



Think Green: Impact of Green Human Resource Management on the Green Performance of Employees through the Mediating Role of Green Work Engagement

Atif Ali Gill¹, Shehzad Farrokh², Muhammad Usman Haider³, Rabia Zubair⁴

¹ Faculty, Department of Business Administration, University of Sahiwal, Pakistan. Email: atifali@uosahiwal.edu.pk

² Assistant Director, Technical Education & Vocational Training Authority, Sahiwal, Pakistan.
Email: ch.farrokh@hotmail.com

³ Principal, GTTC, CJ, Technical Education & Vocational Training Authority, Sahiwal, Pakistan.
Email: hmusmanhaider@gmail.com

⁴ MS Scholar, Department of Business Administration, University of Sahiwal, Pakistan.
Email: rabiiazubair958@gmail.com

ARTICLE INFO

ABSTRACT

Article History:

Received: May 10, 2023
Revised: June 25, 2023
Accepted: June 25, 2023
Available Online: June 26, 2023

Keywords:

Green Human Resource Management
Green Performance
Green Work Engagement
Higher Education Institutes

Funding:

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

The current study analysed the influence of green human resources on employees' effectiveness level of employees in the higher education sector. The data were collected through a survey using reliable and valid instruments adopted from the literature. The unit of analysis was an individual working as an employee in higher education institute in Pakistan, Sahiwal district. The results indicated that green human resource management significantly influences the employees' green performance. The current study provides several theoretical implications by extending the social exchange theory by analysing the mediating impact of green work engagement for higher education institutes to engage employees to improve their green performance in organizations.

© 2023 The Authors, Published by iRASD. This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License

Corresponding Author's Email: rabiiazubair958@gmail.com

1. Introduction

The ability of the organization's human resources to transform other resources, including money, machine, processes, and material, into output, such as products and services, is the source of its competitive advantage. They are among the most crucial elements that give organizations flexibility and adaptability (A. Gill, Ahmad, & Kazmi, 2021). The adaptive mechanism that determines how the firm will react to the competitive environment, according to (Yong, Yusliza, Ramayah, Farooq, & Tanveer, 2022), is people (managers), not the firm. Competitors can copy other resources, such as technology, money, and raw materials, but it is not easy to copy human resources (A. A. Gill, Ansari, & Tufail, 2021). They become a unique resource due to all these causes, necessitating their efficient administration. Green human resource management (GHRM) is crucial for motivating staff to participate in eco-friendly efforts consistent with the organization's business strategy. According to Kodua et al. (2022), GHRM is a collection of procedures businesses use to implement environmental sustainability policies.

Farooq, Zhang, Talwar, and Dhir (2022) explained GHRM as "HRM activities that enhance positive environmental outcomes" They must also revive and acknowledge the evolving demands and challenges of environmental management issues to set a pattern for addressing current environmental problems. In addition, they need to refresh and accept the shifting requests and challenges of environmental management issues to charge precedence. The contribution provided by this work is as follows: Due to the widespread literature on GHRM's link with employees' green work results, it initially (A. A. Gill, Kazmi, & Ali, 2021) achieved employee commitment and enhanced the financial and environmental performance of the firm. The current study aimed to develop a model of the consequences of GHRM practices on higher education. Employees' green behaviours both inside and outside of their roles.

In the previous discussion, empirical data from a wider body of organizational behaviour literature was given. There are clear connections between green work involvement. Therefore, extending social exchange theory in context with GHRM would offer novelty to the existing knowledge. There is already research done in developing countries, but there needs to be more investigation in developing countries, particularly in the higher education sector (Mousa & Othman, 2020).

2. Literature Review

2.1. Green performance

It can be defined as "the positive impacts of green initiatives within and outside a company on its natural environment" (Farias, Santos, Gohr, de Oliveira, & da Silva Amorim, 2019). Green performance "encompasses energy productivity as well as carbon productivity, water productivity, waste productivity and green image" (Wang, 2019). Performance management encourages employees to improve their skills to help the organization meet its goals more successfully.

2.2. Green HR Management and Green Work Engagement (GWE)

GHRM practices have been broadly conceptualized and defined by experts as practices that involve hiring employees with green knowledge and awareness, providing training that enhances those competencies, conducting performance appraisals that evaluate the effectiveness based on established standards for green performance evaluation; as well as rewarding employees according to how successfully their goals have been accomplished (Aftab, Abid, Cucari, & Savastano, 2023; Hooi, Liu, & Lin, 2022; Munawar, Yousaf, Ahmed, & Rehman, 2022).

Characteristics of jobs, leadership practices and HRM practices were all known factors contributing to employee engagement at work. Most research on HRM focused on its impact on top-down HR systems and practices on employee engagement - for instance, Albrecht et al. (2015) proposed a model that combined job motivational, personal and organizational factors that lead to greater work-related engagement. Studies also show an association between human resource use and workplace engagement (Aboramadan, Albashiti, Alharazin, & Dahleez, 2020).

Understanding the link between green management of human resources (GHRM), Green Work Engagement (GWE) and job demand and resource framework is critical to comprehending their relationship. Resources related to job and organizational HRM practices such as HRM practices can serve as motivating factors, connecting resources with work engagement. From this viewpoint, implementing GHRM in the workplace may be seen as a motivational factor that positively contributes to employee engagement. Resources, such as GWRM, could serve an intrinsic or extrinsic motivational function by supporting employees' career advancement and helping them realize their career goals. GWE is believed to encourage employee commitment toward work; given this and the above hypothesis, its introduction can be considered a breakthrough.

H₁: Green Human Resource Management significantly influences the green work engagement of employees.

2.3. Green work engagement (GWE) and Green Performance (GP)

Employees can advance proactive environmental initiatives by incorporating them into their everyday tasks. Employees enjoy working in environments that promote enjoyment and enhance performance, which allows them to concentrate on improving their work by eliminating ineffective processes and tasks. Therefore, recycling raw materials enhances recycling processes, reduces resource use costs and overall performance (Ababneh, 2021).

Engaged employees make independent decisions if they have the power to identify and correct negative workplace behavior, leading them to improve performance. Employees might identify activities to reduce consumption rates. With increased flexibility, employees become more engaged and improve their GP (Aboramadan et al., 2020). Studies have proven the correlation between working engagement and increased performance and its effect on GDP (Aboramadan et al., 2020).

H₂: Green work engagement significantly influences the green performance of employees.

2.4. Mediating Role of Green Work Engagement (GWE)

Evidence from more prominent research on organizational behaviour was discussed earlier (Aboramadan et al., 2020). Due to the complex nature of human behaviour in both professional and personal contexts, we must consider intricate interactions among variables through indirect effects that flow between them; investigating mediation through GWE will add another dimension of insight to research literature.

Employee perceptions about the greenness and level of engagement within their workplace environments could influence relationships between GHRM and GP due to these associations. Studies have already demonstrated how climate influences the relationships between green HRM practices, behaviors, and environmental practices (Ababneh, 2021); similarly, GWE plays an integral part in many situations within organizations - for instance, concerning HRM practice within manufacturing SMEs (Aboramadan et al., 2020).

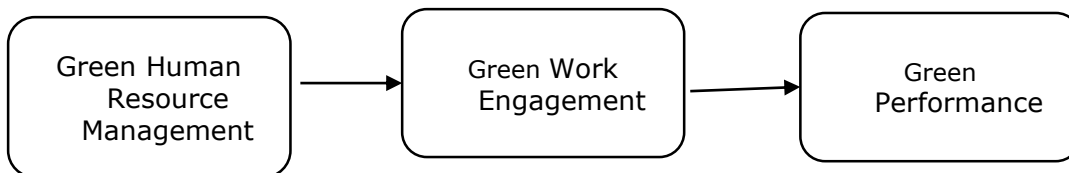
A greener environment makes employees feel positive emotions, such as confidence and energy to perform green work (Karatepe, Ozturen, Karatepe, Uner, & Kim, 2022), thus increasing GP. Furthermore, this study illustrates both direct and mediational impacts. It includes Green Engagement as one key mediator; therefore, GWE is often believed to be an influential factor that has positive impacts on performance motivation; moreover, this paper suggests GWE as one such possible intervening variable in terms of its relationship to both variables GHRM methods and performance GP.

H₃: Green work engagement significantly mediates the relationship between green human resource management and green performance.

3. Theoretical Framework

Social exchange theory has been used to explain the connection between individuals based on the cost and benefit analysis, and they exchange based on this concept. It is a method to measure the amount of effort put into an individual-to-person relationship. Figure 1 depicts the diagrammatic outline that outlines the conceptual framework.

Figure 1: Research Model



Methodology

4.1. Sampling

A close-ended questionnaire was used to gather information from employees working in higher education institutions of Sahiwal District, Punjab, Pakistan. The responses were collected using a survey, a quantitative research method based on a well-structured questionnaire. In addition, participants will be informed by the researchers that (1) that participation in the survey will be entirely voluntary, (2) surveys will remain private, and (3) the responses they provide are used for research only. A convenience sampling technique was employed.

4.2. Operationalization

The operationalization of variables stated in Table 1 below:

Table 1: Operationalization of Variables

Variables	Item	Sources
Green Work Resources Management	5	(Dumont et.al.,2017)
Green Work Engagement	5	(Pham et al., 2020)
Green Performance	5	(Aboramadan, Hassi, Alharazin, Dahleez, & Albashiti, 2019)

5. Data Analysis

5.1. Respondents' Profiles

Table 2 reflects the respondents' profiles:

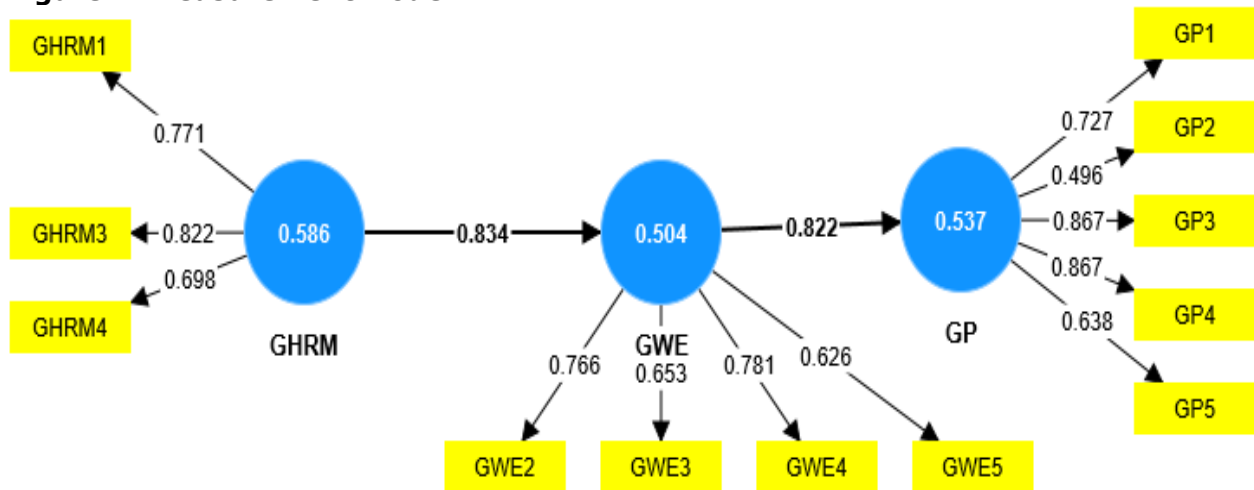
Table 2: Respondents' Profile

Variable	Description	Frequency
Gender	Male	167
	Female	78
Age	18-27	60
	28-37	120
	38-47	46
	48-57	13
	58- Above	6

5.2. Valuation of Measurement Model

The assessment of the measurement model consists of four steps: first, Cronbach alpha; second, measure the outer loading of items; Third, measure convergent validity through average variance extracted (AVE); fourth and last discriminant validity. Figure 2 shows assessment outer model:

Figure 2: Measurement Model



5.2.1. Reliability Internal Consistency

Cronbach's alpha measures internal consistency reliability, and values between 0.70 and 0.90 are satisfactory. While indicator reliability is shown through loadings with values equal to and more significant than 0.4, as shown in Table 3.

Table 3: Measurement Model Results (Convergent Validity)

Constructs	Items	Loadings	Alpha	CR	AVE
Green HRM	GHRM1	0.771	0.644	0.809	0.586
	GHRM3	0.822			
	GHRM4	0.698			
Green performance	GP1	0.727	0.771	0.848	0.537
	GP2	0.496			
	GP3	0.867			
	GP4	0.867			
	GP5	0.638			
Green work engagement	GWE2	0.766	0.672	0.801	0.504
	GWE3	0.653			
	GWE4	0.781			
	GWE5	0.626			

5.2.2. Discriminant Validity

Table 4 shows that the Average variance extracted value is more significant than its corresponding cells, showing that all constructs used in the study are discriminant valid.

Table 4: Discriminant Validity

	GHRM	GP	GWE
GHRM	0.765		
GP	0.750	0.733	
GWE	0.834	0.822	0.710

5.3. Valuation of Structural Model

The assessment of relationships is the second step of analysis in SmartPLS 4.0, as shown in Figure 3. The bootstrapping procedure was adopted to test the significance of structural paths using R-values, P-Values and confidence interval bias.

Figure 3: Structural Model

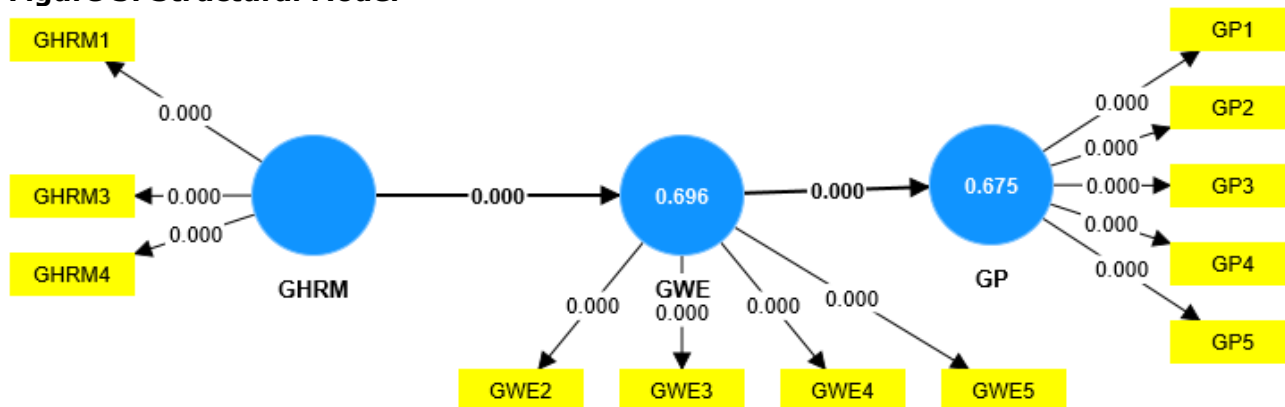


Table 5: Hypothesis Testing

Hypothesis	Relationships	Std. Beta	Std. Error	T-Value	P-Value	2.50%	97.50%	Decision
H1	GHRM -> GWE	0.834	0.031	26.891	0.000	0.768	0.889	Supported
H2	GWE -> GP	0.822	0.030	27.629	0.000	0.760	0.876	Supported

5.3.1. Mediation Analysis

Mediating hypotheses were analyzed through bootstrapping, and results showed that mediating paths were established due to significant T-value and confidence interval, as shown in Table 6.

Table 6: Mediation Analysis

Hypothesis	Relationships	Std. Beta	Std. Error	T-Value	P-Value	2.50%	97.50%	Decision
H3	GHRM -> GWE -> GP	0.686	0.041	16.656	0.000	0.603	0.764	Supported

6. Discussion

This section focuses on the findings of the entire study findings that are in line with the research goals. Human resource management in green can influence green performance by facilitating this Role of Green work engagement. This study provides new perspectives into the literature on the subject and further develops theories of social exchange by studying the mediation effect of Green work engagement on Green performance and Green HRM of workers within Pakistani higher education institutions. The present study gives a theoretical framework for studying the effects of Green human resource management and green performances by examining the mediation role of green work engagement based on the social exchange theory. The data was collected via the use of a closed-ended questionnaire and the self-administration of a survey.

H₁ suggested that the green management of human resources impacts Green work participation and results supported the H₁ hypothesis (b= 0.834 T = 26.891, p-value < 0.05). H₂ proposed that the green engagement of employees affects the performance of green employees. The results demonstrate significant effects of green work-related engagement on the efficiency of the employees' green efforts (b= 0.822 (b= 0.822, T = 27.629, p-value < 0.05), which is in line with the previous research (Aboramadan & Karatepe, 2021).

H₃ proposed that work engagement in the workplace mediates the connection between human resource management that is green as well as green performance. The results of the present study showed that work engagement with green strongly influences ($b = 0.686$ and $T = 16.656$, p -value < 0.05). So, H₃ is proven statistically valid, consistent with the previous literature (Mousa & Othman, 2020).

7. Conclusion

The present study investigates the impact the green management of human resources has on the employees' high performance on green in higher education. The data was collected via surveys using solid and reliable instruments adapted from previously published literature. The sample of respondents is comprised of students within higher educational institutions. The questionnaires were distributed through the convenience sampling method. This research employs the regression technique using the use of structural equations. This study has practical and theoretical implications through broadening theories of social exchange. Findings suggest valuable guidelines for decision-makers of higher education institutions to adopt green HR practices, particularly in countries with poorer infrastructure.

7.1. Implications

The results could assist human resource professionals in higher education institutions and academic researchers in education. Based on social exchange theories, the present study suggested practical guidelines for decision-makers to improve their behaviour in green work engagement.

The present study makes conceptual contributions by constructing an analysis framework built on the social exchange theory. The theory of Social Exchange is founded on the premise that the relationship between two individuals can be established through cost-benefit analyses. It is a method to study green HRM and the performance of employees by examining the mediation of green work that extends the social exchange theory.

7.2. Limitations and Future Research Predictions

The primary limitation of this investigation is that the study used quantitative research. However, mixed methods could be used with qualitative research and interviews. The present study only examined green engagement concerning green management of human resources and the green environment of higher education institutions. Still, it did not consider the gender-related role of green efficiency. Shortly, a multi-group analysis could be conducted concerning gender roles. Another issue is that the present study only focused on people who buy from Pakistan. Shortly an international study could be conducted.

References

- 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*, 64(7), 1204-1226. doi:<https://doi.org/10.1080/09640568.2020.1814708>
- Aboramadan, M., Albashiti, B., Alharazin, H., & Dahleez, K. A. (2020). Human resources management practices and organizational commitment in higher education: The mediating role of work engagement. *International Journal of Educational Management*, 34(1), 154-174. doi:<https://doi.org/10.1108/IJEM-04-2019-0160>
- Aboramadan, M., Hassi, A., Alharazin, H. J., Dahleez, K. A., & Albashiti, B. (2019). Volunteering drivers and continuation will: The role of engagement. *Journal of Management Development*, 38(5), 405-420. doi:<https://doi.org/10.1108/JMD-02-2019-0057>
- Aboramadan, M., & Karatepe, O. M. (2021). Green human resource management, perceived green organizational support and their effects on hotel employees' behavioral outcomes. *International Journal of Contemporary Hospitality Management*, 33(10), 3199-3222. doi:<https://doi.org/10.1108/IJCHM-12-2020-1440>
- Aftab, J., Abid, N., Cucari, N., & Savastano, M. (2023). Green human resource management and environmental performance: The role of green innovation and environmental strategy in a developing country. *Business Strategy and the Environment*, 32(4), 1782-1798. doi:<https://doi.org/10.1002/bse.3219>
- Farias, L. M. S., Santos, L. C., Gohr, C. F., de Oliveira, L. C., & da Silva Amorim, M. H. (2019). Criteria and practices for lean and green performance assessment: Systematic review and

- conceptual framework. *Journal of cleaner production*, 218, 746-762. doi:<https://doi.org/10.1016/j.jclepro.2019.02.042>
- Farooq, R., Zhang, Z., Talwar, S., & Dhir, A. (2022). Do green human resource management and self-efficacy facilitate green creativity? A study of luxury hotels and resorts. *Journal of Sustainable Tourism*, 30(4), 824-845. doi:<https://doi.org/10.1080/09669582.2021.1891239>
- Gill, A., Ahmad, B., & Kazmi, S. (2021). The effect of green human resource management on environmental performance: The mediating role of employee eco-friendly behavior. *Management Science Letters*, 11(6), 1725-1736. doi:<http://dx.doi.org/10.5267/j.msl.2021.2.010>
- Gill, A. A., Ansari, R. H., & Tufail, M. W. (2021). Going green: Theory of reasoned action application to examine the consumer intention through mediating role of green technology beliefs. *Review of Applied Management and Social Sciences*, 4(1), 63-77. doi:<https://doi.org/10.47067/ramss.v4i1.99>
- Gill, A. A., Kazmi, K. R., & Ali, B. (2021). Do good, have good: Analyzing the effect of green human resource management practices on organizational citizenship behavior towards the environment in developing economy. *Pakistan Journal of Social Research*, 3(02), 183-192.
- Hooi, L. W., Liu, M.-S., & Lin, J. J. (2022). Green human resource management and green organizational citizenship behavior: do green culture and green values matter? *International Journal of Manpower*, 43(3), 763-785. doi:<https://doi.org/10.1108/IJM-05-2020-0247>
- Karatepe, T., Ozturen, A., Karatepe, O. M., Uner, M. M., & Kim, T. T. (2022). Management commitment to the ecological environment, green work engagement and their effects on hotel employees' green work outcomes. *International Journal of Contemporary Hospitality Management*, 34(8), 3084-3112. doi:<https://doi.org/10.1108/IJCHM-10-2021-1242>
- Kodua, L. T., Xiao, Y., Adjei, N. O., Asante, D., Ofosu, B. O., & Amankona, D. (2022). Barriers to green human resources management (GHRM) implementation in developing countries. Evidence from Ghana. *Journal of cleaner production*, 340, 130671. doi:<https://doi.org/10.1016/j.jclepro.2022.130671>
- Mousa, S. K., & Othman, M. (2020). The impact of green human resource management practices on sustainable performance in healthcare organisations: A conceptual framework. *Journal of cleaner production*, 243, 118595. doi:<https://doi.org/10.1016/j.jclepro.2019.118595>
- Munawar, S., Yousaf, H. Q., Ahmed, M., & Rehman, S. (2022). Effects of green human resource management on green innovation through green human capital, environmental knowledge, and managerial environmental concern. *Journal of Hospitality and Tourism Management*, 52, 141-150. doi:<https://doi.org/10.1016/j.jhtm.2022.06.009>
- Wang, C.-H. (2019). How organizational green culture influences green performance and competitive advantage: The mediating role of green innovation. *Journal of Manufacturing Technology Management*, 30(4), 666-683. doi:<https://doi.org/10.1108/JMTM-09-2018-0314>
- Yong, J. Y., Yusliza, M. Y., Ramayah, T., Farooq, K., & Tanveer, M. I. (2022). Accentuating the interconnection between green intellectual capital, green human resource management and sustainability. *Benchmarking: An International Journal*. doi:<https://doi.org/10.1108/BIJ-11-2021-0641>