Implementing GHRM Practices in Pakistan Healthcare Sector to Enable Employee Capacity Mediating Work Pressure Effect

[1]**Hareem Rais Hussain**
[2]**Dr. Omar Ahmed Shaikh**

[2]*Assistant Professor, University of Karachi (KUBS)*

[1]*hareemzehra45@gmail.com,* [2]*Shaikh.omar.os@gmail.com*

Abstract
The purpose of this study is to explore the implementation of Green Human Resource Management (GHRM) practices in the healthcare sector of Pakistan can enhance the employee commitment, productivity and sustainability while exploring the mediate effect of work pressure. It measures that how green HR practices (green recruiting, training, rewards, appraisals system) enable the procedures and policies which can drive the organizational sustainability, commitment and productivity by integrating employee beliefs and behavior with environmental goals. Rooted in strategic HR frameworks, this study focuses on quantitative research design, data was collected from hospitals and laboratories of Karachi. Data was collected in the form of questionnaire which was based on Likert scale and containing items on GHRM practices, employee commitment, employee productivity, organizational sustainability and work-pressure. Approximately 300 respondents filled the questionnaire and the significance of the responses were examined through PLS and SPSS software. The findings indicate that GHRM practices have a significant impact on employee commitment and organizational sustainability but not statistically support employee productivity. Also, the result of GHRM practices on key outcomes and work-pressure are not statistically supported, it emphasizes that the work-pressure in the healthcare sector is high which limits the effectiveness of GHRM practices. This study contributes in the existing literature highlighting the obstacles of implementing green initiatives are a fundamental need to enhance the employee well-being and mitigate the work pressure.

Keywords: Green Human Resource Management, Employee Commitment, Employee Productivity, Organizational sustainability, Work pressure, pro-environmental behavior.

1.   Introduction

Working in today's era without polluting the environment, preserving the resources and mitigate harming the natural resources is crucial in nowadays. Continuous warnings from the scientist and environmentalist over the ecological conditions are now emerging the organizations to opt the eco-friendly strategies (Olaussen, 2018). In the emerging times, world is focusing more over the sustainability in the organization's practices, which reflects a balance in financial, environmental and social responsibilities. This transition reflects in the balance card approach, which evaluates organizational performances thorough financial and non-financial aspects against Tripple Bottom line approach (TBL) that capture environmental, social and economic dimension (Kaplan, 2009). And in this fast-growing world hospital sector consider as a resource-intensive organization which depends on large consumption of energy, generated contaminated waste and non-hazardous waste, also rely on complex supply chain and works high density of human capital to provide safety care (Chaudhary, 2020). Hospitals are considered as a second most high energy consumption edifice in the country after food sector   (Administration, 2015) . Mostly healthcare sectors need creative alternatives, experiments and many advanced technological ways to sustain the performance (Martins, et al., 2021) by incorporating sustainable goals in the HR process- known as Green Human Resource Management (GHRM) can help in achieving the goals. As the statutory bodies and viable framework such as the Paris Climate Agreement and WHO hospital standards have put in a lot of pressure on the healthcare sector, hospital staff are now obligated to assimilate the responsibility for the eco-friendly environment and implement green practices in their operations (McGain & Naylor, 2014; Eckelman & Sherman, 2016). In the healthcare industry, GHRM not merely guarantee conformity to sustainability parameters but also promotes employee capacity which encompasses knowledge, skills, performance readiness and psychological capability to productively ensure the green HRM practices in healthcare sector (Yong, Yusliza, & Fawehinmi, 2020). Building employee capacity is essential in hospital sector, whereas sustainability measures depend on clinical precisions, adherence to safety procedures, and high standard of professional responsibility.

Although Hospital sector serves to the humanity but their staff goes through under a lot of work pressure such as shortage of staff, work accordingly ISO standards, dealing with a lot of patients, technicality stuff, working overtime, working in complex environment and emergency driven complexity working- they have to go through it daily (Shanafelt, et al., 2019; Dipboye, 2018) . According to research model of JDC (Job Demand Control) and JDR (Job demand resource), excessive workload can stimulate the psychological and structural constraints that hinders to perform the daily tasks like operations, effects performance, leaning skills (Bakker & Demerouti, 2017; Karasek, Jr, 1979). Empirical studies have proven that job strains curtails employee willingness and employee capacity to adopt eco-friendly practices, regardless of the presence of green training and rewards system (Pham, Tan Tran, Pham, & Ta, 2022; Norton, Parker, Zacher, & Ashkanasy, 2015) . Thus, work pressure intervenes as a mediating effect in between GHRM practices and employee capacity, which shows how these practices can improve employee capacity in the hospital sector.

1.2.   Problem Statement

However, partial studies have explored the direct effect of GHRM practices on the employee perspective such as environmental behavior or employee outcome, and very limited scholars have studied the psychosocial factors. Past study of (Islam, Hack-Polay, Haque, Rahman, & Hossain, 2022) examined the moderating effect of psychological empowerment on the relation between GHRM practices and employee retention in the hotel industry, another study caters

the hotel industry showing the mediating effect of work engagement and resilience in the relation of GHRM practices and commitment (Arasli, Nergiz, Yesiltas, & Gunay, 2020). In the hospital sector (Correia, Shahzad, Martins, & Baheer, 2024; Qassim, 2024; Yusliza, Fawehinmi, Tanveer, & Abdullahi, 2023) proposed the influence of GHRM practices while showing the significant mediate effects of psychosocial factors.

Despite of emerging researches conducted in the global world emphasizes on the environmental sustainability, still the hospital sectors in my developing countries are still embedding to evolve GHRM practices in their operations. Although Green Human resource practices (GHRP) considers as a strategic tool benefits in enhancing ecological support and sustainability in the organizations but implementing it in the healthcare sector can be difficult because with the support of empirical past studies it is shown that hospital sector often fails to interpret GHRM initiatives into sustainable employee capacity. One of the majorly overlooked reason of it which is proven with evidence of research models that precisive work pressure and intense workload on the hospital staff act as a psychological and structural barrier in diminishing employee capacity limited staffing, high job demands, emotional stress and limited time tasks hinders staff in internalizing, implementing and understanding the green HR competencies and behaviors.

The absence of specified-context research suggested evident based managerial implications and theoretical advancements in how eco-friendly HR practices can be constructively implemented into aggressive work environment. In many developing countries scholars have studies the impact of GHRM practices on sustainability mediating the role of psychological factors but not targeting the work pressure. This research is fulfilling the research gap of showing the implementation of GHRM practices on employee capacity showing mediating effect of work pressure in hospital sector. Filling this gap is crucial for the developing evidence-based HR and imperishable policies that reinforce employee capacity without aggravating employee burnout or subvert the patient quality care.

1.3.   Research Objective

This study intends to examine the implementation of Green Human Resource Practices (GHRP) on employee capacity in hospital sector, involving the mediating effect of work pressure. It investigates how the work stress regulates both GHRM initiatives and the productivity of employees to perform the eco-friendly tasks, while also evaluating its mediating effect in between GHRM practices and employee capacity. Furthermore, this study proposes the policies for the hospital management for better implementation of GHRM practices which helps to reduce work pressure and enhances the employee productivity.

1.4.   Research Questions

This study focuses to explore:

Q1. How the implementations of GHRM practices in the hospital industry effect the employee-capacity?

Q2. How does the work pressure affect the employee ability to perform the eco-friendly activities?

Q3. Does the mediating factor- work pressure affect the relationship between GHRM practices and employee capacity?

Q4. How does hospital sector enhances the employee sustainability by balancing out GHRM activities with workload management?

1.5.   Significance of the Study

This study contributes to the underexplored literature by covering GHRM practices in healthcare context, an area which is highly obscure in spite of ecological intensity and

accelerating work pressure. By connecting it with healthcare organization, this study expands GHRM research scope beyond its traditional corporate level. Moreover, this study discusses a major aspect of mediating effect of work pressure can enhance the employee capacity of hospital staff by implementing GHRM practices, which adds value to the direct relation.

This study is being conducted in Pakistan which evolve contribution of GHRM practices in developing countries context. Overall, the study strengthens the existing literature by conducting research on environmental impact, employee capacity and work pressure using a practice oriented and domain specified manner. Furthermore, this study adds significance value in generating the policies and procedures regarding the HR practices for the management.

Conceptual Model
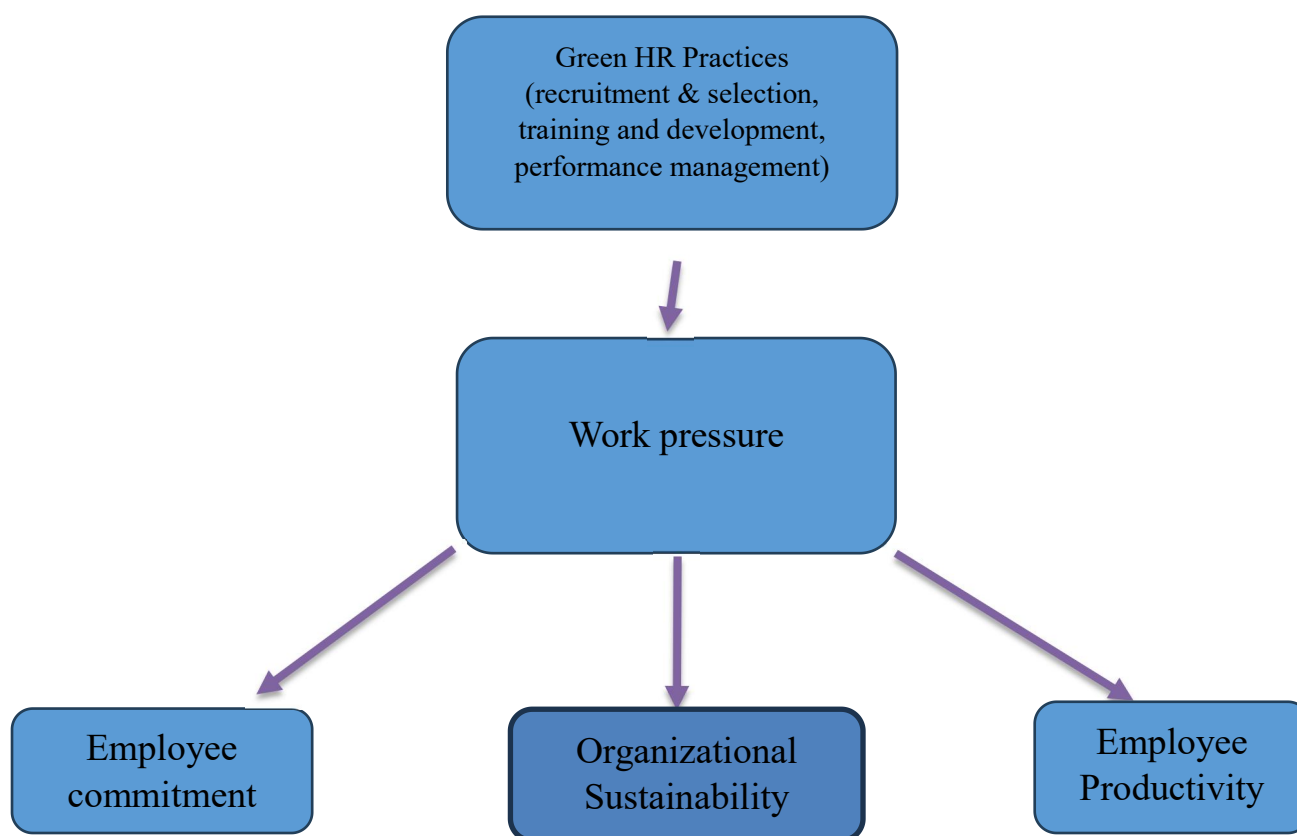
2. Literature Review

This study infuses the theoretical background of drawing attention in the perspective from human resource management, organizational psychology and environmental behavior of determining how Green Human Resource Practices (GHRM) transform workforce capacity in the hospital sector, with work pressure intervening as a mediator factor. This study theoretically underpinned by Ability-Motivation-Opportunity (AMO) theory and Job Demand-Resource (JD-R) model, these theories support that GHRM practices enhances employee capacity, their effectiveness may be strengthened or limited by pre-dominant level of work pressure in high demand hospital sector. This cross-functional perspective is prerequisite due to intricate relationship between sustainability edge, employee well-being and performance in healthcare staff.

GHRM holds key practices of green recruitment and selection, green training and development, green performance, green rewards system (Sarmad, Pirzada, & Iqbal, 2023;

Jermsittiparsert, 2021; Nawafleh, 2020; Adnan, Malik, Malik, & Malik, 2021; Iqbal, Shahzad, & Chaudhary, 2023) . In the healthcare sector, GHRM practices such as green competency building, employee empowerment, employee motivation and employee involvement can effectively improve the employee sustainable performance (Haq, 2022). Green training helps the management of hospital industry in incorporating the necessary competencies to adopt eco-friendly behavior which furthermore, enhances their capacity to accord sustainable healthcare practices (Liu, et al., 2022; Jermsittiparsert, 2021; Adnan, Malik, Malik, & Malik, 2021) . Employee capacity encompasses to the integrated skills, knowledge, abilities and attitudes that motivates the employees to carry out their responsibilities effectively which firmly contribute in achieving sustainable environmental and organizational goals (Mulievi & JUMA, 2019).

Work pressure characterized as high work demands, time bounded work conditions, and emotional strain is defined as in the healthcare organizations (O. Ugwu, N. Idike, E. Ibiam, A. Akwara, & O. Okorie, 2020). The JD-R mode defines the mediating effect of work pressure by differentiating between job demands which encompasses tensity and job resources which established motivation and wellbeing. High work pressure can increase the dissatisfaction among the peers, also it demolishes the work capacity and effect the performance due to the intensity of workplace conditions. Also work pressure limits the employee's ability to acquire new set of green skills which can enhance the work performance. When the GHRM practices are positively influencing the workplace and are designed according to work strategies than it can overcome the work pressure. Such practices foster a strong sense of purpose, psychological safety, and work compatibility among employees which enhances their potentiality to manage excessive job demands (Baykal & Bayraktar, 2022).

2.1. GHRM and Employee Commitment

Green Human Resource Management (GHRM) was first presented in 1990s and then officially published in 2000s (Lee K. , 2009) . Many scholars define green HRM as a process of implementing eco-friendly HR practices, policies and green philosophies in the organizational culture to enforce the sustainability component (Jabbar & Abid, 2015) . Empirical studies examines that how employee commitment influences the workplace culture and employee loyalty (Daily , Bishop, & Massoud, 2012) . The word "commitment" is defined as a force of attraction which targets the individual behavior towards social or nonsocial event (Meyer, Becker, & Dick, 2006) . More overly, when it adds the word "employee" with it than it is significantly defined as organizational enactment that associate with the integrity such as Environmentally consciousness (Rathore, 2025). GHRM practices included (green recruitment, green training and development, green compensation and reward system and green performance) can boost the employee's affective commitment for the organization by fostering a culture of sharing same vision with it (Rathore, 2025; Hossain & Paul, 2023).

H1: GHRMP has a significant and positive impact on employee commitment.

2.2. GHRM and Organizational Sustainability

The term sustainable development was first introduced by Brundtland Commission, in its report (Brundtland, 1987) it linked the sustainable development with environmental integration. It defined the term as "fulfilling individual's desired current needs without intergrading the future needs" and it also indulge sustainability to incorporate activity and economic growth. Other scholars define the organizational sustainability by adding the means of social, environmental and economic growth factor incorporates in the culture which strengthen the organization's decision making, policy making, implementation and operations run smoothly (van Marrewijk & Werre , 2003) . GHRM practices encompasses to convert the

human capital into green employees which aims to attain the organizational sustainability goals (for instance: encouraging employee motivation, increases brand image and business opportunity, reducing employee retention rate, sustaining employee work-life balance, shortage of employees and fabricate competitive edge) (Arulrajah & Opatha, 2016) . Also, GHRM plays a vital role in fostering environmental sustainability in the organization by re-allocating the use of resources efficiently (Ahmad S. , 2015; Nicolǎescu, Alpopi, & Zaharia, 2015). Many industries authenticate the impact of green culture on sustainability like (Mousa & Othman , 2020) study is multi-study research which showcase that green organizational culture mediates the impact on sustainable driven HRM practices including healthcare and hospital sectors

H2: GHRM practices have a significant and positive impact on organizational sustainability.

2.3. GHRM and Employee Productivity

GHRM practices foster a workplace culture for the employees while boosting their confidence and motivate them and aligning their individual goals with organizational vision (Rapo, 2024). "Productivity" is defined as an individual's doing their assigned legal task in a specific time frame and demonstrate efficiency while performing it (Chuah, Mohd, Kamaruddin, & Noh, 2021) . GHRM when combines with HR policies than it boost up the employees productivity which transform their duties in a simple manner (Tan, Abbas, Al-Sulaiti, Pilař, & Shah, 2025; Agustia, Sawarjuwono, & Dianawati, 2019; Singh, Giudice, Chierici, & Graziano, 2020) and organizational culture enrich the effectiveness, effectiveness and engagement (Ullah, Mehmood, & Ahmad, 2023; Boakye, Adu, Kyei-Frimpong, & Twumasi , 2024). In the healthcare sector green practices such as green innovation can play a vital role because it imply frequent and clear adoption of technological advancement which can ease in optimizing process and sufficient use of resources with less wastage (Noor, Tunnufus, Handrian, & Yumhi, 2023; Gazi, Al Masud, Emon, Ibrahim, & Senathirajah, 2025).

H3: GHRM practices have a significant and positive impact on employee productivity.

2.4. GHRM and Work Pressure

The implementation of GHRM practices plays a vital role in overcoming organization's work pressure by maintaining sustainable workplace culture, employee well-being and enhancing overall performance (Liu, Mei, & Guo, 2020; Albloush, Alharafsheh, Hanandeh, Albawwat, & Shareah, 2022; Shao, Peng, Ji, & Zhou, 2025) . GHRM assimilate environmental sustainability into standard human resource responsibility like green recruitment and selection, green training and development, green performance appraisals, green benefits and compensation (Ali, Islam, Chung, Zayed, & Afrin, 2020; Jayakani & Rani, 2024). Beyond achieving ecological aims, this approach also strives to develop a strategic advantage by optimizing human resource capabilities (Liu, Mei, & Guo, 2020; Yi, Yusliza, Thurasamy, & Seles, 2022) . Multiple theories such as Job Demand-Resources (JD-R) and social exchange theory display the interconnected impact of GHRM can have on work pressure (Shao, Peng, Ji, & Zhou, 2025; Zhu, Wu, & Shen, 2021). A key way in which green initiatives attenuate work pressure is by stimulating employee green behavior, which entails employee's self-initiatives, bottom-up environmental modifications (Shao, Peng, Ji, & Zhou, 2025).

H4: GHRM practices have a significant and positive impact on work pressure.

2.5. Work Pressure and Key outcomes

Organizational work pressure plays a significant influence in employee productivity, employee commitment and organizational sustainability but frequently it can pressure the individual for getting involved, whereas excessive pressure can display harmful effects (Zhaoyang, Shenyang, & Li, 2024; Zeng & Hu, 2024) . Employee commitment plays a linking role between work

pressure and key outcomes of organization (Kamule & Patil, 2024) . Researches study the psychological fact that if the employees and organization have a mutual expectation that it leads to the trust bonding and commitment, which make employees resilient to work pressure (Obeng & ATAN, 2024). A study in Jordon of hospital context shows that the negative impact of workload has influenced perceive organizational support (Saadeh & Suifan, 2020) . Organizational sustainability is intervened with employee productivity and employee commitment (Kamule & Patil, 2024) . Organization facing excessive pressure from external entities pressurizes the strategic human resource (SHR) which reduces the self-motivation and commitment among employees and also negatively influences the organizational sustainability (García-Cruz, Pasamar-Reyes, & Rincón-Roldán, 2024).

H5: Work pressure has a significant impact on employee commitment, employee productivity and organizational sustainability.

2.5. Mediating effect of work pressure

GHRM practices are considered as an essential factor to change the traditional HR practices to align with ecological aims to foster environmental reactive culture and promote healthy organizational practices (Nagamani, Joshi, Sidhardha, Kaur, & Deshmukh, 2025) . However, despite of positive influence of major initiatives reported in the literature review, the essence of these practices can be affected by a contextual and psychological factor such as work stress, resource in availability, and job demands. Work pressure acts as a linking factor between green practices and other key outcomes. Work pressure faced by the employees due to excessive amount of job demands and unhealthy practices are cultivated in the organization which influences employee's day to day tasks. Although, GHRM practices are formed to cultivate a productive and pro-environmental environmental and sustainable work-oriented environment in the organization, but high work pressure factor mediate in between which therefore reduces the motivational, psychological and cognitive factors among the employees. Therefore, organizations who seeking to maximize the advantages of GHRM initiatives must control the excessive work pressure to maintain stability and consume the employees' capabilities effectively.

H6: Work pressure mediates the relationship between Green HRM practices and key employee and organizational outcomes,

3. Research Methodology

3.1. Research Philosophy

This study focuses on the pragmatic research philosophy using the quantitative research design to analyze the parallel between GHRM practices and employee capacity and work stress in healthcare organization (Pretorius, 2024).

3.2 Research Approach

This study focuses on quantitative and deductive approach to scrutinize the relation between Green Human Resource Management (GHRM) practices, employee capacity and work pressure in the healthcare sector.

3.3 Research Design

This study adopted the quantitative and cross-sectional research design. It also focuses on explaining the relationship of how GHRM practices can mitigates the work pressure in hospital sectors and can enhances the employee capacity and organizational sustainability.

3.4 Data Collection and Measurement Technique

This study targeted the sample size of 300 respondents from hospital staff and medical laboratories. The data was collected by structured questionnaire which was distributed online among staff members of the respective targeted sample size. The variable questions were

based on five points Likert scale ranging from Strongly Disagree (1) Disagree (2) Neutral (3) Agree (4) Strongly Disagree (5). The variable items were adopted from past studies about GHRM practices, Business sustainability, employee productivity, employee commitment and work pressure. Followed collected data was tested through PLS and SPSS model to examine the direct and mediating relation. Furthermore, the validity and reliability of the conceptual framework was assessed through Cronbach's Alpha, Composite Reliability (CR), Average Variance Extracted (AVE), and discriminant validity criteria (Fornell Larcker and HTMT).

4. Results

Table 1:   *Descriptive Statistics of Study Variables*

Construct	Code	Mean	SD	Skewness	Kurtosis
Green HRM Practices	GHRM	3.812	0.641	-0.321	-0.214
Work Pressure	WP	3.276	0.702	0.198	-0.487
Employee Commitment	EC	3.954	0.588	-0.445	0.139
Organizational Sustainability	OS	3.721	0.625	-0.276	-0.362
Employee Productivity	EP	3.987	0.563	-0.392	0.084

Table 2:   *Measurement Model: Construct Reliability and Validity*

Constructs	Items	Loading	RhoA	CR	AVE
Green HRM Practices	GHRM1	0.782	0.884	0.910	0.634
	GHRM2	0.814			
	GHRM3	0.801			
	GHRM4	0.835			
	GHRM5	0.799			
	GHRM6	0.822			
Work Pressure	WP1	0.744	0.806	0.872	0.630
	WP2	0.768			
	WP3	0.812			
	WP4	0.795			
Employee Commitment	EC1	0.791	0.902	0.930	0.678
	EC2	0.823			
	EC3	0.837			
	EC4	0.858			
	EC5	0.814			
	EC6	0.826			
Organizational Sustainability	OS1	0.764	0.865	0.902	0.649
	OS2	0.801			
	OS3	0.827			
	OS4	0.783			
	OS5	0.809			
Employee Productivity	EP1	0.788	0.842	0.892	0.674
	EP2	0.833			
	EP3	0.846			
	EP4	0.821			

Table 3:	*Discriminant Validity – Fornell–Larcker Criterion*				
	GHRM	**WP**	**EC**	**OS**	**EP**
GHRM	0.797				
WP	0.432	0.794			
EC	0.511	0.458	0.823		
OS	0.476	0.439	0.567	0.806	
EP	0.498	0.421	0.593	0.552	0.821

Table 4:	*Discriminant Validity – Heterotrait–Monotrait Ratio (HTMT)*				
	GHRM	**WP**	**EC**	**OS**	**EP**
GHRM					
WP	0.611				
EC	0.674	0.628			
OS	0.652	0.601	0.712		
EP	0.663	0.589	0.741	0.698	

4.1 Measurement Analysis

The measurement model was assessed first, in line with recommended PLS-SEM procedures that emphasis evaluating indicator reliability, internal consistency, convergent validity, and discriminant validity before testing the structural relationships. (Hair et al., 2017, 2019). Basic descriptives and normality were checked. The results appear in Table 1. For all indicators of Green HRM practices, work pressure, employee commitment, organizational sustainability, and employee productivity, skewness falls roughly between -1 and +1, and kurtosis between about -1 and +3. These are well within the commonly accepted ranges of skewness between -2 to +2 and kurtosis from -7 to +7 to indicate no serious univariate non-normality (George & Mallery, 2010; Hair et al., 2010; Kline, 2011). Even though PLS-SEM does not assume multivariate normality, such values support the stability of estimated loadings and structural paths.

Table 2 presents the results of outer loadings and AVE, which can be used to assess indicator reliability as well as convergent validity. For reflective items, a loading higher than .70 is considered good (Hair et al., 2019; Ji, 2021). This means that almost 50% or more variance in an item has been explained by its latent construct. All the values are above .70 (ranging approximately between .74 to .89), thus indicating high indicator reliability for all columns of Table 2: Green HRM(GHRM1-GHRM6), Work Pressure (WP1-WP4), Employee Commitment (EC1-EC6), Organizational Sustainability (OS1-OS5), and Employee Productivity (EP1-EP4). These make them good reflectors on their respective constructs. Convergent validity was evaluated by AVE; an AVE of 0.50 or higher shows that a construct explains more than half the variance of its indicators (Fornell & Larcker, 1981; Hair et al., 2019; Cheung, 2024). As shown under the AVE column in Table 2, all constructs have an AVE larger than 0.50. Therefore, convergent validity is adequately confirmed across the measurement model.

Internal consistency reliability was examined using composite reliability (CR) and rhoA, which are preferred in PLS-SEM over Cronbach's alpha because they do not assume equal loadings and provide more accurate reliability estimates for reflective constructs. (Hair et al., 2017; Hair et al., 2020; Schuberth et al., 2020). Recommended values for CR and similar coefficients range from 0.70 to 0.95; values below 0.70 suggest insufficient reliability, whereas values above 0.95 may indicate redundancy among items.(Hair et al.,2019; Hair et a1.2022) As shown in Table 2 under the columns of CR and rhoA for Green HRM, Work Pressure, Employee Commitment, Organizational Sustainability & Employee Productivity all fall within this range of .70-.95, indicating that internal consistency reliabilities across constructs are

satisfactory to good with no evidence of over-redundant items. High loadings together with AVEs support manifesting measuring scales being reliable as well as internally coherent.

Discriminant validity was assessed by both the Fornell–Larcker criterion and Heterotrait–Monotrait ratio (HTMT), as reported in Tables 3 and 4. According to the Fornell–Larcker criterion, the square root of AVE for each construct (bold diagonal elements) should be greater than its correlations with any other construct, either in the same row or column (Fornell & Larcker, 1981). In Table 3, all five constructs (GHRM, WP, EC, OS, EP) have their AVE square roots greater than corresponding off-diagonal correlation values; i.e., each construct shares more variance with its own indicators than any other latent variable. This pattern offers support to discriminant validity based on the classical rule of Fornell–Larcker. Yet recent simulation work has shown the possibility of failures in detecting problems with discriminant validity by Fornell–Larcker and cross-loadings, hence HTMT as a more sensitive criterion recommended (Henseler et al., 2015; Sarstedt et al., 2022). Basically, HTMT is the average correlation between constructs divided by the average correlation within items of the same construct. If this value is clearly below 1.0, then the model contains two distinct constructs. The most commonly proposed thresholds are 0.85 for conceptually different constructs and 0.90 for more closely related constructs (Henseler et al., 2015; Roemer et al., 2021; Kline, 2011). All values among the five constructs reported in Table 4 are less than .85; therefore, no pairs of concepts approach a problematic level of overlap; thus, according to the 'HTMT' column, there also exists clear evidence on discriminant validity.

All indicator loadings are above 0.70, AVE is above 0.50, CR and rhoA are between 0.70 and 0.95, the Fornell–Larcker criterion is satisfied as well, and the HTMT inference results satisfy the latest recommended thresholds for reflective measurement models in PLS-SEM (Hair et al., 2017, 2019; Henseler et al., 2015). Therefore, Green HRM practices, Work Pressure, Employee Commitment, Organizational Sustainability, and Employee Productivity have been reliably and validly measured, thus making an interpretation of the ensuing structural model results with respect to measurement quality possible

Table 5:   *Path Coefficients and Hypothesis Testing (H1–H6)*

Hypothesis	Structural Path	β (Path Coefficient)	t-value	p-value	Decision
H1	Green HRM Practices → Employee Commitment	0.342	6.105	0.000	**Supported**
H2	Green HRM Practices → Organizational Sustainability	0.281	4.927	0.000	**Supported**
H3	Green HRM Practices → Employee Productivity	0.086	1.314	0.189	**Not supported**
H4	Green HRM Practices → Work Pressure	0.407	7.038	0.000	**Supported**
H5	Work Pressure → Key Outcomes (EC, OS, EP)	0.198	2.742	0.006	**Supported**
H6	Green HRM → Work Pressure → Key Outcomes (Mediation)	0.061	1.735	0.083	**Not supported**

4.2. Structural Analysis

We analyzed the structural model in SmartPLS using the bootstrapping procedure with 5000 resamples and a two-tailed significance level of 5%. Path coefficients (β), t-values, and p-values were used to test the hypotheses H1–H6, together with the R^2 values of the endogenous constructs to judge the explanatory power of the model. The results appear in Table 5.

Table 6:   *Coefficient of Determination (R^2) – Endogenous Constructs*

Endogenous Construct	Predictor(s)	R^2	Adjusted R^2
Work Pressure (WP)	Green HRM Practices	0.166	0.164
Employee Commitment (EC)	Green HRM Practices, Work Pressure	0.487	0.482
Organizational Sustainability (OS)	Green HRM Practices, Work Pressure	0.452	0.447
Employee Productivity (EP)	Green HRM Practices, Work Pressure	0.516	0.512

In terms of model explanatory power as reflected by the R^2 values, work pressure is moderately explained by Green HRM practices (R^2 = 0.166) or about 16.6% of variance attributed to Green HRM. Employee commitment is fairly well explained by both Green HRM practices and work pressure (R^2 = 0.487), as is organizational sustainability (R^2 = 0.452). The highest R^2 comes for employee productivity at 0.516, just over half the variance accounted for by Green HRM and work pressure. These fall mostly within what would be considered a "moderate" range in behavioral research, indicating that while the model has sufficient explanatory power with respect to key employee and organizational outcomes, there remains ample room left open for additional variables – attitudes, motivations, culture.

5. Discussion

H1 stated that "GHRM practices has a significant and positive relation with employee commitment" which is testified by the results as shown (β = 0.342, t = 6.105, p = 0.000). This result is supported by the existing literature which justifies the positive impact of green initiatives over employee commitment. (Amjad, Khoso, Soomro, & Khan, 2025) suggested that environmental purpose HR practices foster a culture of employee empowerment and innovation, employee identification which strengthen the employee aligning their individual goals with organizational values and emerge a sense of responsibility. The results also justify the Social Exchange Theory (SET) which states that when organization presents green initiatives like training and benefits to the employes they reciprocate it in the shape of commitment.

H2 stated that "GHRM practices has a significant and positive influence on organizational sustainability" is also supported by the results showing significancy (β = 0.281, t = 4.927, p = 0.000). This proves with the support of existing literature that HR-driven sustainability practices compliance the strategic practices such as waste reduction, enhances environmental adherence and organizational effectiveness (Hossain & Paul, 2023). Integrating green initiatives such as training and development, performance management system and rewards and benefits which fosters the environmental culture and embedded pro-ecological employee behavior. (Gazi, Al Masud, Emon, Ibrahim, & Senathirajah, 2025) study suggested that sustainability can not only be achieved by technology or policy framework but should be incorporated in employee culture. Thus, this evidence proves that GHRM practices can sustain the organizational culture in the context of healthcare sector.

H3 stated that "GHRM practices has a significant and positive impact on employee productivity" but the results show that (β = 0.086, t = 1.314, p = 0.189), which shows the H3 is

not supported. Although empirical studies support that the implementation of green initiatives can enhance employee performance and productivity but these results can interpret the findings that the implementation of GHRM practices are on the initial stages which may burdened the employees for perceiving the green initiatives as a subsidiary responsibility and not a productive practice. (Ahmad, et al., 2023) study examining the evidence that in high pressure work culture, sustainable initiatives are not capable to hold the productive enables unless the employees have adequate number of resources, empowerment and support from the management.

H4 states that "GHRM has a significant and positive impact on work pressure" the results show (β = 0.407, t = 7.038, p = 0.000) which defines that H4 is supported. With the evidence of past studies it defines that GHRM practices support to reduces work pressure such as green training, employee involvement gives a recognition to the employees which in the result built in the enthusiasm in the employees and enhances a decentralized culture in the organization (Ahmad, et al., 2023) . Similarly, recognition of green efforts motivates the employees and reduces the work pressure. Hence H4 supports the significant and positive result in the context of healthcare sector.

H5 states that "Work pressure has a significant impact on key outcomes (employee commitment, employee productivity, and organizational sustainability) the results show that (β = 0.198, t = 2.742, p = 0.006). Hence it is evidently proven through past research (Demerouti & B. Bakker, 2025) explains the work pressure hinders either as a challenge or as a burden rely upon the context. Hence this study showcases the negative impact over the key outcomes of employee and organization which justifies the hypotheses.

H6 states "Work pressure mediates the relationship between GHRM practices and key outcomes" has shown the results (β = 0.061, t = 1.735, p = 0.083). This showcases that H6 is not supported, which means GHRM practices does not overcome the work pressure despite increases a responsibility of integrating green practices, although work pressure affects employee productivity, employee commitment and organizational sustainability, although it does not explain how GHRM produces the benefits. This explain that GHRM practices might have direct impact on employee commitment and organizational sustainability through building engagement and motivation but still the work pressure remains the same (Gyensare, 2023). Although this finding hinted that managing work pressure is significant but that is not how GHRM can achieve its positive key outcomes.

5.1. Future Implication

Healthcare sector management can enhance employe commitment among the organization culture by implementing green initiatives such as in training, recruitment and performance appraisals system management can attract environmental values with the day-to-day tasks which can encompasses a sense of purpose and moral congruence which is essential in the hospital sector where work frame is value driven. Supporting H2, Healthcare sectors are mostly consuming energy in medical tools and technology, also consuming lots of time which makes the employee behavior crucial thus implementing GHRM practices can enhance sustainability. Managers should stimulate SDGs 17 goals in the operation and giving training and knowledge about it to enhance the skills. Also, managers can maintain eco-friendly procurement policies linking with sustainability outcomes which will enhance organizational sustainability in the culture rather than an additional burden over the employees.

For increasing the productivity in healthcare sector managers should efficiently infuse the green initiatives in the operations which arouses a purpose to the employees and not burdened them. Managers should design green jobs which can simplify the clinical tasks by

integrating ecological goals such as executing waste segregation system to minimize time in waste disposal in clinics. Also, managers can introduce green performance appraisals system where they can award employees on reducing waste, consuming less energy or improving turnout times without increasing work pressure. Management can also introduce digitalize system where paperless work can minimize the administration burden and free up the time for patient care. Other than green scheduling and staffing policy can be implemented which helps in shift allocation, employees can reduce fatigue and improve their productivity.

By implementing green HR initiatives managers can reduces work pressure which is inherently high in healthcare sector due to shortage of staffing, workload and emotional demands. Managers can adopt green optimize shifting process, green training and efficient task design strategies to reduce the work pressure. Green decision-making practices can be adopted in which healthcare staff in involved can reduce the workload. Furthermore, green well-being initiatives can support the flexibility among the employees without pressurize them about performance. Hence these practices can help reducing the workload in the healthcare sector. But not only reducing work pressure can only enhance the GHRM practices in the healthcare sector but also other factors such as transformational leadership, motivational campaigns, employee engagement programs should also be incorporated to effectively enhance the green practices for the progress of healthcare sectors in Pakistan.

5.2. Limitations

This study relies on many limitations firstly, the data was collected from 2 hospitals and some diagnostic laboratories of Karachi, Pakistan. Although Karachi is considered as a major healthcare center, but the geographical restriction can restrict the generalizability of the findings to other cities, public sectors and rural healthcare sector which are operating under other regulatory bodies. Secondly, this study is based on cross-sectional survey which restricts the ability of maintain the casual relation between Green Human Resource Management (GHRM), work-pressure and employee capacity. Although the mediating factor-work pressure was statistically observed among the population but longitudinal survey would be more recommended to examine the effect of GHRM practices on employee capacity-mediating the role of work pressure in hospital staff.

Other than that, the questionnaire is self-administrative which leads to common and bias responses. Employees may report their green practice and work pressure behavior under the social pressure, organizational expectation or concern about adhesion assessment especially in the hospital sector. Also, healthcare sector specifically in Karachi context-staff shortage, excessive working hours, lack of technical stuff and financial resources may enforce work pressure. These factors cannot be fully controlled and can influence the relation in the study. Mainly the context of this research is still underexplored in the many developing countries. The scarcity of least empirical studies is reflecting the direct relation of GHRM practices, work pressure and employee capacity restricts the theoretical framework and the modification of exiting measuring tools, which also limit the ability of comparison and validity of results, while underscoring the study's exploratory design and contribution to the existing literature

6. Conclusion

GHRM practices incorporates sustainable strategies including green recruitment and selection, green training and development, green performance, green rewards and benefits (Ogbeibu, Emelifeonwu, Senadjki, Gaskin, & Kaivo-oja, 2020). For instance, green training develops the relatable knowledge, skills and attitude in the employees and giving training of using efficient energy and waste reduction solutions to attain the sustainability (Khan & Muktar, 2023;

Hussain & Aman-Ullah, 2024). This highlights the skills set of influencing employee capacity which activates the purpose of gaining environmental goals. In Pakistan where the healthcare sector is in complex and critical situation such as shortage of resources and staff, sufficient medical compliances and tools, limited technology and excessive work pressure. In Pakistan healthcare sectors generates high waste production and extensive resources which leads to environmental deterioration and increases health risk for both employees and patients. (Yadate, 2025) By implementing green practices management can foster a "green culture" which can maintain an easiness for a healthier work environment and may have indirect effect on occupational stress reduction (Correia, Shahzad, Martins, & Baheer, 2024).

As in the healthcare sector- which is a job consist of emotional demanding, employees need to stay motivated and engage than GHRM practices helps them to sustain the probability of being focused in the work. When the management encompasses green practices for sustainability it develops job satisfaction among employees and it boost up their morel and capacity to improve their productivity (Li, et al., 2023). Furthermore, this study also synthesis that the managerial implication which can sustain the organizational sustainability in the healthcare sector, also it focuses that not only controlling the work pressure can emphasize the positive impact on workforce but also other psychological factors such as employee motivation practices, employee engagement, and also transformational leadership practices will also enforce a healthy workplace for the healthcare staff.

Thus, implementation of GHRM practices in healthcare sector of Pakistan are not merely an option but a fundamental urgence for incorporating sustainability, productivity and commitment. Thus, these practices foster a supportive, engaging, motivated, innovative and productive workforce which cultivates a pro-environmental culture.

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