green Innovative Work Behavior.

The results of the study indicates that the P-value is found significant that is less than 5 percent which implies that all the null hypothesis are rejected and alternate hypothesis are accepted. This implies that the alternate hypothesis of the study which includes **H₁**: GHRM has a significant impact on green employee in-role behavior and environmental behavior. **H₂**: GHRM applies a

positive result to the representatives' GIWB. **H₃**: GHRM has a positive impact on employees' GWE. **H₄**: GWE exerts a positive impact on employees' in-role green behaviors, extra role behavior and GIWB. **H₅**: GWE supports connections between: *a*) GHRM and green behavior in the role; *b*) GWE supports the link between GHRM and extra-role green behavior; *c*) GWE interferes with the link between GHRM and GIWB are all accepted.

Chapter 05: IMPLICATION OF RESULTS, DISCUSSIONS AND CONCLUSIONS

Conclusion:

This study is about finding the impact of Green HRM on the employees green behaviors with mediating role of mediating mechanism of green work engagement in higher education institutes of Pakistan. Monetary elements that allow the association to find real success in the corporate field and in this way allow investors to benefit. In some previous years, concerns for the global suitability for the firm's showed upward trends with the issues of the environmental concerns that were rapidly increased due to the revolution in the industry era, making the destruction of the environment. Nowadays, in the business world, the ecological image of a product has become a fundamental factor that participates procedures, technical acceptance and classifications. There is an extraordinary adaptation to the expansion of environmental contamination and waste generated in business, which has come about through the expansion of implementing strategies with a legislative and confidential area fully focused on curbing the rapid erasure of unsustainable assets and the definitive adverse consequences that would entail on cultural results. The corporate area has improved the reception of the management climate.

Increasing higher education institutes among the globe had been naturally moving towards the right practices in the last few years. This concern forces associations to remember ecological practices so that their Human Asset (HR) arrangements gain the upper hand. Green Human Resource Practices shows a vital model in the sustainability of the environment. Behavior of the employees about the environment, when they realized that it is very important and essential to have peaceful environment, it changed and they started adopting such behaviors and attributes which actually help them involve in the Green environment practices and this actually helps their

behavior engaging towards the Green Practices. Universities are most often research centers. Educational and research associations are to assume a vital role in accepting tactics as well as options as opposed in solving current environment problems.

The main objective of the study is to find out the impact of the Green HRM practices on Employee Green Behaviors by using the mediating role of the Green work engagement. The research seeks to fill the gaps featured by previous studies. This paper fills this opening by dissecting the effect of GHRM practices on the agent approach to acting with the mediating position of green work directed in HEC affiliated institutions. The scrutiny highlights the affective implementation of GHRM intervening GWE to measure the effect on employee behavior in HEC institutions situated in twin cities of Islamic Republic of Pakistan. This research ensures to be the credible source of learning and investigation for other related topics.

There are certain tasks in general GHRM studies and high-level green management training. Firstly, adds in composition of general GHRM. Secondly associates with local group data on GHRM for high-level training in Pakistan. Third, a specific responsibility is to establish GIWB in relevance with the GHRM and GWE as mediating factor in the relationship between GHRM and delegated behaviors. How to promote green employee behavior in the service industry has attracted more attention in academic research and industry practice. Previously, research was conducted in the context of Palestine. This study contributes to the data collection among universities in twin cities of Pakistan and fills the highlighted gap reported by previous researchers. Also, the findings of this study help to analyze future superintendence in other places for researchers in the context of GHRM. This review also calls for the exploration of other emerging topics of HRM and GHRM in the Pakistani context.

Discussion:

The relationship between higher education and economic development has long been emphasized. Institutions of higher education, along with economic development, are now shifting policies toward greener and more environmentally sustainable operations. Green HRM is an emerging practice in environmentally friendly organizations. Environmental work engagement mediates the relationship between GHRM and individual green outcomes. The hypothesized implication of the study is that green HRM practices positively increase environmental performance through employees' passion for the environment.

The study examined the impact of GHRM practices on green outcomes, specifically in-role, extra-role and GIWB, through the mediating effects of GWE. With data collected from the higher education sector in Pakistan. The hypothesized results showed that GHRM showed a positive relationship with the above outcome variables. GWE was found to play a significant mediating role between the investigated relationships. The study suggests future research to enrich GHRM literature by further investigating the precise mechanisms governing the relationship between GHRM and its outcomes. The research is designed to examine the impact of GHRM on the education sector and find answers to the stated research questions. He also mapped to verify the drawn hypotheses whether they were true or not. The study is empirical in nature. Data will be collected from faculty and relevant staff.

Data collection will take place through a questionnaire system. The questionnaire is adaptive irrespective to Pakistani culture. It is designed to highlight each variable complementary to the study motive. The questionnaire will be distributed in English, the formal language used in the Pakistani workplace. Some will be distributed online using a link to Google Forms (Google LLC, 1998) and printed questionnaires to an accessible university that will maintain the decorum of the

institution. The drop-off and pick up method was used to increase the response rate. The questionnaire will be accompanied by cover letters explaining the main purpose of the research and ensuring that respondents' personal information will be kept confidential. The questionnaire will be short, clear and will take 10-15 minutes to complete.

Researchers choose specific sectors, a country's economy, to conduct their study. This research contributes to the education sector. The education sector is subcategorized into the higher education sector. Higher education institutions of twin cities of Pakistan are considered as the population for this research. This research presents data from faculty and staff at universities in Pakistan located predominantly in twin cities. Five major renowned universities will be used as a sample. The sample size will be approximately 200. The sample includes all contractual employees covered by the institutions' CSR policy.

The research is empirical, therefore quantitative data is received and analyzed. The technique is random and quota sampling. With this technique in mind, a quota was established for five major university faculties and advisors. They are approached for data collection. Data collection is done using questionnaires. They will try to distribute at least fifty questionnaires to each university and try to get maximum response. Within the quota, without restrictions on the collection of data from departments and the faculty type of contract. Therefore, they approach every department with respect to probability sampling technique to get maximum response from random sample. This method will make it possible to perform a strong statistical interference on the whole group.

Implication of Results:

The finding indicates that according to the correlation table of variables, the Employees Green Innovative Work Behavior is positive with the GHRM, as well as Green work engagement. Correlation among Employees Green Innovative Work Behavior and GHRM and Green work engagement is found strongly positive.

The model summary of regression analysis indicates the magnitude of correlation and effects of overall picture. According to this table, the value of R is 0.901 which is near to 1 indicating that there is strong form of correlation among the variables. The value of R Square indicates that how much impact of dependent variables on the independent variables. Here the independent variables are GHRM, Green work engagement. The value of R square is 0.892 indicating that there is 89 percent impact of the independent variables on the dependent variables.

According to the P-value of all the independent variables, the value is less than the 5 percent indicating that all the variables are statistically significant. The value of Beta for the GHRM is positive this means that in case of Pakistan Higher Education Institutions, the GHRM has significantly positive impact on the Employees Green Innovative Work Behavior. On the other hand, the beta value for the Green Work Engagement is also found positive indicating that there is significant positive impact of Green Work Engagement and GHRM on Employees Green Innovative Work Behavior.

The results of the study indicates that the P-value is found significant that is less than 5percent which implies that all the null hypothesis are rejected and alternate hypothesis are accepted. This implies that the alternate hypothesis of the study which includes *Hypothesis 1* : GHRM has a significant impact on green employee in-role behavior and environmental behavior. *Hypothesis*

2: GHRM applies a positive result to the representatives' GIWB. **Hypothesis 3:** GHRM has a positive impact on employees' GWE. **Hypothesis 4:** GWE exerts a positive impact on employees' in-role green behaviors, extra role behavior and GIWB. **Hypothesis 5:** GWE supports connections between: **a)** GHRM and green behavior in the role; **b)** GWE supports the link between GHRM and extra-role green behavior; **c)** GWE interferes with the link between GHRM and GIWB are all accepted. The table for Hypothesis status are as follows:

Hypothesis	Status
H₁: GHRM has a significant impact on green employee in-role behavior and environmental behavior.	Accepted
H₂: GHRM applies a positive result to the representatives' GIWB.	Accepted
H₃: GHRM has a positive impact on employees' GWE.	Accepted
H₄: GWE exerts a positive impact on employees' in-role green behaviors, extra role behavior and GIWB.	Accepted
H₅: GWE supports connections between: a) GHRM and green behavior in the role; b) GWE supports the link between GHRM and extra-role green behavior; c) GWE interferes with the link between GHRM and GIWB are all accepted.	Accepted

Recommendation:

Results of this study are beneficial for management, policy makers and future researchers. In managerial point of view, the results indicate that in case of Pakistan, green environment-based management practices should be endorsed in all types of organizations which helps in getting

sustainable environment. In policy makers' point of view, results of this study indicate that Green Workplace and Eco-Friendly environment should be considered for human beings and such laws and policies should be endorsed that promotes such activities, in Pakistan. Finally, the future scholars can also get the idea to investigate further with other variables as well to find out the new impacts and results.

Limitations:

The Limitations in the study are that only 200 employees' data is taken to analyzed in this paper. Only one measure of HRM had been taken. The result of this study cannot be generalized for the whole organizations and institutes in Pakistan or any other organization in the world. Only one controlling variable Green Work Engagement has been taken under consideration in this study.

References:

- Aboramadan, M. (2022). "The effect of green HRM on employee green behaviors in higher education: the mediating mechanism of green work engagement". *International Journal of Organizational Analysis*, Vol. 30(1), pp. 7-23. doi:10.1108/IJOA-05-2020-2190
- Aboramadan, M. H. (2019). "Volunteering drivers and continuation will: the role of engagement.". *Journal of Management Development*, Vol. 35(5), 405-420.
- Arasli, H., Nergiz, A., Yesiltas, M., & Gunay, T. (2020). Human resource management practices and service provider commitment of green hotel service providers: mediating role of resilience and work engagement. *Sustainability*, 12(21), 9187.
- Agarwal, U. D.-B. (2012). "Linking LMX, innovative work behaviour and turnover intentions: the mediating role of work engagement",. *Career Development International*, Vol. 17(3), 208-230.
- Ali, F. K. (2018). "A comparative study of covariance and partial least squares based structural equation modelling in hospitality and tourism research",. *International Journal of Contemporary Hospitality Management*, Vol. 30 (1), 416-435.
- Amy H.I. Lee a, H.-Y. K.-F.-C. (2009). "A green supplier selection model for high-tech industry.". *Expert Systems with Applications*, Vol. 36, 7917–7927.
- Angel Del Brio, J. J. (2008). Human resource in advanced environmental approach- a case analysis. *International Journal of Production*, 46(21), 6029–6053.
- Anwar N, M. N. (2020). "Green Human Resource Management for organisational citizenship behaviour towards the environment and environmental performance on a university campus". *Journal of Cleaner Production*.
- Bakker, A. B. (2011). " Key questions regarding work engagement". *European Journal of Work and Organizational Psychology*, vol. 20(1).

- Benayas, J. A. (2012). "The university and sustainable development: the environmentalisation of university campuses: the case of the Autonoma De Madrid university". *Ecosistemas*. Retrieved may 5, 2020, from available at: www.aeet.org/ecosistemas/023/educativa2.htm
- Benevene, P. &. (2020). "Green human resource management: An evidence Green human resource management: based systematic literature review.". *Sustainability*, Vol. 12(15), 5974.
- Bissing-Olson, M. I. (2013). "Relationships between daily affect and pro-environmental behavior at work: the moderating role of pro-environmental attitude",. *Journal of Organizational Behavior*, Vol. 34(2), 156-175.
- Bohdanowicz, P. Z. (2011). "International Hotel chains and environmental protection: an analysis of Hilton's we care! Programme (Europe, 2006-2008)". *Journal of Sustainable Tourism*, Vol. 17(9), 797-816.
- Chaudhary, R. (2019). "Green human resource management in Indian automobile industry". *Journal of Global Responsibility*, Vol. 10(2), 161-175.
- Daily, B. F. (2007). "The mediating role of EMS teamwork as it pertains to HR factors and perceived environmental performance". *Journal of Applied Business Research*, Vol. 23(1), 95-109.
- Demerouti, E. B. (2001). "The job demands-resources model of burnout". *Journal of Applied Psychology*, Vol. 86(3), 499-512.
- Disterheft, A. F. (2012). "Environmental management systems (EMS) implementation processes and practices in european higher education institutions – top-down versus participatory approaches". *Journal of Cleaner Production*, Vol. 31, 80-90.
- Dumont, J., Shen, J., & Deng, X. (2017). Effects of Green HRM Practices on Employee Workplace Green Behavior: The Role of Psychological Green Climate and Employee Green Values. *Human Resource Management*, Vol. 56(No. 4), 613-627. doi:<https://doi.org/10.1002/hrm.21792>
- Emerson, R. M. (1976). "Social exchange theory.". *Annual Review of Sociology*, Vol. 2(1), 335–362.

Faheem Gul Gilal, Z. A. (2019). "Promoting environmental performance through green human resource management practices in higher education institutions: A moderated mediation model". *Corp Soc Resp Env Ma*, 1–12.

Fawehinmi, O. Y. (In Press). "Assessing the green behaviour of academics: The role of green human resource management and environmental knowledge.". *International Journal of Manpower*.

Finlay, J. a. (2012). "Eco-campus: applying the ecocity model to develop green university and college campuses". *International Journal of Sustainability in Higher Education*, Vol. 13 (2), 150-165.

Gilal, F. A. (2019). "Promoting environmental performance through green human resource management practices in higher education institutions: a moderated mediation model". *Corporate Social Responsibility and Environmental Management*, Vol. 6, 1579-1590.

Gilles Grolleau, N. M. (2012). "Green not (only) for profit: An empirical examination of the effect of environmental-related standards on employees' recruitment". *Resource and Energy Economics*, Vol. 34(1), 74-92.

Giménez Leal, G. C. (2003). "Using environmental management systems to increase firms' competitiveness.". *Corporate Social Responsibility and Environmental Management*, Vol. 10(1), 101-110.

Google LLC. (1998). Google. (google) Retrieved from Google Forms.

Gupta, S. R. (2015). "Green HRM: an innovative approach to environmental sustainability.". *Proceeding of the twelfth AIMS international conference on management.*, 2-5.

Hair and J.F. and Black and W.C. and Anderson, R. a. (n.d.).

Hair, J. B. (2018). "Multivariate Data Analysis". Cengage Learning EMEA, Ed. 8th.

Hair, J. R. (2011). "PLS-SEM: indeed a silver bullet",. *Journal of Marketing Theory and Practice.*, Vol. 19 (2), 139-152.

- Hair, J. S. (2012). "The use of partial least squares structural equation modeling in strategic management research: a review of past practices and recommendations for future applications",. *Long Range Planning*, Vol. 45 (5/6), 320-340.
- Hanan S, A., & Christopher M, D. (2021). Systematic review of innovative work behavior concepts and contributions. *Management Review Quarterly* .
- Hart, S. (1997). Beyond greening. strategies for a sustainable world *Harvard Business Review*, Vol. 75(1), 66-76.
- Hegde, S. U. (2007). "Environmental training and cleaner production in Indian industry—A micro-level study". *Resources, Conservation and Recycling*, Vol. 50, 427–441.
- Hobfoll, S. (2001). "The influence of culture, community, and the nested-self in the stress process: advancing conservation of resources theory". *Applied Psychology*, Vol. 50(3), 337-421.
- Huang, T.-C. (2001). "The Relation of Training Practices and Organizational Performance in Small and Medium Size Enterprises". *Education and Training*, Vol. 43(8/9), 437-444.
- Jabbour Chiappetta, C. J. (2012). "Environmental management and operational performance in automotive companies in Brazil: The role of human resource management and lean manufacturing". *Journal of Cleaner Production*.
- Jabbour CJC, S. F. (2008). "The central role of human resource management in the search for sustainable organizations". *Int J Hum Resour Manag*, Vol. 19(12), 2133-2154.
- Jackson, S. E. (2010). "The greening of strategic HRM scholarship. *Organization Management Journal*, Vol. 7(4), 278–290.
- Jacob, J. C. (2012). "A Study of Green HR Practices and Its Effective Implementation in the Organization: A Review". *International Journal of Business and Management*, Vol. 7(21).
- Jasmin Godemann, J. B. (2014). "Higher education and sustainable development: Exploring possibilities for organisational change". *Accounting, Auditing & Accountability Journal*, Vol. 27(2), 218-233.

Jie He, A. M. (2021). "Being sustainable: The three-way interactive effects of CSR, green human resource management, and responsible leadership on employee green behavior and task performance". *Corp Soc Responsib Environ Manag*, Vol. 28, 1043–1054.

Karatepe, O. a. (2016). "The mediating role of work engagement in the relationship between high-performance work practices and job outcomes of employees in Nigeria.". *International Journal of Contemporary Hospitality Management*, Vol. 28(10), 2350-2371.

Kim, K. K. (2020). "An integrative literature review of employee engagement and innovative behavior: Revisiting the JD-R model.". *Human Resource Management Review*, Vol. 30(2), 100704.

Kim, Y. J. (2019). "The effect of green human resource management on hotel employees' eco-friendly behavior and environmental performance.". *International Journal of Hospitality Management*, Vol. 76, 83-93.

Leon-Fernandez, Y. a.-V. (2015). "Environmental management and sustainability in higher education: the case of Spanish universities". *International Journal of Sustainability in Higher Education*, Vol. 16 (4), 440-455.

Lin, B. J. (2001). "Environmental practices and assessment: a process perspective". *Industrial Management & Data Systems*, Vol. 101(2), 71-80.

Mahlagha Darvishmotevali a, L. A. (2022). "Green HRM, environmental awareness and green behaviors: The moderating role of servant leadership.". *Tourism Management*.

McCunn, L. J., & Gifford, R. (n.d.). [hkhsid.jojojoj](https://www.researchgate.net/publication/353111111).

Mohammed Aboramadan, B. A. (2020). "Human resources management practices and organizational commitment in higher education: The mediating role of work engagement". *International Journal of Educational Management*, Vol. 34(1), 154-174.

Mulder, G. M. (2012). "Development of a measurement instrument for innovative work behaviour as a dynamic and context-bound construct". *Human Resource Development International*, Vol. 15(1), 43-59.

Muster V, S. U. (2011). "Green work-life balance: a new perspective for green HRM.". *German J Human Resour Manag*, Vol. 25(2), 140-156.

Norton, T. P. (2015). "Employee green behavior a theoretical framework, multilevel review and future research agenda". *Organization and Environment*, Vol.28(1), 103-125.

O'Donohue, W. &. (2016). "The moderating effect of 'green' HRM on the association between proactive environmental management and financial performance in small firms.". *The International Journal of Human Resource Management*", Vol. 27(2), 239-261.

Ones, D. S., & Dilchert, S. (2015). *Environmental Sustainability at Work: A Call to Action*. Cambridge University Press:, Vol. 5(4), 444-466.

Paill'è, P. &.-M. (2019). "Organisational support is not always enough to encourage employee environmental performance. The moderating role of exchange ideology.". *Journal of Cleaner Production*, Vol. 220, 1061-1070.

Panda, D. K. (2021). "The green identity and green strategy: an interplay. *Technology Analysis & Strategic Management*. doi:<https://doi.org/10.1080/09537325.2021.2009796>

Pham, N. T. (2019). "Green human resource management: A comprehensive review and future research agenda.". *International Journal of Manpower*, Vol. 41(7), 845–878.

Pham, N. T. (2019). "Greening the hospitality industry: How do green human resource management practices influence organizational citizenship behavior in hotels? A mixed-methods study.". *Tourism Management*, Vol. 72, 386-399.

Pham, N. T. (2020). "The role of green human resource management in driving hotel's environmental performance: Interaction and mediation analysis.". *International Journal of Hospitality Management*, Vol. 88, 102-392.

Podsakoff, P. M. (2003). "Common method biases in behavioral research: a critical review of the literature and recommended remedies",. *Journal of Applied Psychology*., Vol. 88 (5), 879-903.

Rademaker, M. S. (2019). "Measurement error correlation within blocks of indicators in consistent partial least squares: issues and remedies",. *Internet Research*.

- Rich, B. L. (2010). "Job engagement: antecedents and effects on job performance". *Academy of Management Journal*, Vol. 53(3), 617-637.
- Rigdon, E. (2012). "Rethinking partial least squares path modeling: in praise of simple methods",. *Long Range Planning*, Vol. 45 (5/6), 341-358.
- Ringle, C. S. (2018). "Partial least squares structural equation modeling in HRM research",. *The International Journal of Human Resource Management*, Vol. 31 (12), 1-27.
- Schaufeli, W. a. (2004). "Job demands, job resources, and their relationship with burnout and engagement: a multi-sample study". *Journal of Organizational Behavior*, Vol. 25(3), 293-315.
- Schaufeli, W. B. (2006). "The measurement of work engagement with a short questionnaire: a cross-national study",. *Educational and Psychological Measurement*, Vol. 66(4), 701-716.
- Schaufeli, W. S.-R. (2002). "The measurement of engagement and burnout: a two sample confirmatory factor analytic approach". *Journal of Happiness Studies*, Vol. 3(1), 71-92.
- Schuberth, F. H. (2018). "Partial least squares path modeling using ordinal categorical indicators"., *Quality and Quantity*, Vol. 52 (1), 9-35.
- Scott, S. a. (1994). "Determinants of innovative behavior: a path model of individual innovation in the workplace",. *Academy of Management Journal*, *Academy of Management*, Vol. 37 (3), 580-607.
- Song, W. Y. (2020). "Effects of green human resource management and managerial green environmental concerns on green innovation". *European Journal of InnovationManagement*.
- Sulea, C. V. (2012). "Work engagement as mediator between job characteristics and positive and negative extra-role behaviors". *Career Development International*, Vol. 17(3), 188-207.
- Tairu, Z. O. (2018). "Green human resource management—delivering high-performance human resource systems at Divine Word University Papua New Guinea In W. Leal Filho (Ed.)". *Handbook of sustainability science and research*, 489-511.
- Wenjuan Gao 1, X. D. (2019). "An Empirical Study of the Role of Higher Education in Building a Green Economy". *sustainability*, Vol. 11(6823).
- Yong, J. Y. (2019). "Green human resource management". *Benchmark*, Vol. 27(1), 2005–2027.

Yong, J. Y. (2019(b)). "Nexus between green intellectual capital and green human resource management". *Journal of Cleaner production*, Vol. 215, 364-374.

youmatter. (n.d.). Green Human Resource Management. Retrieved from youmatter: [https://youmatter.world/en/definition/green-human-resources-management-meaning-definition/#:~:text=Green%20Human%20Resources%20Management%20\(GHRM,efficient%2C%20and%20socially](https://youmatter.world/en/definition/green-human-resources-management-meaning-definition/#:~:text=Green%20Human%20Resources%20Management%20(GHRM,efficient%2C%20and%20socially)

Yusoff, Y. M. (2020). "Linking green human resource management practices to environmental performance in hotel industry.". *Global Business Review*, Vol. 21(3), 663-680.

Zhang, Y. L. (2019). "How green human resource management can promote green employee behavior in China: A technology acceptance model perspective". *Sustainability*, Vol. 11, 1-19.

Harvey, G., Williams, K., & Probert, J. (2013). Greening the airline pilot: HRM and the green performance of airlines in the UK. *International Journal of Human Resource Management*, 24(1), 152–166.

Paillé, P., Chen, Y., Boiral, O., & Jin, J. F. (2014). The impact of human resource management on environmental performance: An employee-level study. *Journal of Business Ethics*, 121(3), 451–466.

Wee, Y. S., & Quazi, H. A. (2005). Development and validation of critical factors of environmental management. *Industrial Management & Data Systems*, 105(1), 96–114.

Yang, M. G., Hong, P., & Modi, S. B. (2011). Impact of lean manufacturing and environmental management on business performance: An empirical study of manufacturing firms. *International Journal of Production Economics*, 129(2), 251–261.

Salem, M. A., Hasnan, N., & Osman, N. H. (2012). Environmental issues and corporate performance: A critical review. *Journal of Environment and Earth Science*, 2(10), 112–122.

Daily, B. F., Bishop, J. W., & Govindarajulu, N. (2009). A conceptual model for organizational citizenship behavior directed toward the environment. *Business & Society*, 48(2), 243–256.

Ones, D. S., & Dilchert, S. (2012). Employee green behaviors. In S. E. Jackson, D.S. Ones, & S. Dilchert (Eds.), *Managing human resources for environmental sustainability* (pp. 85–116). San Francisco, CA: Jossey-Bass.

Ramus, C. A., & Steger, U. (2000). The roles of supervisory support behavior and environmental policy in employee “eco-initiatives” at leading-edge European companies. *Academy of Management Journal*, 43(4), 605–626.

Cramer, J.M. and Roes, B., Total employee involvement: measures for success. *Total Qual. Environ. Manage.*, 1993, 3, 39–52.

Schaufeli, W.B., Salanova, M., González-Romá, V. and Bakker, A.B. (2002), “The measurement of engagement and burnout: a two sample confirmatory factor analytic approach”, *Journal of Happiness Studies*, Vol. 3 No. 1, pp. 71-92.

Kim, W., Kolb, J.A. and Kim, T. (2013), “The relationship between work engagement and performance: a review of empirical literature and a proposed research agenda”, *Human Resource Development Review*, Vol. 12 No. 3, pp. 248-276.

Ababneh, O. M. A. (2021). How do green HRM practices affect employees’ green behaviors? The role of employee engagement and personality attributes. *Journal of Environmental Planning and Management*, 1-23. <https://doi.org/10.1080/09640568.2020.1814708>

Aboramadan, M. (2020). The effect of green HRM on employee green behaviors in higher education: the mediating mechanism of green work engagement. *International Journal of Organizational Analysis*, ahead-of-print (ahead-of-print). <https://doi.org/10.1108/ijoa-05-2020-2190>

Hobfoll, S. E. (2001). The Influence of Culture, Community, and the Nested-Self in the Stress Process: Advancing Conservation of Resources Theory. *Applied Psychology*, 50(3), 337-421. <https://doi.org/10.1111/1464-0597.00062>

Jabbar, M. H., & Abid, M. (2015). A study of green HR practices and its impact on environmental performance: A review.

Rani, S., & Mishra, K. (2014). Green HRM: Practices and strategic implementation in the organizations. *International Journal on Recent Innovation Trends in Computing Communication*, 2(11), 3633-3639. <https://doi.org/10.17762/ijritcc.v2i11.3525>.

Renwick, D., Redman, T., & Maguire, S. (2013). Green Human Resource Management: A Review and Research Agenda. *International Journal of Management Reviews*, 15(1), 1-14. <https://doi.org/10.1111/j.1468-2370.2011.00328.x>

Bakker Arnold, B., & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International*, 13(3), 209-223. <https://doi.org/10.1108/13620430810870476>

Arasli, H., Nergiz, A., Yesiltas, M., & Gunay, T. (2020). Human Resource Management Practices and Service Provider Commitment of Green Hotel Service Providers: Mediating Role of Resilience and Work Engagement. 12(21), 9187. <https://doi.org/10.3390/su12219187>

Ari, E., Karatepe, O. M., Rezapouraghdam, H., & Avci, T. J. S. (2020). A Conceptual Model for Green Human Resource Management: Indicators, Differential Pathways, and Multiple Pro-Environmental Outcomes. 12(17), 7089. <https://doi.org/10.3390/su12177089>

Cantor, D. E., Morrow, P. C., & Montabon, F. (2012). Engagement in Environmental Behaviors Among Supply Chain Management Employees: An Organizational Support Theoretical Perspective. *Journal of Supply Chain Management*, 48(3), 33-51. <https://doi.org/10.1111/j.1745-493X.2011.03257.x>

Welmilla, I., & Ranasinghe, V. (2020). Green Employee Engagement. In *Contemporary Developments in Human Resource Management* (pp. 77-86). Sri Lanka: Department of Human Resource Management, University of Kelaniya.

Casey, D., & Sieber, S. (2016). Employees, sustainability and motivation: Increasing employee engagement by addressing sustainability and corporate social responsibility. *Research in Hospitality Management*, 6(1), 69-76. <https://doi.org/10.2989/RHM.2016.6.1.9.1297>

Chase, R.B., Aquilano, N.J. and Jacobs, F. R., *Production and Operations Management*, 8th ed., 1998 (Irwin: Homewood, IL).

Kitazawa, S. and Sarkis, J., The relationship between ISO 14001 and continuous source reduction programs. *Int. J. Oper. Prod. Manage.*, 2000, 20, 225–248.

Klassen, R.D. and McLaughlin, C.P., TQM and environmental excellence in manufacturing. *Ind. Manage. Data Systems*, 1993, 93, 14–22.

Cramer, J.M. and Roes, B., Total employee involvement: measures for success. *Total Qual. Environ. Manage.*, 1993, 3, 39–52.

Hart, S.L., A natural resource-based view of the firm. *Acad. Manage. Rev.*, 1995, 20, 986–1014.

Ramus, C.A., Employee empowerment at GE Plastics: An example of a successful environmental change process. *Corp. Environ. Strategy*, 1997, 4, 38–47.

Porter, M.E. (1985), *Competitive Advantage: Creating and Sustaining Superior Performance*, Free Press, Boston.

Gouldner, A. (1960), “The norm of reciprocity: a preliminary statement”, *American Sociological Review*, Vol. 25 No. 2, pp. 161-178.

Organ, D.W. (1988), *Organizational Citizenship Behaviour*, Lexington Books, Lexington, MA.

Moscardo, G., Lamberton, G., Wells, G., Fallon, W., Lawn, P., Rowe, A. and Clifton, D. (2013), *Sustainability in Australian Business: Principles and Practice*, Wiley-Blackwell, Milton Qld.

Du, S., Bhattacharya, C.B. and Sen, S. (2011), “Corporate social responsibility and competitive advantage: overcoming the trust barrier”, *Management Science*, Vol. 57 No. 9, pp. 1528-1545.

Van Marrewijk, M. (2003), “Concepts and definitions of CSR and corporate sustainability: between agency and communion”, *Journal of Business Ethics*, Vol. 44 No. 2-3, pp. 95-105.

Nejati, M., Rabiei, S. and Jabbour, C.J.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*, Vol. 168, pp. 163-172.

Daily, B.F., Bishop, J.W. and Govindarajulu, N. (2009), “A conceptual model for organizational citizenship behavior directed toward the environment”, *Business and Society*, Vol. 48 No. 2, pp. 243-256.

Daily, B.F., Bishop, J.W. and Massoud, J.A. (2012), "The role of training and empowerment in environmental performance: a study of the Mexican maquiladora industry", *International Journal of Operations and Production Management*, Vol. 32 No. 5, pp. 631-647.

Daily, B.F. and Huang, S.-c. (2001), "Achieving sustainability through attention to human resource factors in environmental management", *International Journal of Operations and Production Management*, Vol. 21 No. 12, pp. 1539-1552.

Renwick, D.W., Redman, T. and Maguire, S. (2013), "Green human resource management: a review and research agenda", *International Journal of Management Reviews*, Vol. 15 No. 1, pp. 1-14.

Becker, B.E., Huselid, M.A., Becker, B. and Huselid, M.A. (1998), "High performance work systems and firm performance: a synthesis of research and managerial implications", in Ferris, M.R.G.R. (Ed), *Research in Personnel and Human Resource Management*, JAI Press, Greenwich, CT, pp. 53-101.

Dumont, J., Shen, J. and Deng, X. (2017), "Effects of green HRM practices on employee workplace green behavior: the role of psychological green climate and employee green values", *Human Resource Management*, Vol. 56 No. 4, pp. 613-627.

Nejati, M., Rabiei, S. and Jabbour, C.J.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*, Vol. 168, pp. 163-172.

O'Donohue, W. and Torugsa, N. (2016), "The moderating effect of 'green' HRM on the association between proactive environmental management and financial performance in small firms", *The International Journal of Human Resource Management*, Vol. 27 No. 2, pp. 239-261.

Pham, N.T., Tuckova, Z. and Jabbour, C.J.C. (2019), "Greening the hospitality industry: how do green human resource management practices influence organizational citizenship behavior in hotels? A mixed-methods study", *Tourism Management*, Vol. 72, pp. 386-399.

Renwick, D.W., Jabbour, C.J.C., Muller-Camen, M., Redman, T. and Wilkinson, A. (2016), "Contemporary Developments in Green (Environmental) HRM Scholarship", *The International*

Journal of Human Resource Management, Vol. 27 No. 2, pp. 114-128. Renwick, D.W., Redman, T. and Maguire, S. (2013), "Green human resource management

Yu, W., Chavez, R., Feng, M., Wong, C.Y. and Fynes, B. (2020), "Green human resource management and environmental cooperation: an ability-motivation-opportunity and contingency perspective", International Journal of Production Economics, Vol. 219, pp. 224-235.

Ren, S., Tang, G. and Jackson, S.E. (2018), "Green human resource management research in emergence: a review and future directions", Asia Pacific Journal of Management, Vol. 35 No. 3, pp. 769-803.

Suharti L, Sugiarto A(2020) Aqualitative study OF green HRM practices and their benefits in the organization: an Indonesian company experience. Bus: Theory Pract 21(1):200–211.

Shafaei A, Nejati M, Yusoff YM (2020) Green human resource management. International Journal of Manpower © Emerald Publishing Limited 0143–7720

Nagarajan SK (2020) Employee awareness on green human resource practices. Stud Indian Place Names 40(19):544–548

Rangarajan N, Rahm D (2011) Greening human resources: a survey of city-level initiatives. Rev Publ Pers Admin 31(3):227–24

Appendix

The Effect of Green HRM on Employee Green Behaviors in Higher Education: the Mediating Mechanism of Green Work Engagement.

Dear Respondents

I am conducting this study to help us understand the effect of Green HRM on Employee Green Behaviors in Higher Education: the Mediating Mechanism of Green Work Engagement. I would be truly grateful for your kind cooperation. Your answers will be confidential and will not be disclosed. Thank you.

Masifa Zeeshan Qureshi, MBA student
Bahria University Islamabad.

Demographics	
1. Gender	<input type="radio"/> Male <input type="radio"/> Female
2. Age	<input type="radio"/> 18-20 <input type="radio"/> 20-29 <input type="radio"/> 30-39 <input type="radio"/> <40
3. Position	<input type="radio"/> Faculty <input type="radio"/> Admin <input type="radio"/> Other: _____
4. Institution	<input type="radio"/> Bahria <input type="radio"/> Ripah <input type="radio"/> NUML <input type="radio"/> IUII <input type="radio"/> Iqra Other: _____

GHRM	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. My university sets green goals for its employees					
2. My university provides employees with green training to promote green values					

3. My university provides employees with green training to develop employees' knowledge and skills required for green management					
4. My university considers employees' workplace green behavior in performance appraisals					
5. My university relates to employees' workplace green behaviors to rewards and compensation					
6. My university considers employees' workplace green behaviors in a promotion					

GWE	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. My environmental- related tasks inspire me					
2. I am proud of the environmental work that I do					
3. I am immersed in my environmental work					
4. I am enthusiastic about my environmental tasks at my job					
5. I feel happy when I am working intensely on environmental tasks					
6. With environmental tasks at my job, I feel bursting with energy					

Green Outcomes	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
In-Role Behavior					
1. I adequately complete the assigned duties in an environmentally friendly way					
2. I fulfill the responsibilities specified in my job description in environmentally-friendly ways					
3. I perform tasks that are expected of me in environmentally-friendly ways					
Extra-Role Behavior					

1. I take initiatives to act in environmentally friendly ways at work					
2. I take a chance to get actively involved in environmental protection at work					
3. I do more for the environment at work than I am expected to					
GIWB					
1. I search out new environmentally-related technologies, processes, techniques and/or product ideas					
2. I generate green creative ideas					
3. I promote and champion green ideas with others					
4. I Investigate and secure the funds needed to implement new green ideas					
5. I develop adequate plans and schedules for the implementation of new green ideas					
6. I am environmentally innovative					



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2nd Half Semester Progress Report & Thesis Approval Statement

Enrollment No.	01-321212-029
Thesis/Project Title	The effect of green HRM on employee green behaviour in higher education; the mediating mechanism of green work engagement.

Supervisor Student Meeting Record

No.	Date	Place of Meeting	Topic Discussed	Signature of Student
5	22-11-22	Business School	Questionnaire	
6	9-12-22	Business School	Analysis	
7	1-1-23	Business School	Analysis	

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