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The impact of green HRM on employee technostress: The moderating role of emotional intelligence in digital leadership in the banking sector

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Abstract

This study investigates the impact of Green Human Resource Management (GHRM) practices on employee technostress and examines the moderating role of Emotional Intelligence (EI) within digital leadership in the banking sector. While GHRM initiatives are designed to promote environmental sustainability, they may inadvertently increase employee technostress due to evolving technological demands and process changes. Using a quantitative approach, data were collected from 165 banking employees across hierarchical levels and analyzed through structural equation modeling. The findings reveal a significant positive relationship between GHRM practices and employee technostress, indicating that sustainability-driven HR policies can contribute to workplace stress. Additionally, technostress is found to have a negative effect on employee engagement, emphasizing the unintended consequences of digital transformation in green initiatives. However, the moderating role of EI in mitigating technostress was not statistically significant, suggesting that while EI plays a role in workplace adaptability, it may not be sufficient to counteract stress caused by GHRM practices. These results underscore the need for organizations to implement supportive mechanisms such as leadership interventions and targeted training to balance sustainability goals with employee well-being. Future research should further explore these relationships across diverse industries and cultural contexts to refine HR strategies for digital transformation and green initiatives.

Keywords: Digital leadership, Emotional intelligence, Employee engagement, etc. Employee technostress, Green human resource management.

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1. Introduction

1.1. Background and Significance of Green HRM in the Banking Sector

Green human resource management (GHRM) has become a critical strategic category to address environmental concerns with a people-centered approach at the workplace. Over the years, Green HRM has become prevalent in the banking sector because it has no option but to follow the stakeholders', legal, and public opinion demands to green its operations [1]. Some initiatives of Green HRM that have been implemented in the banking sector include environmentally friendly training, conservation of power using electronic documents instead of paperwork and changing employees' behavior at workplaces. When integrating these practices, the bank can gain the intended improvements in environmental performance that also include the corporate reputation, other than employees' engagement [2]. Because the sector is a major part of the large-scale service industry, every movement it makes towards sustainability, for instance, WFH or adopting policies to decrease resource utilization, affects the environment significantly [3-5].

1.2. Overview of Employee Technostress and Its Relevance

As organizations embrace technologically advanced and environmentally friendly practices, technostress, which is stress arising from the use of technology, has emerged as an important aspect [6]. Technostress among employees is most often associated with factors such as technology-driven changes, constant availability pressures, and ongoing expectations to adapt. In the banking sector, as the industry undergoes rapid digital transformation, employees frequently experience technostress due to the required technological competency and compliance with Green HRM policies [7-9]. While Green HRM initiatives are designed to foster sustainable environments, there is a risk that they may induce technostress if employees perceive the changes in practices as burdensome or if they are not adequately trained to adapt. Therefore, managing technostress is crucial to help Green HRM achieve its intended goals without compromising employees' health.

1.3. Purpose of the Study and Research Objectives

The rationale for the current research is to find an answer to the following question: To what extent does Green HRM influence employee technostress in the banking industry, and how does the digital leaders' emotional intelligence mediate this relationship? This research seeks to contribute to the literature on Green HRM by exploring an often-overlooked area: some of the implicit impacts of green strategies on employees' mental health. Specifically, this study has the following objectives:

- 1. To determine the extent to which Green HRM practices influence employee technostress in the banking sector.
- 2. To examine the moderating role of digital leaders' emotional intelligence in the relationship between Green HRM practices and employee technostress.

By addressing these objectives, the study aims to provide actionable insights for banking institutions on balancing environmental goals with employee well-being, emphasizing the importance of leadership qualities in mitigating technostress.

2. Literature Review

2.1. Green HRM and Its Impact on Employees

Green Human Resource Management (Green HRM) is the process of incorporating environmental management goals into human resource management activities as well as seeking to change organizational employee consciousness to sustainable environmental management [10, 11]. It also goes further, affecting employment engagement, job satisfaction, and organizational commitment among the employees. This section also analyses the implications of Green HRM for employees, both positive and negative.

2.2. Enhanced Employee Engagement and Job Satisfaction

When individuals engage their values to support the organization's sustainability agenda, Green HRM practices will likely improve organizational employee engagement levels. Côté [12] pointed out that many studies have shown that employees who develop a positive perception of their organization's environment also develop a higher level of organizational commitment to their work. For example, when Green HRM was implemented in organizations that aimed at satisfying environmental commitments, it was observed that employees demonstrated higher levels of engagement because such

practices meet individuals' self-actualization needs to help protect the environment. The enjoyable experiences that come from engaging in green activities are said to reinforce employees' organizational identification, given that the entities' inputs are perceived to reflect the collective organizational values of environmental and social welfare [13]. Nonetheless, Green HRM can politically influence the level of engagement, and the extent of this impact may be mitigated by the degree of intrinsic motivation and environmental standards of an employee [14].

2.3. Psychological Strain and Technostress

However, this review also points out that Green HRM can create the unintended adverse effect of the enhancement of such variables as psychological strain. For instance, adopting paperless practices, energy-saving practices, or environmentally friendly technologies are practices that might force employees to change how they work, as such practices are likely to cause technostress; stress that occurs from the use of technological products and services [15]. According to Jena [8], Green HRM enhances organizational sustainability, but it becomes a problem if employees are pressured to address environmental issues as part of their HRM responsibilities [16, 17]. This extra work could lead to a feeling of green fatigue or even reduce employees' job satisfaction in case they regard these tasks as an extra load or they are short of resources to complete them [18].

2.4. Organizational Citizenship Behavior (OCB)

Green HRM has also been observed to enhance Organizational Citizenship Behavior (OCB); specimens of behaviors employees undertake independently, going outside formal expected organizational benchmarks, aimed at implementing the green initiatives of the company [18]. For instance, employees may perform tasks not part of the official descriptions by participating in the recycling program or the effort to reduce energy use at workplaces. This behavior fits under the idea of environmental stewardship, within which individuals understand that they bear a direct responsibility towards the organization as well as society at large [19]. Nevertheless, it is crucial to underline that the effect of such factors on OCB may vary depending on some moderators, such as leadership support. Since leaders are found to have a significant function of encouragement, reinforcement, and acknowledgment of the voluntary green behaviors of the employees, the usefulness of the Green HRM approach in enhancing OCB highly depends on the organizational cultural support to champion environmental conservation.

2.5. Impact on Employee Well-being and Retention

The influence of Green HRM on employee well-being is complex. On the one hand, it is found that with increasing organization-environment responsibility perception, job satisfaction and psychological well-being of the employees increase [20]. On the other hand, the additional workload or role ambiguity stemming from green initiatives can lead to burnout, particularly when Green HRM policies are imposed without proper training or resources [21]. For instance, Ren et al. [21] established that organizational support for mandatory environmental performance reduced employees' anxiety levels and turnover intention. Thus, while Green HRM can enhance retention by aligning with employees' values, it may also drive them away if improperly implemented.

2.6. Employee Technostress in Organizational Settings

Technostress is increasingly recognized as a significant challenge in modern organizations, defined as a form of stress that employees experience due to their interaction with technology [22]. With digital transformation as the new norm, whether in operational manufacturing or service delivery, the integration means that employees are subjected to new technologies, applications, and communication platforms, all of which increase efficiency but may also disturb psychological and cognitive processes. This section explores the dimensions of employee technostress in organizational settings, the factors contributing to it, and its implications on job performance and well-being.

2.7. Dimensions and Manifestations of Technostress

Technostress has been defined from five perspectives: technostress overload, technostress complexity, technostress insecurity, and technostress boundary infringement [23]. Technological overload occurs when employees experience the need to undertake several activities within a short duration due to very high technology expectations [15]. Completeness results from the constant need to learn new software and digital tools, which can easily become mentally exhausting. Other aspects of technostress include insecurity, which is the technological fear that comes with the threat of potential job loss due to automation and digitalization [24]. All these factors combine to create conditions of anxiety and overwhelm at work, leading employees to compromise productivity as they sacrifice mastery to get the job done.

Scholars have continued to document that technostress can cause all-embracing detrimental effects on the psychological well-being of employees and their performance. For instance, Ayyagari et al. [15] found that the anxiety levels of employees with more frequent exposure to new technologies in their organizations were destructive to engagement and satisfaction. This relationship between technostress and lower levels of job satisfaction has been evidenced in subsequent research, and recent studies also note that technostress is more than just a technological problem but also an organizational one that needs to be tackled with proper Multi-Strategy Antecedents of Technostress and Techno-Stressin policies.

2.8. Impact on Job Performance and Cognitive Fatigue

Using Ahmed et al. [10] methodology, assessing the case studies' conclusions, the author identifies the fact that the cognitive demands involved in technology management in the workplace can lead to a decline in employee job performance

over time. An investigation shows that it threatens one's focus as well as decision-making potential since notifications, multitasking, and interface jams shut down employees' capacity to make decisions [25, 26]. Cognitive fatigue is not a false productivity decrement since it distorts an employee's capacity to properly and efficiently complete a given task. According to Tarafdar et al. [6], besides offering a window into information and communication, technology contributes to the construction of an 'always-connected identity' that hinders non-work disconnection. This constant connectivity results in exhaustion given that employees are climaxing emotionally; productivity reduces, together with their willingness to change employers.

In addition, the impact of technostress on effective job performance is worse because the employees feel that their roles are not well understood, and they have less control [27]. Whenever people are given more to do and the scope of technology delivering new processes that have not been elaborated much, learners will feel pressed with work and stressed. From the data, it can be inferred that information technostress needs management intervention in addition to IT solutions; to counter the stress associated with such calls for organizational strategies that directly support a healthy use of technology in a working setting that is sustainable [24].

2.9. Strategies to Mitigate Technostress in Organizational Contexts

Organizations have a role in managing technostress by establishing supportive environments that buffer its effects. Stress arising from adapting to new technologies can be eased by extended training and enhancing the digital competencies of all employees, as research seeks to highlight [28]. For instance, training programs that enhance technological proficiency and ensure employee confidence in using digital tools can significantly reduce the anxiety associated with technostress [27]. Moreover, to minimize crossover, organizations should encourage the differentiation of the work-life interface based on technology use; this involves organizing the use of technology during work-related matters excluding the informal use during working hours, work break time, or during the rest of the time outside work; the latter has been found to assist employees detach from work sources and stress [26].

Moreover, a collaborative work environment where employees feel free to seek help with technological challenges can alleviate technostress. Maier et al. [24] highlight that social support within teams is a critical factor in managing technostress, as it enables employees to share knowledge and resources, reducing the individual burden of technological adaptation. In addition to the general fostering of feedback and participation in decision-making concerning new technologies, it also helps to ensure that a given workforce will have the ability and the tools to deal effectively with the increased technological loading of contemporary work environments.

2.10. Role of Emotional Intelligence in Digital Leadership

The concept of emotional intelligence (EI) has become increasingly relevant in the context of digital leadership, where leaders are expected to manage complex, technology-driven environments while addressing employees' emotional needs. EI encompasses the ability to recognize, understand, and manage one's emotions and those of others, which is essential for fostering effective communication, empathy, and motivation within teams [29]. In digital leadership, these qualities are particularly valuable as leaders navigate rapid technological change, mitigate employee technostress, and enhance overall organizational resilience [30].

2.11. Importance of EI in Digital Leadership Amid Technological Disruption

This result implies that leaders with high EI are well-placed to address challenges that arise from technology integration in today's complex workplaces. In line with Cherniss and Goleman [31], EI leaders build trust and encourage people to work in conditions of psychological safety that allow them to better adjust to new technologies and practices at work. Technology can change constantly, and this can become a stress source for employees. Many people may feel that they must learn something new all the time or feel the pressure of performing well in front of a computer. Such concerns can be addressed by leaders with high EI who listen to and support employees, understand how change may be challenging, and provide the necessary help, which has resulted in enhanced employees' performance and well-being [32].

Moreover, EI in digital leadership fosters a culture of open communication, which is essential in organizations undergoing digital transformation. Managers with high levels of EI exhibit open communication and foster communication with employees about technological advancements, the changes they experience, and the help required in that process. Sy et al. [33] asserted that leaders who practiced EI enhanced positive results on the satisfaction and performance of the employees and hence the conclusion can be made that EI is strategic, especially guaranteeing that employees in technology-related organizations remain positive and hardworking despite the challenges posed by advanced technology.

2.12. EI's Influence on Team Cohesion and Adaptability to Digital Transformation

The first advantage of choosing emotionally intelligent digital leaders is their capacity to sustain unity among teams during disruptive technologies. Team cohesiveness is quite important in creating cooperation and getting people to merge efforts and come up with creative, productive solutions, especially in organizations where individuals work in online or technical settings. According to George, leaders with high levels of EI can decipher and interpret the signals of emotional conduct from other team members and can therefore foster positive feelings of teamwork. This is particularly important in digital leadership, where virtual teams are increasingly common and face-to-face interactions are limited. Emotional intelligence aids leaders in overcoming feelings of alienation among those working remotely to develop camaraderie and cooperation [34].

Flexibility in the work environment is crucial for productivity in the digital environment, and effective managers with high EI are accustomed to impacting it positively in their subordinates. Learning and development, giving feedback, and encouraging a growth and development culture. In Carmeli's [35] work, emotionally intelligent leaders excel in the development of learning, often among employees. Such flexibility is paramount in a setting where employees are continually confronted with new techniques and approaches to working. By reinforcing a culture of resilience and continuous learning, emotionally intelligent leaders can minimize resistance to technological change, leading to smoother transitions and greater organizational agility [36].

2.13. The Impact of EI on Employee Engagement and Productivity

High levels of EI in digital leaders have also been associated with increased employee engagement and productivity. Employee engagement, a crucial factor in organizational success, is often challenged in digital environments due to the pressures and uncertainties introduced by technology [37]. Leaders who exhibit emotional intelligence can recognize early signs of disengagement or technostress among employees and intervene appropriately. For instance, emotionally intelligent managers may decide to allow workers to take breaks on their own, sponsor training on new technologies, or just comfort the workers at such a time [11]. Such activities help the employees become more satisfied with the job they are doing as well as have better working capability in a technology-driven setting.

Also, EI helps leaders to create a sense of meaning and rhyming with the organizational goals, which is desirable when it comes to creating engagement in digital contexts. According to Albrecht [38], emotionally intelligent leaders must present technological ideas in a way that would foster the creation of a collective organizational purpose. Effectively linking individual work to general organizational objectives, as well as having high EI, digital leaders can maintain motivation and productivity during radical technological development.

2.14. Conceptual Framework and Hypothesis Development

The conceptual framework of this study integrates Green Human Resource Management (GHRM), employee technostress, and the moderating role of emotional intelligence in digital leadership. Each component has been theorized and empirically supported in prior research, allowing for the development of hypotheses that examine how GHRM impacts technostress and how emotional intelligence in leadership might moderate this effect.

2.15. Green HRM and Employee Technostress

Green HRM is defined as the actual HRM practices by which, through working environment, training, management and reward systems, organizations foster environmentally friendly behaviors among their employees [39]. The implementation of GHRM practices has become popular when organizations aim at realizing CSR initiatives while maintaining employees' morale. Research has indicated that engagement in GHRM can enhance the level of job satisfaction and organizational commitment [40], but at the same time, it can cause employee technostress in high-technology industries. Technostress refers to the stress employees experience when adapting to new technologies, which can be exacerbated when green practices are digitally intensive or demanding [28].

In a recent study, Tuan [41] highlighted that employees often experience technostress when organizations emphasize digital sustainability, as they may feel pressured to use and learn environmentally focused technologies continuously. That is, even though the GHRM practices reported may underpin positive organizational outcomes, they could also have negative impacts, such as stress from the constant adjustment to the use of digital technologies for sustainability. Hence, the research findings point to a positive relationship between GHRM for achieving ecological goals, but a negative relationship whereby exposure to green technological applications may harmfully affect employee stress levels.

2.16. Role of Emotional Intelligence in Moderating Technostress

Emotional intelligence (EI), particularly in digital leadership, plays a significant role in helping employees manage the technostress associated with GHRM practices. EI refers to the skills or aptitude that enable an individual to appreciate emotions both in self& others [29]. Highly EIs can help leaders offer the needed emotional support and reduce stress reactions that may develop among employees regarding the effectiveness of green technologies [8]. They do this by ensuring that employees feel free to report or discuss challenges that they encounter while using technology to enhance work productivity, thus helping to create a culture of adaptability and resilience [42].

From Avolio et al. [43], it can be argued that digital leaders with high EI are capacitated of communicating and providing empathetic support for the needed change and trigger employees' positive attitude towards the digital change process. When GHRM practices lead to increased technostress, digital leaders with high EI can moderate these effects by addressing the emotional responses associated with stress, helping employees see the personal and organizational benefits of these practices. EI, therefore, serves as a critical moderating variable, providing a buffer against the adverse effects of technostress and ensuring that employees remain engaged and motivated amid technological demands [12].

2.17. Hypotheses Development

Based on the insights provided, the following hypotheses are proposed:

- H1: Green Human Resource Management (GHRM) practices have a positive impact on employee technostress.
- H2: Emotional Intelligence (EI) moderates the relationship between GHRM practices and employee technostress.
- H3: Employee technostress has a negative impact on employee engagement.
- H₄: Technostress mediates the relationship between GHRM practices and employee engagement.

H₅. Emotional Intelligence has a direct and indirect effect on employee technostress and employee engagement.



Figure 1. Study Conceptual Framework.

3. Research Methodology

3.1. Method and Data Presentation

This research employs a quantitative approach and uses self-administered questionnaires for data collection. Quantitative methods stress measuring in terms of objective parameters, analysis, and numbers, usually through questionnaires and surveys. Third, packages are often used in the analysis of secondary datasets. The data to conduct this study was collected at ASP Auditing – Bahraini Specialized Partnership Co. The company's HRM plan is making the practice of GHRM.

The measurement scales for this study are borrowed and modified from earlier works from existing literature to achieve reliability and construct validity. The Green HRM scale evaluates environmentally sustainable HR practices, drawing on items from Renwick et al. [39]. Employee Technostress is measured using items developed by Tarafdar et al. [44] to capture stress related to technology use at work. Emotional Intelligence, as a moderating variable, is assessed using the Wong and Law Emotional Intelligence Scale (WLEIS), which emphasizes self-awareness, self-regulation, and interpersonal skills [45]. Finally, Employee Engagement is measured using the Utrecht Work Engagement Scale (UWES), which assesses vigor, dedication, and absorption [46]. These mentioned scales offer a solid ground for data collection; hence, the accuracy and meaningfulness of the constructions within the banking sector consistency is guaranteed for the objective. We further pretested this tool to remove all the uncertainty that may be associated with the use of the questionnaire. This made sure that the participants would understand the questions and respond in the way they wanted to respond. We collected data using a 5-point Likert scale and analyzed it using descriptive statistics.

Table 1 presents the demographic distribution of respondents by gender in the study titled "The Impact of Green HRM on Employee Technostress: The Moderating Role of Emotional Intelligence in Digital Leadership in the Banking Sector." Analyzing data of the 165 participants, 63.64 % (105 participants) reported they were male, while 36.36 % (60 participants) reported being female. The total percentage of supplements shows that the respondent pool represents its full potential. These demographics provide a foundational context for analyzing the interplay between Green HRM practices, technostress, and the moderating role of emotional intelligence in digital leadership.

Table 1.

Demographic (Gender) Cumulative % % Number SEX F 60 36.36% 36.36% M 105 63.64% 100% 165 100% 100% Total

Table 2.Demographic table (Hierarchical Levels)

Roles	Frequency	%	Cumulative %
Partners	10	6.02%	6.02%
Managers	30	18.07%	24.10%
Auditors	40	24.10%	48.19%
Interns/Assistants	85	51.81%	100.00%
Total	165	100%	100.00%

Another key demographic shown in Table 2 in this study is the hierarchical roles of the respondents. Of the 165 participants, the largest group was the interns/assistants at 51.81%, with the auditors at 24.10% and managers at 18.07%. Partners had the lowest scores at 6.02% of the total representation. The cumulative percentages indicate a clear representation of various hierarchical levels, offering a comprehensive view of how Green HRM practices and technostress are perceived across different organizational roles within the banking sector.

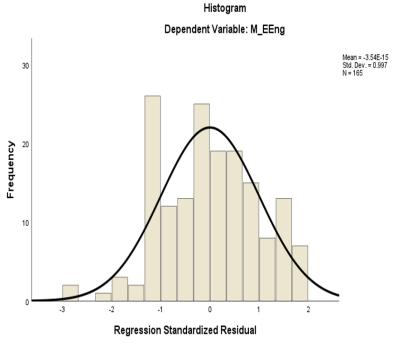
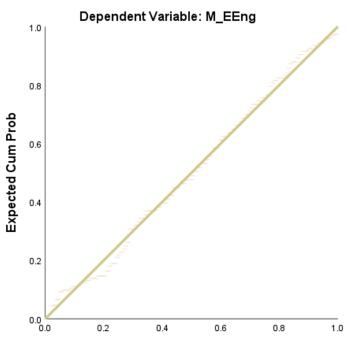


Figure 2. Histogram.

The histogram (Figure 2) of regression standardized residuals for the dependent variable ($M_{\rm EEng}$) indicates a near-normal distribution, as evidenced by the bell-shaped curve. The mean of the residuals is 0, whereas the standard deviation is 0

SDD=0.997, which means that the residuals are symmetrical around the mean. This result supports the assumption of normality, a key criterion for the validity of regression analysis [11]. In addition, the population use sample size (N=165) offers sufficient power of statistical tests for increased reliability. These studies support the application of the model for the subsequent analysis and verify the validity of the obtained data.



Normal P-P Plot of Regression Standardized Residual

Figure 3. p-p plot.

The normal p-p plot (Figure 3) of regression standardized residuals for the dependent variable (M_EEng) demonstrates that the residuals closely follow the diagonal line, which represents the expected cumulative probability. This alignment

Observed Cum Prob

indicates that the data satisfy the assumption of normality for regression analysis. The deviations from the diagonal are relatively small, therefore confirming the authenticity of the regression model [8]. Consequently, they confirm the residuals' prima facie, improving the assessment's credibility and stability of conclusions based on the analysis.

Table 3. Descriptive Statistics

	N	Std. Deviation	Skewness	Kurtosis		
Constructs	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
M_GHRM	165	0.46488	-0.282	0.189	-0.132	0.376
M_ETec	165	0.43563	0.067	0.189	-0.701	0.376
M_EI	165	0.50097	-0.224	0.189	-0.425	0.376
M_EEng	165	0.54630	-0.147	0.189	-0.455	0.376
Valid N (listwise)	165					

The descriptive statistics (Table 3) for the study variables, as presented in the table, indicate acceptable variability and distribution characteristics. Standard deviations are within a moderate value between 0.43563 (M_ETec) and 0.54630 (M_EEng). The skewness values for all variables fall within the range of -0.282 (M_GHRM) to 0.067 (M_ETec), and their associated standard errors indicate that the data are approximately symmetrically distributed, as skewness values are close to zero. Similarly, the kurtosis values range from -0.701 (M_ETec) to -0.132 (M_GHRM), with none exceeding the acceptable threshold of ± 1.96 for a normal distribution (Hair et al., 2010). It should also self-fulfill that all assumptions of normality have been met touching on the dataset as earlier illustrated by the results of the descriptive statistics.

Table 4. Reliability and Validity Measures of Constructs

-	Cronbach's alpha	CR (rho_a)	CR (rho_c)	AVE
EEng	00.83	0.885	0.868	0.550
EI	0.818	0.863	0.779	0.696
ETec	0.935	0.956	0.948	0.603
GHRM	0.945	0.946	0.954	0.722

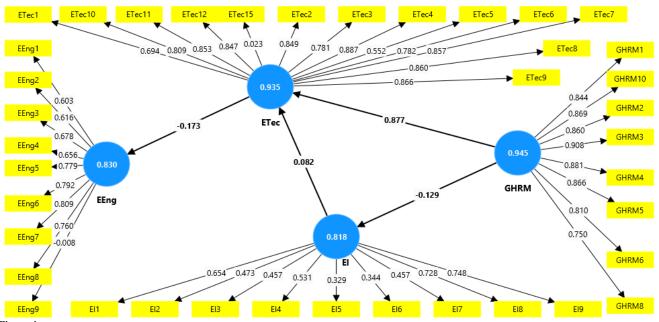


Figure 4. Measurement Model.

The model depicted in the structural path diagram provides a comprehensive overview of the relationships among the constructs of Employee Engagement (EEng), Emotional Intelligence (EI), Employee Technostress (ETec), and Green HRM (GHRM). The construct validity and reliability have been established by the presented Cronbach's alpha values and measures of composite reliability. First, all constructs achieve high reliability, as indicated by the Cronbach alpha coefficients greater than 0.70, which is a recommended criterion by Hwang et al. [11]. GHRM has the highest internal consistency reliability, with a Cronbach alpha of 0.945, and EEng has a Cronbach alpha of 0.83. Additionally, the composite reliability (rho_c) values for all constructs are above 0.7, further confirming the robustness of the scales (e.g., GHRM: 0.954, ETec: 0.948) as mentioned in Table 4.

The Average Variance Extracted (AVE) values indicate adequate convergent validity for three constructs, with AVE values exceeding the benchmark of 0.50 (e.g., GHRM: 0.722, EEng: 0.550). However, the AVE for EI (0.696) indicates

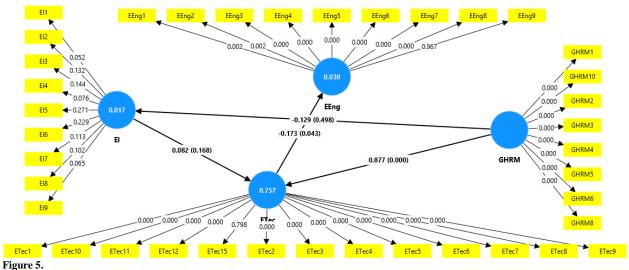
particularly strong convergent validity. In the path diagram, the various variables within a model are shown about the direct and indirect links that exist within a model. For instance, ETec exhibits a negative path coefficient (-0.173) with EEng, indicating a potential adverse effect of technostress on employee engagement, while GHRM positively influences ETec (0.877). These findings align with prior literature emphasizing the moderating role of emotional intelligence in mitigating technostress and enhancing engagement in the context of digital leadership [14].

Table 5.
Direct Effects (Path Coefficients).

	Original sample (O)	Sample mean (M)	STDEV	T statistics	P values
EI -> ETec	0.082	0.053	0.060	1.379	0.168
ETec -> EEng	-0.173	-0.209	0.086	2.022	0.043
GHRM -> EI	-0.129	-0.049	0.190	0.678	0.498
GHRM -> ETec	0.877	0.871	0.025	340.651	0.000

Table 6. Mediating, Indirect and Moderating Effects.

Constructs	Original sample	Sample mean (M)	Standard deviation	T statistics	P values
GHRM -> ETec -> EEng	-0.152	-0.182	0.074	2.038	0.042
GHRM -> EI -> ETec -> EEng	0.002	0.001	0.003	0.617	0.537
GHRM -> EI -> ETec	-0.011	-0.004	0.013	0.795	0.427
EI -> ETec -> EEng	-0.014	-0.010	0.014	10.010	0.312



Structural Model.

4. The Findings of the Study

The findings of this study provide significant insights into the complex interplay between Green HRM (GHRM), Employee Technostress (ETec), Emotional Intelligence (EI), and Employee Engagement (EEng). The statistical results confirm that GHRM practices positively influence employee technostress, as shown by the statistically significant relationship between these constructs; hence, H1 of this study is supported. Furthermore, technostress is found to have a negative and significant effect on employee engagement, indicating that increased technostress undermines employees' capacity to remain engaged at work; therefore, H3 of this study is also supported. However, the hypothesized moderating role of emotional intelligence (H2) in the relationship between GHRM and technostress was not strongly supported, suggesting that while EI may contribute to individual coping mechanisms, its influence may not be sufficient to offset the pressures induced by GHRM policies. The structural model's results also provide support for the mediating role of Employee Technostress in the relationship between Green Human Resource Management (GHRM) practices and Employee Engagement. The significant effect observed in this relationship; hence, H4 of this study is supported. This suggests that GHRM practices influence engagement levels through their impact on technostress. This indicates that technostress acts as a mechanism through which GHRM affects employee engagement. The findings do not support the proposed direct or indirect influence of Emotional Intelligence (EI) on Employee Technostress and Employee Engagement. The results indicate that EI does not significantly alter the relationship between technostress and engagement, nor does it have a meaningful indirect impact. This suggests that in the context of this study, EI does not play a substantial role in shaping how technostress affects employee engagement. Thus, H5 of this study is not supported.

5. Limitations of the Study

Despite the valuable insights provided, this study has several limitations that merit discussion. First, the research was conducted in a single sector, the banking industry, which may limit the generalizability of the findings to other industries with varying organizational dynamics and technological demands. Additionally, the sample size, though adequate for statistical analysis, was confined to a specific geographic region, potentially overlooking cultural or institutional factors that could influence the relationship between Green HRM, technostress, emotional intelligence, and employee engagement. Another limitation is the cross-sectional nature of the study, which restricts the ability to infer causal relationships between the variables. Longitudinal studies could provide a deeper understanding of how these relationships evolve. Lastly, the reliance on self-reported data introduces the possibility of response bias, as participants may have provided socially desirable answers rather than accurate reflections of their experiences.

6. Recommendations for Future Research

Future studies could address these limitations by expanding the scope of research across diverse sectors and geographical regions to enhance the generalizability of the findings. Incorporating longitudinal research designs would allow for an examination of the temporal dynamics and causal pathways among Green HRM, technostress, emotional intelligence, and employee engagement. Additionally, employing mixed-method approaches, such as qualitative interviews or focus groups, alongside quantitative surveys, could offer richer insights into the mechanisms underlying these relationships. To minimize response bias, future research could incorporate objective performance metrics or peer evaluations. Finally, exploring the role of other moderating variables, such as organizational culture or leadership styles, could provide a more nuanced understanding of the factors that influence the impact of Green HRM and technostress on employee outcomes.

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