



GREEN HUMAN RESOURCES PRACTICES AND ORGANIZATIONAL SUSTAINABILITY IN SOME SELECTED MANUFACTURING COMPANIES IN PLATEAU STATE: THE ROLE OF GREEN INNOVATION.

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ABSTRACT

This study examined the effect of Green Human Resource Management (GHRM) practices, specifically Green Recruitment (GR) and Green Training and Development (GTAD), on Organizational Sustainability (OS) among manufacturing firms in Plateau State, Nigeria, with particular emphasis on the mediating role of Green Innovation (GI). Anchored on Dynamic Capabilities Theory, the study adopted a cross-sectional survey design and collected primary data from 285 management and human resource personnel across 23 manufacturing enterprises selected through stratified random sampling. The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4. The findings revealed that Green Recruitment had a significant positive effect on both Organizational Sustainability and Green Innovation. Green Training and Development had a significant positive effect on Green Innovation but did not have a significant direct effect on Organizational Sustainability. Green Innovation was also found to have a significant positive effect on Organizational Sustainability. Furthermore, Green Innovation significantly mediated the relationship between Green Recruitment and Organizational Sustainability, indicating that green recruitment contributes to sustainability both directly and through the development of green innovations. However, Green Innovation did not significantly mediate the relationship between Green Training and Development and Organizational Sustainability. The study concludes that Green Human Resource Management practices can enhance organizational sustainability, particularly when they stimulate actionable green innovation within manufacturing firms. The study contributes to the application of Dynamic Capabilities Theory by demonstrating the role of green innovation as an organizational mechanism through which selected GHRM practices can translate into sustainability outcomes. It recommends that manufacturing firms strengthen environmentally oriented recruitment practices and align green training initiatives with practical innovation activities, including sustainable product development and environmentally responsible production processes.

1.1 INTRODUCTION

Organizational sustainability has increasingly captured the interest of management scholars, particularly within the field of human resource management, owing to its strategic role in fostering sustainable organisations that support the achievement of the Sustainable Development Goals (Rahman et al., 2022). Furthermore, sustainability has become a central concern for many organisations in response to climate change, regulatory pressures, and the growing societal demand for greater environmental responsibility (Amjad et al., 2021). Today's organisations are faced with pressure to improve their environment by adopting environmentally friendly business practices, and this has led to various organisations all over the world gradually implementing sustainability initiatives in a bid to sustain the organisation as well as society (Miah et al., 2024).

Globally, many multinational corporations now align their operations with frameworks such as the Global Reporting Initiative (GRI), the United Nations Global Compact, and the Sustainable Development Goals (SDGs) (Shin et al., 2023). Companies like Unilever, Apple, and Toyota have integrated renewable energy use, carbon reduction targets, and ethical supply chain practices into their operations; despite this progress, disparities remain evident (Raihan et al., 2021). At the macro level, growing environmental concerns have increased pressure on manufacturing firms to reduce emissions, waste, energy consumption, and resource depletion (Amjad et al., 2021).

Global frameworks such as the GRI, UN Global Compact, and SDGs encourage firms to integrate environmental and social responsibility into business operations. In Nigeria, organizational sustainability remains in its formative stages (Adomako et al., 2023). While awareness has grown, practical implementation across industries is still limited. Many firms continue to prioritize short-term profitability over environmental or social concerns due to economic constraints and policy inconsistencies (Aftab et al., 2023). Within Nigeria, manufacturing activities are unevenly distributed, with major industrial hubs such as Lagos and Rivers State benefiting from larger markets, stronger infrastructure, ports, and greater concentrations of large-scale industries (Miah et al., 2024). In contrast, Plateau State has a relatively smaller industrial base characterized largely by agro-allied, food-processing, mineral-related, and mining-adjacent manufacturing activities. These firms operate within distinct environmental and institutional conditions, including infrastructure limitations, resource pressures, and inconsistent implementation of environmental policies (Abbas et al. 2022). Such differences make Plateau State an important context for examining whether Green Recruitment and Green Training and Development can build environmental capabilities, stimulate Green Innovation, and ultimately improve Organizational Sustainability among manufacturing firms.

The utilization of Green Human Resource Practices (GHRP) in the organizational process creates sustainable business strategies throughout the organization (Lu et al., 2023). Green HRP aims to design, implement, improve, and maintain a green vision within every employee of the organization (Niazi et al., 2024; Choudhary & Datta, 2022). GHRP is directly responsible for creating a green workforce that understands, appreciates, and practices green initiatives and maintains its green objectives all throughout the HRM process of recruiting, hiring, training, compensating, developing, and advancing the firm's human capital (Chowdhury et al., 2023; Raza & Khan, 2022). However, the impact of Green HRM practices on organizational sustainability does not occur automatically. Emerging evidence suggests that Green Innovation plays a mediating role in this relationship (Abbas et al 2022). It encompasses initiatives such as eco-friendly product design, waste reduction, energy-efficient processes, and recycling systems (Hao et al

2022; Yuan & Cao, 2022). Green innovation is a key driver of sustainable business practices, addressing global environmental challenges (Islam et al., 2023). It involves developing and implementing new or improved products, services, processes, or business models that minimize environmental impact while enhancing organizational performance (Arici & Uysal, 2022). Thus, green innovation can serve as a pathway through which GHRM contributes to the broader objective of organizational sustainability. The Ability-Motivation-Opportunity (AMO) framework explains how Green Recruitment and Green Training and Development build employees' environmental abilities, skills, and motivation. Complementarily, Dynamic Capabilities Theory (DCT) explains how firms integrate and reconfigure these green competencies to respond to environmental changes. Together, both theories show how GHRM builds internal capabilities that foster Green Innovation and enhance Organizational Sustainability.

1.2 PROBLEM STATEMENT

Manufacturing firms in Nigeria continue to experience environmental, social, and economic sustainability challenges arising from pollution, waste, emissions, and inefficient production practices (Bimo & Sulistyaningsih, 2024; Awan et al., 2024). Although GHRM practices such as Green Recruitment (GR) and Green Training and Development (GTAD) can enhance sustainability, existing studies provide limited explanation of how these employee-level practices translate into organizational-level sustainability outcomes. The Resource-Based View (RBV) largely emphasizes the possession of valuable resources but insufficiently explains how green human capabilities are transformed into sustainability outcomes, creating the need to examine Green Innovation (GI) as a mediating mechanism (Alenzi et al., 2023). Furthermore, previous studies have often relied on conventional regression techniques that inadequately account for measurement error and complex latent mediation relationships, justifying the application of PLS-SEM. While studies in Lagos (Adubor et al., 2022) and Rivers State (Adeniji & Nwachukwu, 2026) provide evidence of GHRM benefits, their findings may not be directly applicable to Plateau State, which has a smaller manufacturing base dominated by agro-allied, food-processing, mineral-related, and mining-adjacent activities. Therefore, theoretical, methodological, empirical, and contextual gaps remain regarding how GR and GTAD influence Organizational Sustainability through Green Innovation among manufacturing firms in Plateau State, Nigeria.

While prior African literature has documented direct linear associations between GHRM and firm performance (Adubor et al., 2022; Adeniji & Nwachukwu, 2026), these studies treat the internal conversion mechanism as a black box. A critical theoretical gap exists regarding whether human resource practices directly yield sustainability, or whether they must first manifest as tangible technological and process-based Green Innovations (GI). Furthermore, methodological limitations—such as reliance on covariance-based approaches ill-suited for predictive structural models—plague prior regional studies. This study addresses these gaps by evaluating the mediating role of GI within the sub-Saharan industrial context of Plateau State

1.3 RESEARCH QUESTIONS

1. What is the relationship between green recruitment and organizational sustainability?
2. What is the relationship between green training and development and organizational sustainability?
3. What is the relationship between green recruitment and green innovation?
4. What is the relationship between green training and development and green innovation?
5. What is the relationship between green innovation and organizational sustainability?

6. What is the mediation effect of green innovation on green recruitment and organizational sustainability?
7. What is the mediation effect of green innovation on training and development and organizational sustainability

1.4 RESEARCH OBJECTIVES

1. To examine the effect of green recruitment on organizational sustainability.
2. To examine the effect of green training and development on organizational sustainability.
3. To examine the effect of green recruitment on green innovation.
4. To examine the effect of green training and development on green innovation
5. To examine the effect of green innovation on organizational sustainability.
6. To examine the mediation effect of green innovation on green recruitment and organizational sustainability.
7. To examine the mediation effect of green innovation on green training and development and organizational sustainability

1.5 RESEARCH HYPOTHESES

H₁: There is no significant relationship between green recruitment and organizational sustainability.

H₂: There is no significant relationship between green training and development and organizational sustainability

H₃: There is no significant relationship between green recruitment and green innovation.

H₄: There is no significant relationship between green training and development and green innovation.

H₅: There is no significant relationship between green innovation and organizational sustainability.

H₆: Green innovation does not mediate the relationship between green recruitment and organizational sustainability

H₇: Green innovation does not mediate the relationship between green training and development and organizational sustainability

LITERATURE REVIEW

2.1 CONCEPTUAL REVIEW

2.1.1 Organizational Sustainability

In all organizations, sustainability has become a key concern due to changes in the environment, regulations, and pressure from society toward social and environmental responsibility (Ellili, 2024). Organizational sustainability encompasses the integration of environmental, social, and economic considerations into business operations, aiming to create long-term value for both the organization and society (Ogbeibu et al., 2024). Sustainability is the ability of an organization to operate in a manner that ensures long-term economic viability while simultaneously minimizing environmental harm and promoting social responsibility (Spangenberg, 2025). Sustainability is broadly defined as meeting present needs without compromising the ability of future generations to meet theirs. For organizations, commitment to

sustainability is vital not only to address environmental concerns but also to inspire employees to proactively face emerging challenges (Prasad, 2025). Organizational sustainability begins with the formulation of a clear vision and strategy (Balasubramanian & Balaji, 2022). Successful implementation requires changes in work processes, employee behaviour, and organizational practices (Demastus & Landrum, 2024). Human resource management plays a central role in this transformation by leveraging training, talent management, and competency development to embed sustainability into organizational culture (Nair et al., 2025).

Social sustainability encompasses both internal and external human resource issues. Internally, this includes factors such as job security, employee accommodation, health and safety, and capacity development (Ahmadi et al., 2021). The factors connected to the external population are human capital, productive capital, and social capital. Economically, it is a critical driver of corporate financial success, as organizations must continuously produce goods and services while generating profit to ensure long-term survival (Adomako et al., 2023). It involves creating income for society without depleting natural capital and resources, thereby producing a circular effect that stabilizes the economy (Pires et al., 2023). Achieving this stability requires organizations to adopt practices centered on renewability, reusability, recycling, and life-cycle costing, while also integrating the costs of waste, emissions, and pollution into their accounting systems (Kibert, 2024). Environmentally, it focuses on the impact of business activities on the natural environment, emphasizing the conservation of resources to ensure sustainable production and intergenerational equity. Businesses are expected to contribute positively to local air quality, while the regulation of water use and pollutants helps safeguard the availability of clean and healthy water (Amankwah-Amoah et al., 2020). Land and soil resources are also a priority, as both direct and indirect business impacts can threaten soil health and biodiversity.

2.1.2 Green Human Resources Practices

The term Green Human Resource Practices (Green HRM) is commonly used to describe the efforts of individuals and executives in developing strategies and practices that align with corporate ecological planning (Kodua et al., 2022). Green Human Resource Practices (Green HRM) refers to the application of HRM strategies to promote the sustainable use of resources within an organization, ultimately supporting environmental sustainability (Faeni et al., 2025). GHRP refers to strategic organizational tactics that promote green initiatives and encourage sustainability across the firm (Sapthaswaran et al., 2025). Green Human Resource Practices (GHRP) encompasses sustainable HR initiatives and practices aimed at promoting resource efficiency, reducing waste, enhancing job satisfaction, supporting work-life balance, lowering operational costs, and improving employee performance (Rana & Arya, 2024). Through strategies such as flexible work arrangements, electronic documentation, car- and job-sharing, teleconferencing, virtual recruitment, recycling initiatives, remote work, online training, and the adoption of energy-efficient office spaces, organizations can effectively minimize employees' (Chowdhury et al., 2023; Tandon et al., 2023; Niazi et al., 2024)

Mahdy et al. (2023) mentioned many advantages or benefits of Green Human Resource Management plays a crucial role in achieving broader objectives like cost savings, corporate social responsibility, talent acquisition, and competitive advantage, building a green employer image, enhancing brand reputation, serving as a marketing strategy, improving organizational quality, and strengthening relationships with stakeholders such as customers, suppliers, shareholders, employees, and government agencies. GHRP incorporates a plethora of advantages for firms, such as attracting new talent and employee retention

(Mohamed et al., 2022), cost reduction and creation of competitive edge (Gomes et al., 2023), enhancing the firm's overall productivity in the environment (Martínez-Falcó et al., 2024), enhancing overall efficiency, improving business sustainability, and enhancing overall employee well-being and productivity (Shanthi et al., 2023). GHRP is implemented through green planning, recruitment, training and development, compensation, and appraisal to support green organizational objectives (Kara & Edinsel, 2023).

2.1.2.1 Green recruitment

Anindyah & Nugroho (2023) posit that green recruitment is an innovative approach that organizations adopt to utilize their environmental consciousness as a fundamental criterion for hiring. Green recruitment involves using a paperless approach to minimize the potential ecological impact (Putri et al., 2022). Online platforms such as email, online job application forms, and a global talent pool are utilized to solicit applications. The green recruitment process involves conducting video or telephone interviews to mitigate any potential ecological impact associated with travel (Jamil et al., 2023). To meet ambitious green energy targets, organizations must strengthen their workforce by recruiting the necessary talent. In green recruitment, companies use a digital approach to reduce the use of physical documents and prioritize online interviews to reduce their carbon footprint (Ang & Mon, 2022).

2.1.2.2 Green training and development

According to Evina et al. (2024), green training can be defined as a process of on-the-job training and continued education designed to achieve corporate environmental management targets and purposes. Green training and development practices involve seminars and workshops that will enable employees to acquire requisite knowledge and skills to properly manage the environment effectively, so that they can exhibit pro-environmental behaviours and at the same time become eco-friendly (Amrutha & Geetha et al., 2021). Aspects relating to the environment, such as energy, safety, recycling, and management of wastes, should top the list in educating employees during training and development programs (Veerasamy et al., 2024). The success of acquiring green employees becomes meaningful if the organization effectively trains these employees (Palguna, 2021).

2.1.3 Green Innovation

Green innovation refers to the development and application of environmentally friendly technologies, products, and processes that reduce negative environmental impacts while promoting economic sustainability (Arici & Uysal, 2022). According to Khanra et al. (2022) & Huang et al. (2022), green innovation can be classified into three key areas: product innovation: development of sustainable products such as biodegradable packaging; process innovation: adoption of cleaner production techniques; and business model innovation: integration of sustainability into business strategies, such as carbon-neutral supply chains. Green innovation involves originality in the creation of green products or processes that can enhance an organizational environmental performance or satisfy the requirements of environmental protection. In general, firms adopt green innovations to satisfy the requirements of environmental protection goals (Luo et al., 2024). Several factors encourage the adoption of green innovation: regulatory policies: governments worldwide implement environmental regulations, such as carbon taxes and emissions limits, to encourage green innovation (Huang et al 2022); market demand: consumers are increasingly prioritizing environmentally friendly products, driving businesses to innovate sustainably (Zhou et al., 2021). According to Yin et al (2022); Vasileiou, (2023); Yuan & Cao (2022) & Wang et al (2022) the benefits of

green innovation include; environmental benefits: reduces greenhouse gas emissions, minimizes pollution, conserves natural resources, economic growth enhances efficiency, reduces production costs, and creates new market opportunities in the green economy, competitive advantage etc.

2.2 HYPOTHESIS DEVELOPMENT

2.2.1 Green recruitment and Organizational sustainability

Jamal et al. (2021), using PLS-SEM on data from 200 HR professionals, found that green recruitment and selection, green pay and rewards, and green employee involvement significantly enhanced corporate sustainability. Similarly, Haldorai et al. (2022), in a longitudinal study of 800 hotel employees in Manila, established that top management green commitment and green intellectual capital positively influenced GHRM practices and environmental performance, with GHRM playing a significant mediating role. Collectively, these studies demonstrate that GHRM practices serve as important mechanisms through which organizational resources and environmental commitments are translated into improved sustainability outcomes.

Based on the above discussion it was hypothesized that;

H₁; There is no significant relationship between green recruitment and organizational sustainability.

2.2.2 Green training and development and Organizational sustainability

Moradeke et al. (2021), using data from 175 employees of WAMCO Nigeria Plc., found that green training and development significantly enhanced employees' environmental awareness, green knowledge, and commitment to environmental sustainability. Similarly, Amjad et al. (2021), based on 165 managers in Pakistan's textile industry, established that GHRM practices, particularly training and development, performance appraisal, and reward and compensation, significantly improved Organizational Sustainability through employee and environmental performance. Collectively, these findings demonstrate that green training and other GHRM practices strengthen employees' environmental capabilities and contribute positively to organizational sustainability.

Based on the above discussion it was hypothesized that:

H₂; There is no significant relationship between green training and development and organizational sustainability.

2.2.3 Green recruitment and green innovation

Islam et al. (2022) examined 500 employees in Pakistan's chemical industry using PLS-SEM and found that green recruitment significantly enhanced environmental performance, with green innovation mediating the relationship. Similarly, Shah and Soomro (2023), using data from 400 employees in Pakistan's automobile industry, found that green HRM practices, including green recruitment and selection, training and development, employee involvement, compensation, and performance management, significantly promoted green behaviours and green innovation. Collectively, these studies demonstrate that GHRM practices strengthen environmental outcomes by fostering employees' green behaviours and innovative capabilities. Hence this study hypothesized:

H₃; There is no significant relationship between green recruitment and green innovation.

2.2.4 Green training and green innovation

Khan et al. (2025) examined GHRM practices among employees of SMEs in Pakistan and found that green HR practices enhance employee motivation, training, and overall efficiency. Similarly, Kuo et al. (2022), using data from 300 organizations, found that green recruitment, training, and performance management significantly promoted employees' eco-friendly behaviours and Green Innovation, thereby improving environmental sustainability. Collectively, the studies demonstrate that GHRM develops employees' green capabilities and behaviours, which contribute to organizational efficiency, innovation, and sustainability.

Based on these discussions and findings, this study hypothesizes that;

H₄: There is no relationship between green training and development and green innovation.

2.2.5 Green innovation and Organizational sustainability

Nazari (2023), using SmartPLS on data from 80 employees of a cement company, found that Green Innovation significantly improved organizational and environmental performance, while product and process innovation positively influenced Green Innovation. The study further established that HR practices moderated the relationship between Green Innovation and performance. Similarly, Famiyeh et al. (2022), using PLS-SEM on data from 164 respondents across different industries, found that environmental management practices directly and indirectly enhanced environmental and operational performance through reduced costs, improved quality, flexibility, and delivery. Collectively, these studies demonstrate the importance of Green Innovation and environmentally responsible organizational practices in improving sustainability and organizational performance.

H₅: There is no relationship between green innovation and organizational sustainability.

2.2.6 Green innovation as a mediator

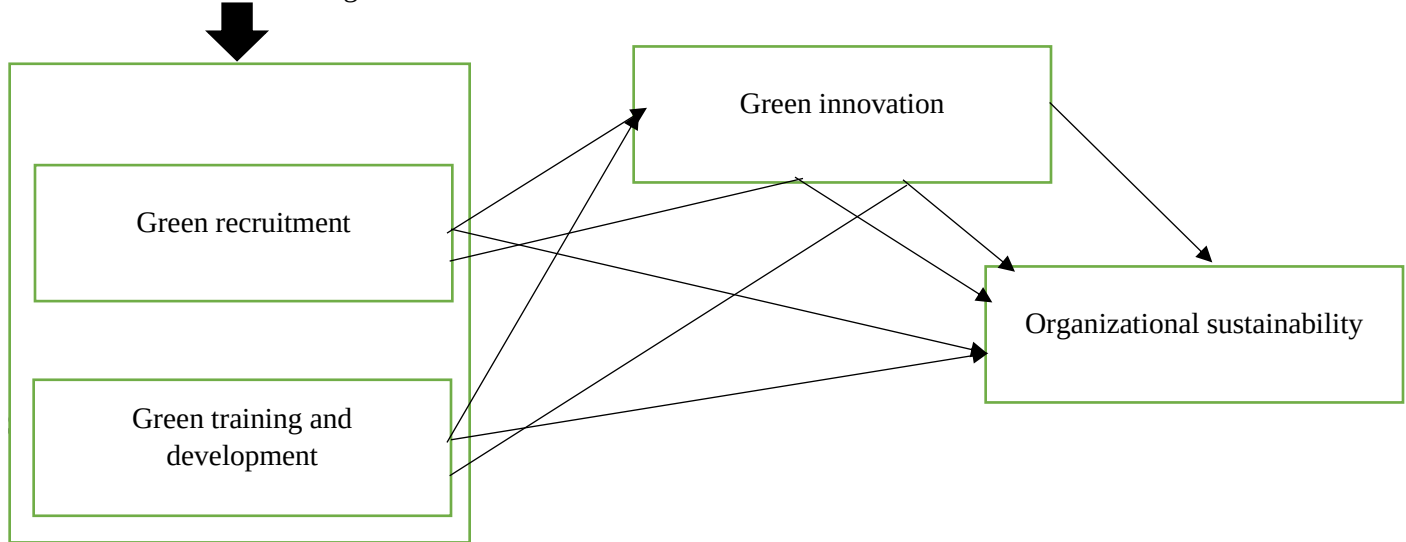
Both Aftab et al. (2023) and Nazari et al. (2023) found that while green recruitment contributes positively to organizational sustainability, the mechanism through green innovation was not sufficiently strong to produce a significant mediating effect. These findings suggest that organizations may achieve sustainability gains directly through environmentally conscious recruitment practices without necessarily relying on green innovation as an intervening variable. Makumbe (2024) found that green innovation only partially mediated the relationship between GHRM and green performance, indicating that green HR practices may improve organizational outcomes through mechanisms other than innovation. Similarly, Shahzad et al. (2025) found that green training and development required other organizational mechanisms, such as green performance management, to effectively translate into green innovation. Gazi et al. (2025) further showed that employee training does not automatically produce green innovation, as the conversion of acquired knowledge into innovation depends on supportive organizational conditions. Therefore;

H₆: Green innovation does not mediate the relationship between Green Recruitment and organizational sustainability.

H₇: Green innovation does not mediate the relationship between Green Training and Development and organizational sustainability

2.3 CONCEPTUAL FRAMEWORK

Green human resource management



The diagram above shows the relationship between the study variables. Green human resource management, as the independent variable, is divided into green recruitment and green training and development. The dependent variable is organizational sustainability, while green innovation is the mediating variable.

2.4 THEORETICAL REVIEW

2.4.1 Dynamic Capability Theory (DCT)

The dynamic capability theory (DCT) was propounded by Teece, Pisano & Shuen (1997). At its core, the theory assumes that change is constant, resources must be renewed, and managers play an active role in shaping how organizations adapt to emerging challenges. It also assumes that learning and innovation are critical drivers of organizational resilience and sustainability. In relation to this study, the dynamic capability theory provides a particularly useful framework. Green HR practices, such as eco-conscious recruitment, employee training, and environmentally aligned performance evaluation, can be understood as resources that contribute to organizational sustainability. However, for these practices to achieve meaningful outcomes, they must be dynamic rather than static. Here, green innovation plays a mediating role by acting as the dynamic capability that connects HR practices to sustainability. In this sense, dynamic capability theory explains how organizations can use green HR initiatives, mediated by innovation, to achieve long-term sustainability rather than mere compliance with environmental standards. However, while DCT provides a macro-level explanation of organizational capability development, it offers limited explanation of how individual employees acquire and apply the competencies that underpin such capabilities. Therefore, this study complements DCT with the Ability-Motivation-Opportunity (AMO) framework of Appelbaum et al. (2000) as its micro-level foundation.

2.4.2 Ability-Motivation-Opportunity (AMO)

The Ability-Motivation-Opportunity (AMO) framework assumes that organizational performance depends on employees having the necessary abilities, motivation, and opportunities to contribute effectively (Appelbaum et al., 2000). First, employees require relevant knowledge, skills, and competencies, which can be developed through recruitment and training practices. Second, employees must be motivated to apply these capabilities toward organizational objectives. Third, organizations must provide opportunities for employees to participate, contribute ideas, and apply their competencies in the workplace. In the context of this study, Green Recruitment helps attract employees with appropriate environmental values and abilities, while Green Training and Development strengthens their environmental knowledge and skills. When employees are motivated and provided opportunities to apply these green capabilities, they are more likely to engage in Green Innovation, thereby contributing to Organizational Sustainability. The AMO framework explains how Green Recruitment enables firms to attract employees with appropriate environmental abilities and values, while Green Training and Development strengthens the knowledge and skills required for environmentally responsible and innovative behaviour. DCT subsequently explains how these employee-level green capabilities are integrated and reconfigured into organizational capabilities. Within this process, Green Innovation serves as the mediating mechanism through which the capabilities generated by GHRM practices are transformed into improved Organizational Sustainability. Thus, AMO explains the micro-foundations of green employee capabilities, while DCT explains their conversion into organizational-level innovation and sustainability outcomes.

3.1 RESEARCH METHOD

This study adopted an explanatory research design using a quantitative cross-sectional survey approach because the study seeks to examine a cause-and-effect relationship among the study variables, especially within the context of the Nigerian manufacturing sector.

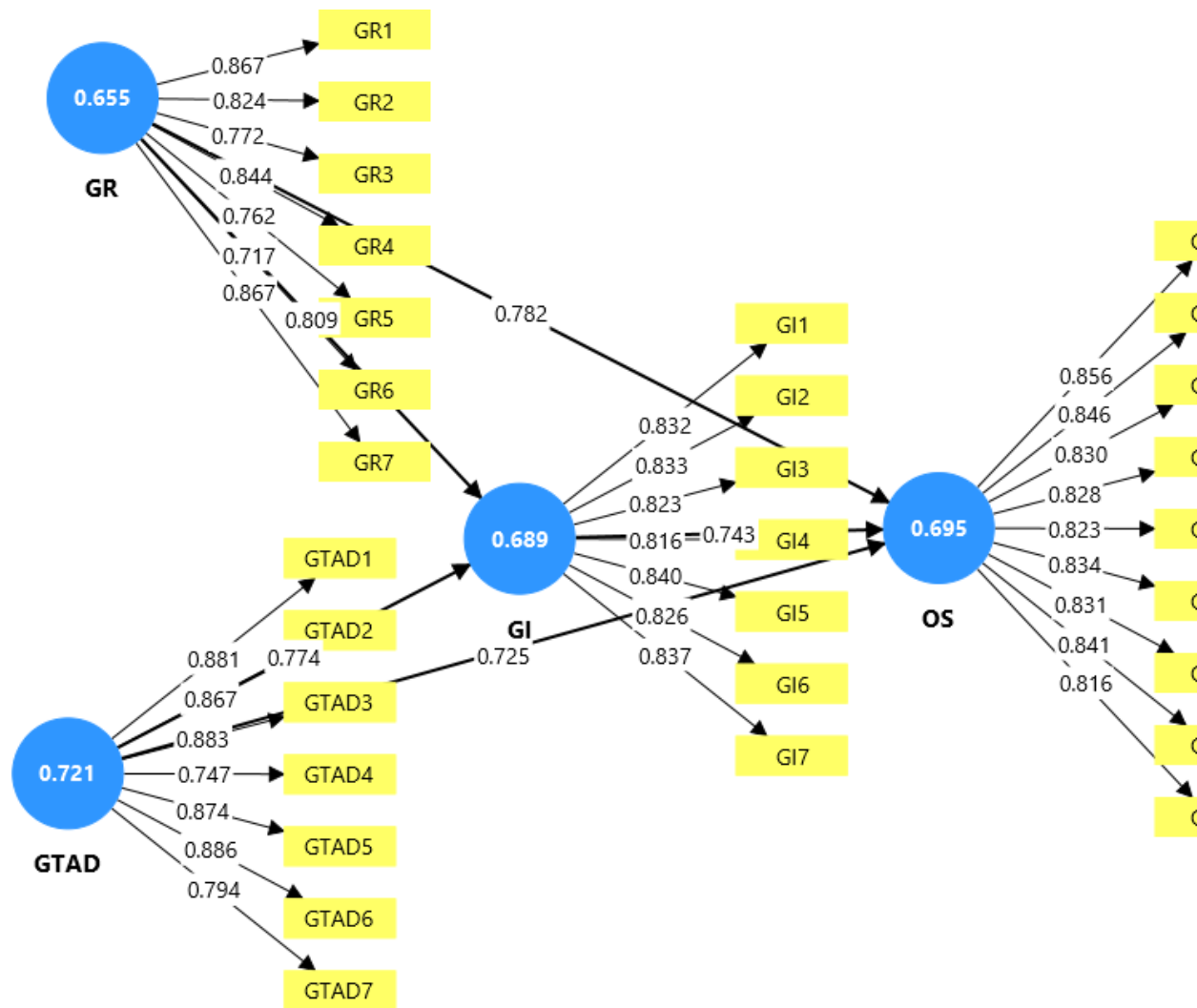
Sampling

The population of the study comprised 1,463 employees drawn from 23 selected manufacturing firms in Plateau State, Nigeria (Manufacturers Association of Nigeria, Plateau State Chapter, 2025). Employees constituted the respondents because the study assesses their perceptions of Green Recruitment, Green Training and Development, Green Innovation, and Organizational Sustainability within their respective firms. Thus, while data were collected at the individual employee level, the organizational constructs were assessed through employees' perceptions of practices and outcomes within their organizations. Using the Yamane (1967) formula, an appropriate sample size was determined from the study population. A structured questionnaire was used for data collection, with responses measured on a five-point Likert scale ranging from Strongly Agree (5) to Strongly Disagree (1). The questionnaire items were adopted and adapted from Pham et al. (2023), Tang et al. (2018), Raihan (2024), Chaban et al. (2024), Wu and Zhi (2016), and Perdana et al. (2018). A total of 314 questionnaires were distributed to employees across the selected manufacturing firms, of which 285 were correctly completed and found suitable for analysis, representing a response rate of approximately 90.8%. The data were subsequently analysed using Partial Least Squares Structural Equation Modelling (PLS-SEM) through SmartPLS.

4.1 RESULTS

Measurement Model Assessment

The measurement model was assessed using indicator reliability, internal consistency reliability, and convergent validity.



Structural Model (inner model)

	VIF
GI -> OS	2.932
GR -> GI	1.493
GR -> OS	1.522
GTAD -> GI	2.193
GTAD -> OS	2.906

VIF			
Predictor Construct	Dependent Construct	Structural Path	Inner VIF
Green Innovation (GI)	Organizational Sustainability (OS)	GI → OS	2.932
Green Recruitment (GR)	Green Innovation (GI)	GR → GI	1.493
Green Recruitment (GR)	Organizational Sustainability (OS)	GR → OS	1.522
Green Training and Development (GTAD)	Green Innovation (GI)	GTAD → GI	2.193
Green Training and Development (GTAD)	Organizational Sustainability (OS)	GTAD → OS	2.906

As shown in the Table above, the structural model was assessed for collinearity using the Variance Inflation Factor (VIF). The results showed that the inner VIF values ranged from 1.493 to 2.932. Specifically, GI → OS recorded a VIF of 2.932, GR → GI was 1.493, GR → OS was 1.522, GTAD → GI was 2.193, while GTAD → OS recorded 2.906. All the VIF values were below the recommended threshold of 5.0 and also below the more conservative threshold of 3.3, indicating that there was no critical multicollinearity problem among the predictor constructs. Therefore, Green Recruitment, Green Training and Development, and Green Innovation can be retained in the structural model for the assessment of their respective effects on Green Innovation and Organizational Sustainability.

Construct	Indicators and Outer Loadings	Cronbach's α	rho_a	rho_c	AVE	Decision
GI	GI1=.832; GI2=.833; GI3=.823; GI4=.816; GI5=.840; GI6=.826; GI7=.837	.925	.925	.939	.689	Reliable & valid
GR	GR1=.867; GR2=.824; GR3=.772; GR4=.844; GR5=.762; GR6=.717; GR7=.867	.911	.914	.930	.655	Reliable & valid
GTAD	GTAD1=.881; GTAD2=.867; GTAD3=.883; GTAD4=.747; GTAD5=.874; GTAD6=.886; GTAD7=.794	.935	.938	.947	.721	Reliable & valid
OS	OS1=.856; OS2=.846; OS3=.830;	.945	.945	.954	.695	Reliable & valid

Construct	Indicators and Outer Loadings	Cronbach's α	ρ_a	ρ_c	AVE	Decision
	OS4=.828; OS5=.823; OS6=.834; OS7=.831; OS8=.841; OS9=.816					
Criterion	$\geq .708$	$\geq .70$	$\geq .70$	$\geq .70$	$\geq .50$	—

Indicator Reliability and Convergent Validity

Indicator reliability was assessed using the outer loadings of the measurement items, with a loading of 0.708 or higher adopted as the criterion for satisfactory indicator reliability. The results show that all indicators met this criterion. Specifically, the outer loadings for Green Innovation (GI) ranged from 0.816 to 0.840, Green Recruitment (GR) ranged from 0.717 to 0.867, Green Training and Development (GTAD) ranged from 0.747 to 0.886, while Organizational Sustainability (OS) ranged from 0.816 to 0.856. The lowest outer loading was 0.717 for GR6, which remained above the adopted threshold of 0.708. Thus, all indicators demonstrated satisfactory indicator reliability and were retained in the measurement model.

Internal consistency reliability was assessed using Cronbach's alpha, composite reliability (ρ_a), and composite reliability (ρ_c), with 0.70 adopted as the minimum acceptable threshold. Cronbach's alpha values ranged from 0.911 to 0.945, ρ_a values ranged from 0.914 to 0.945, and ρ_c values ranged from 0.930 to 0.954. Since all values exceeded 0.70, the constructs demonstrated satisfactory internal consistency reliability.

Convergent validity was assessed using the Average Variance Extracted (AVE), with an AVE value of 0.50 or above considered acceptable. The AVE values were 0.689 for GI, 0.655 for GR, 0.721 for GTAD, and 0.695 for OS. All the AVE values exceeded the minimum threshold of 0.50, indicating that each construct explained more than 50% of the variance in its respective indicators. Therefore, convergent validity was established for all four constructs.

Overall, the satisfactory outer loadings, internal consistency reliability coefficients, and AVE values provide evidence that the measurement model achieved adequate indicator reliability, construct reliability, and convergent validity.

Discriminant Validity (HTMT Criterion)

	GI	GR	GTAD	OS
GI				
GR	0.878			
GTAD	0.831	0.793		
OS	0.794	0.836	0.769	

Discriminant validity was assessed using the Heterotrait–Monotrait Ratio (HTMT) criterion. This study adopted the 0.90 threshold, such that HTMT values below 0.90 indicate that the constructs are empirically distinct and that discriminant validity has been established, whereas values of 0.90 or above indicate a

potential discriminant validity problem. The results show that all the HTMT values were below the adopted threshold of 0.90. Specifically, the HTMT values were 0.878 for GR–GI, 0.831 for GTAD–GI, 0.793 for GTAD–GR, 0.794 for OS–GI, 0.836 for OS–GR, and 0.769 for OS–GTAD. The values therefore ranged from 0.769 to 0.878. The highest value of 0.878, observed between Green Recruitment (GR) and Green Innovation (GI), remained below the adopted 0.90 threshold. Consequently, all construct pairs satisfied the HTMT criterion, indicating that the constructs were sufficiently distinct from one another. Therefore, discriminant validity was established for the measurement model.

4.2 HYPOTHESIS TESTING

Hyp.	Hypothesized Relationship	β	t-value	p-value	Decision
H1	GR $\rightarrow$ OS	0.557	5.173	<0.001	Reject H_0
H2	GTAD $\rightarrow$ OS	-0.041	0.381	0.703	Fail to reject H_0
H3	GR $\rightarrow$ GI	0.638	7.240	<0.001	Reject H_0
H4	GTAD $\rightarrow$ GI	0.185	2.048	0.041	Reject H_0
H5	GI $\rightarrow$ OS	0.325	5.575	<0.001	Reject H_0
H6	GR $\rightarrow$ GI $\rightarrow$ OS	0.207	4.418	<0.001	Reject H_0
H7	GTAD $\rightarrow$ GI $\rightarrow$ OS	0.060	1.897	0.058	Fail to reject H_0

Hypothesis One: There is no significant relationship between green recruitment and organizational sustainability.

GR $\rightarrow$ OS is positive and significant ($\beta = .557$, $p < .001$). Therefore, the null hypothesis stating that there is no significant relationship between Green Recruitment and Organizational Sustainability is **rejected**.

Hypothesis Two: There is no significant relationship between green training and development and organizational sustainability

GTAD $\rightarrow$ OS is negative and non-significant ($\beta = -.041$, $p = .703$). Therefore, the null hypothesis is **not rejected**.

Hypothesis Three: There is no significant relationship between green recruitment and green innovation.

GR $\rightarrow$ GI is positive and significant ($\beta = .638$, $p < .001$). Therefore, the null hypothesis is rejected.

Hypothesis Four: There is no relationship between green training and development and green innovation.

GTAD $\rightarrow$ GI is positive and significant ($\beta = .185$, $p = .041$). Therefore, the null hypothesis is **rejected**.

Hypothesis Five: There is no relationship between green innovation and organizational sustainability.

GI $\rightarrow$ OS is positive and significant ($\beta = .325$, $p < .001$). Therefore, the null hypothesis is **rejected**.

Hypothesis Six: Green innovation does not mediate the relationship between green recruitment and organizational sustainability.

GR → GI → OS effect is significant ($\beta = .207$, $p < .001$). Therefore, the null hypothesis of no mediation is rejected. GI partially mediates the relationship.

Hypothesis Seven: Green innovation does not mediate the relationship between green training and development and organizational sustainability

GTAD → GI → OS effect is not significant ($\beta = .060$, $p = .058$). Therefore, fail to reject the null hypothesis of no mediation

4.3 DISCUSSION OF FINDINGS

The study revealed that Green Recruitment (GR) had a significant positive effect on Organizational Sustainability (OS), indicating that recruiting employees with environmental values, awareness, and competencies contributes to achieving sustainability objectives. This finding agrees with Haldorai et al. (2022) and Jamil et al. (2023), who established that environmentally oriented recruitment supports organizational sustainability and environmental performance. In contrast, Green Training and Development (GTAD) had a negative and statistically non-significant direct effect on OS. This suggests that providing employees with environmental knowledge and skills through training may not automatically improve sustainability unless employees have adequate resources and opportunities to apply what they have learned. This finding is consistent with Veerasamy et al. (2024), who argued that green training alone may be insufficient to directly improve organizational sustainability.

Green Recruitment was also found to have a significant positive effect on Green Innovation (GI). This implies that attracting environmentally conscious and competent employees enhances the organization's ability to generate environmentally friendly ideas, products, and processes. The finding supports Islam et al. (2022), who established that green recruitment promotes Green Innovation by bringing employees with relevant environmental competencies into organizations. Similarly, GTAD had a significant positive effect on GI, demonstrating that environmental training develops employees' knowledge and capabilities to identify environmental problems and generate innovative solutions. This finding agrees with Amjad et al. (2021), who reported that green training strengthens employees' environmental capabilities and innovative behaviour. The significant GTAD–GI relationship, despite the non-significant GTAD–OS relationship, suggests that training may contribute more strongly to innovation than directly to sustainability.

Furthermore, Green Innovation had a significant positive effect on Organizational Sustainability. This indicates that environmentally friendly products, processes, technologies, and practices can improve environmental, economic, and social sustainability. This finding is consistent with Nazari (2023) and Wang et al. (2021), who established that Green Innovation contributes to environmental performance, resource efficiency, and organizational sustainability. The mediation analysis revealed that GI partially mediated the relationship between GR and OS. Thus, Green Recruitment improves sustainability directly and also indirectly by strengthening Green Innovation. This finding aligns with Fang et al. (2022), who

emphasized the role of environmentally conscious employees in generating innovative solutions that support sustainability.

Finally, the indirect effect of GTAD on OS through GI was positive but statistically non-significant, revealing no relationship. This indicates that although green training enhances Green Innovation, the resulting innovation may not be sufficiently implemented to produce significant sustainability outcomes. This supports Jasim & Altaee (2023) and suggests a possible gap between acquiring green knowledge, generating innovative ideas, and translating those ideas into practical sustainability outcomes.

5.1 CONCLUSION

The study concludes that Green Human Resource Management practices contribute to Organizational Sustainability, particularly through Green Innovation. Green Recruitment directly enhances sustainability and promotes Green Innovation, while Green Training and Development primarily strengthens Green Innovation rather than directly improving sustainability. Thus, Green Innovation serves as an important mechanism for translating green HR practices into sustainable outcomes. The findings also support Dynamic Capabilities Theory by demonstrating that organizations can renew and transform their human resources through innovation to respond to environmental changes and achieve long-term sustainability.

5.2 RECOMMENDATIONS

Based on the findings of this study, the following recommendations are made:

1. Manufacturing firms should integrate environmental sustainability criteria into recruitment to attract employees with green values and competencies.
2. Green training should address practical sustainability issues such as waste reduction, energy conservation, and efficient resource use.
3. Firms should create formal systems that encourage employees to generate and implement environmentally friendly ideas and processes.
4. Management should increase investment in Green Innovation to enhance Organizational Sustainability and long-term competitiveness.
5. GHRM practices should be integrated with Green Innovation strategies rather than implemented independently.
6. Firms should establish green innovation teams, suggestion schemes, and sustainability projects that enable employees to develop and implement green ideas.
7. Green training should be supported with practical projects, adequate resources, supervision, and incentives to translate acquired knowledge into sustainable workplace practices.

5.3 CONTRIBUTION TO KNOWLEDGE

Theoretical Contribution: The study integrates the AMO framework and Dynamic Capabilities Theory (DCT) to explain how GHRM practices develop green employee capabilities that are transformed through Green Innovation into Organizational Sustainability.

Empirical Contribution: The study provides evidence from manufacturing firms in Plateau State that Green Recruitment and Green Training and Development promote Green Innovation, while Green Innovation contributes significantly to Organizational Sustainability.

Methodological Contribution: The study applies PLS-SEM to simultaneously assess direct and mediating relationships among GHRM practices, Green Innovation, and Organizational Sustainability while accounting for the measurement of latent constructs and illustrating the critical importance of diagnostic checks for lateral collinearity.

5.4 LIMITATIONS AND DIRECTIONS

This study is subject to several limitations that should be considered. First, the study employed a cross-sectional research design, whereby data were collected from respondents at a single point in time. Consequently, the study was unable to capture changes in Green Human Resource Management practices, Green Innovation, and Organizational Sustainability over time, thereby limiting the ability to establish definitive causal relationships among the variables. Future studies should consider adopting a longitudinal research design to examine the relationships among Green Human Resource Management practices, Green Innovation, and Organizational Sustainability over an extended period. Also, the study focused on selected organizations within a specific geographical and industrial context, which may limit the generalizability of the findings to other sectors, regions, or countries with different environmental and organizational characteristics. Future studies should be replicated across different industries, regions, and countries to enhance the generalizability of the findings and facilitate cross-cultural comparisons.

REFERENCES

- Abbas, J., & Khan, S. M. (2023). Green knowledge management and organizational green culture: an interaction for organizational green innovation and green performance. *Journal of Knowledge Management*, 27(7), 1852-1870.
- Adeniji, A. A., & Nwachukwu, S. C. (2026). Green Recruitment and Selection as a Strategic Driver of Task Performance in Manufacturing Firms: Evidence from Rivers State of Nigeria. *African Banking and Finance Review Journal*, 21(8), 172-190.
- Adomako, S., Amankwah-Amoah, J., Danso, A., Konadu, R., & Owusu-Agyei, S. (2023). Environmental sustainability orientation and performance of family and nonfamily firms. *Business Strategy and the Environment*, 28(6), 1250-1259.
- Adubor, N. V., Adeniji, A. A., Salau, O. P., Olajugba, O. J., & Onibudo, G. O. (2022). Exploring green human resource adoption and corporate sustainability in Nigerian manufacturing industry. *Sustainability*, 14(19), 12635.

- Aftab, J., Abid, N., Cucari, N., & Savastano, M. (2023). Green Human Resource Practices and environmental performance: The role of green innovation and environmental strategy in a developing country. *Business Strategy and the Environment*, 32(4), 1782-1798.
- Ahmadi, H., Hashemi Petrudi, S. H., & Wang, X. (2021). Integrating sustainability into supplier selection with analytical hierarchy process and improved grey relational analysis: a case of telecom industry. *The International Journal of Advanced Manufacturing Technology*, 90, (1) 2413-2427.
- Alenzi, M. A., Jaaffar, A. H., & Khudari, M. O. H. A. M. M. A. D. (2022). The mediating effect of organisational sustainability and employee behaviour on the Relationship between GHRP and sustainable performance in Qatar. *WSEAS Transactions on Business and Economics*, 19, (1)1430-1442.
- Amankwah-Amoah, J., Danso, A., & Adomako, S. (2020). Entrepreneurial orientation, environmental sustainability and new venture performance: Does stakeholder integration matter? *Business Strategy and the Environment*, 28(1), 79-87.
- Amjad, F., Abbas, W., Zia-Ur-Rehman, M., Baig, S. A., Hashim, M., Khan, A., & Rehman, H. U. (2021). Effect of Green Human Resource Practices on organizational sustainability: the mediating role of environmental and employee performance. *Environmental Science and Pollution Research*, 28, (1) 28191-28206.
- Amrutha, V. N., & Geetha, S. N. (2021). Linking organizational green training and voluntary workplace green behaviour: Mediating role of green supporting climate and employees' green satisfaction. *Journal of Cleaner Production*, 290, 125876.
- Ang, P., & Mon, M. D. (2022). Pengaruh Green Intellectual Capital, Green Training, Green Recruitment and Selection dalam Konsep Paperless terhadap Sustainable Performance pada Bank BPR Kota Batam. *eCo-Buss*, 4(3), 462-478.
- Anindyah, A. M., & Nugroho, S. P. (2023). Pengaruh Green Recruitment dan Green Training terhadap kinerja karyawan menggunakan organizational citizenship behaviour environment sebagai variabel mediasi pada perusahaan telekomunikasi di Surakarta. *Jurnal Bisnis Dan Manajemen*, 3(5), 1097-1108.
- Arici, H. E., & Uysal, M. (2022). Leadership, green innovation, and green creativity: A systematic review. *The Service Industries Journal*, 42(5-6), 280-320.
- Awan, F. H., Dunnan, L., Jamil, K., & Gul, R. F. (2023). Stimulating environmental performance via Green Human Resource Practices, green transformational leadership, and green innovation: a mediation-moderation model. *Environmental Science and Pollution Research*, 30(2), 2958- 2976.
- Balasubramanian, N., & Balaji, M. (2022). Organisational sustainability scale: measuring employees' perception on sustainability of organisation. *Measuring Business Excellence*, 26(3), 245-262.

- Bimo, I. D., & Sulistyaningsih, E. (2024). Greening the workforce: a systematic literature review of determinants in green HRM. *Cogent Business & Management*, 11(1), 2429793.
- Chaban, Y. V., Vosschenrich, J., McKee, H., Gunasekaran, S., Brown, M. J., Atalay, M. K., ... & Hanneman, K. (2024). Environmental sustainability and MRI: challenges, opportunities, and a call for action. *Journal of Magnetic Resonance Imaging*, 59(4), 1149-1167.
- Choudhary, P., & Datta, A. (2022). The significance of GHRP in fostering hospitality employees' green creativity: A systematic literature review with bibliometric analysis. *Journal of Information and Optimization Sciences*, 43(7), 1709-1720.
- Chowdhury, S. R., Mendy, J., & Rahman, M. (2023). A systematic literature review of GHRP: organizational sustainable performance reimagined using a new holistic framework. *Sustainability*, 15(9), 7513.
- Demastus, J., & Landrum, N. E. (2024). Organizational sustainability schemes align with weak sustainability. *Business Strategy and the Environment*, 33(2), 707-725.
- Ellili, N. O. D. (2024). Bibliometric analysis of sustainability papers: Evidence from Environment, Development and Sustainability. *Environment, development and sustainability*, 26(4), 8183-8209.
- Evina, E., Saputra, A. R. P., & Nuvriasari, A. (2024). Green training, green recruitment, and green transformational leadership on employee performance in retail store. *International Journal of Management, Knowledge and Learning*, 13, 13-27.
- Faeni, D. P., Oktaviani, R. F., Riyadh, H. A., Faeni, R. P., & Beshr, B. A. H. (2025). Green Human Resource Practices (GHRP) and corporate social responsibility (CSR) in reducing carbon emissions for sustainable practices. *Environmental Quality Management*, 34(3), e70048.
- Famiyeh, S., Adaku, E., Amoako-Gyampah, K., Asante-Darko, D., & Amoatey, C. T. (2022). Environmental management practices, operational competitiveness and environmental performance: Empirical evidence from a developing country. *Journal of Manufacturing Technology Management*, 29(3), 588-607.
- Fang, L., Shi, S., Gao, J., & Li, X. (2022). The mediating role of green innovation and green culture in the relationship between Green Human Resource Practices and environmental performance. *Plos one*, 17(9), e0274820.
- Gazi, M. A. I., Masud, A. A., Emon, M., Ibrahim, M., & Senathirajah, A. R. B. S. (2025). The triadic relationship between green HRM, innovation, and pro-environmental behaviour: a study of their interactions and impacts on employee productivity and organizational sustainability. *Environmental Research Communications*, 7(1), 015016.
- Gomes, D., Ribeiro, N., Gomes, G., Ortega, E., & Santos, E. (2023, July). Should we go "green", or should we deal with it as a trend that is going to pass? Evaluating the benefits of Green Human

- Resources Management (GHRP) on workers' attitudes and behaviour. In *Conferência-Investigação e Intervenção em Recursos Humanos* (No. 11).
- Haldorai, K., Kim, W. G., & Garcia, R. F. (2022). Top management green commitment and green intellectual capital as enablers of hotel environmental performance: The mediating role of Green Human Resource Practices. *Tourism Management*, 88, 104431.
- Hao, X., Chen, F., & Chen, Z. (2022). Does green innovation increase enterprise value?. *Business strategy and the environment*, 31(3), 1232-1247.
- Huang, Y., Chen, C., Lei, L., & Zhang, Y. (2022). Impacts of green finance on green innovation: a spatial and nonlinear perspective. *Journal of Cleaner Production*, 365, 132548.
- Islam, M. A., Mendy, J., Haque, A. A., & Rahman, M. (2022). Green Human Resource Practices and millennial employees' retention in small and medium enterprises: The moderating impact of creativity climate from a developing country perspective. *Business Strategy & Development*, 5(4), 335-349.
- Jamal, T., Zahid, M., Martins, J. M., Mata, M. N., Rahman, H. U., & Mata, P. N. (2021). Perceived Green Human Resource Practices and corporate sustainability: Multigroup analysis and major industries perspectives. *Sustainable Development*, 13(6), 3045.
- Jamil, S., Zaman, S. I., Kayikci, Y., & Khan, S. A. (2023). The role of green recruitment on organizational sustainability performance: A study within the context of Green Human Resource Practices. *Sustainable Development*, 15(21), 15567.
- Jasim, W. T., & Altaee, A. H. (2023). The effect of green training and development on sustainable performance: An analytical research in the Ministry of Environment. *Journal of Economics and Administrative Sciences*, 29(138), 1-21.
- Kanan, M., Taha, B., Saleh, Y., Alsayed, M., Assaf, R., Ben Hassen, M., ... & Tunsu, W. (2023). Green innovation as a mediator between Green Human Resource Practices and sustainable performance in Palestinian manufacturing industries. *Sustainable Development*, 15(2), 1077.
- Kara, K., & Edinsel, S. (2023). The mediating role of green product innovation (GPI) between green human resources management (GHRP) and green supply chain management (GSCM): evidence from automotive industry companies in Turkey. In *Supply Chain Forum: An international journal* (Vol. 24, No. 4, pp. 488-509). Taylor & Francis.
- Khan, K., Gogia, E. H., Shao, Z., Rehman, M. Z., & Ullah, A. (2025). The impact of green HRM practices on green innovative work behaviour: empirical evidence from the hospitality sector of China and Pakistan. *BMC psychology*, 13(1), 96.
- Kibert, C. J. (2024). *Sustainable construction: Green building design and delivery*. New Jersey: Wiley.

- Kodua, L. T., Xiao, Y., Adjei, N. O., Asante, D., Ofori, B. O., & Amankona, D. (2022). Barriers to green human resources management (GHRP) implementation in developing countries. Evidence from Ghana. *Journal of Cleaner Production*, 340, 130671.
- Kuo, Y. K., Khan, T. I., Islam, S. U., Abdullah, F. Z., Pradana, M., & Kaewsaeng-On, R. (2022). Impact of green HRM practices on environmental performance: The mediating role of green innovation. *Frontiers in Psychology*, 13, 916723.
- Lu, H., Cai, S., Liu, Y., & Chen, H. (2023). How GHRP impacts employee OCBE: the role of emotions and value discrepancy. *International Journal of Manpower*, 44(2), 318-333.
- Luo, G., Zhu, G., & Guo, Y. (2024). How to motivate employee green behaviour in the Chinese context: a configurational study integrating the AMO framework with regulatory focus theory. *Asia Pacific Journal of Management*, 1-30.
- Mahdy, F., Alqahtani, M., & Binzafrh, F. (2023). Imperatives, benefits, and initiatives of Green Human Resource Practices (GHRP): A systematic literature review. *Sustainability*, 15(6), 4866.
- Makumbe, W. (2024). Green human resources management and green performance: A mediation–moderation mechanism for green innovation and green knowledge sharing. *Sustainability*, 16(24), 10849.
- Martínez-Falcó, J., Sánchez-García, E., Marco-Lajara, B., & Millán-Tudela, L. A. (2024). Green Human Resource Practices: Fostering Employee Wellbeing and Environmental Performance in the Wine Industry. In *Green Supply Chain Management Practice and Principles* (pp. 66-83). IGI Global.
- Miah, M., Szabó-Szentgróti, G., & Walter, V. (2024). A systematic literature review on green human resource management (GHRP): an organizational sustainability perspective. *Cogent Business & Management*, 11(1), 2371983.
- Mohamed, E. M. M., Helmy, N. M., & Fawi, W. M. (2022). Adoption of green human resources management practices by hotels in Egypt: Drivers, perceived benefits and challenges. *International Journal of Tourism and Hospitality Management*, 5(2), 155-186.
- Moradeke, F. T., Ishola, G. K., & Okikiola, O. L. (2021). Green training and development practices on environmental sustainability: Evidence from WAMCO PLC. *Journal of Educational Management and Social Sciences*, 2(1), 1-19.
- Nair, A., Manohar, S., & Mittal, A. (2025). AI-enabled FinTech for innovative sustainability: promoting organizational sustainability practices in digital accounting and finance. *International Journal of Accounting & Information Management*, 33(2), 287-312.

- Nazari, K. (2023). Explaining the Role of Green Innovation on Environmental and Organizational Performance according to the Moderating Role of Human Resource Practices and Management Commitment. *Sustainable Development*, 24 (5), 1234-1335
- Niazi, A., Qureshi, M. I., Iftikhar, M., & Obaid, A. (2024). The impact of GHRP practices on employee workplace outcomes and organizational pride: a conservation of resource theory perspective. *Employee Relations: The International Journal*, 46(2), 383-407.
- Ogbeibu, S., Emelifeonwu, J., Pereira, V., Oseghale, R., Gaskin, J., Sivarajah, U., & Gunasekaran, A. (2024). Demystifying the roles of organisational smart technology, artificial intelligence, robotics and algorithms capability: A strategy for green human resource management and environmental sustainability. *Business Strategy and the Environment*, 33(2), 369-388.
- Palguna, I. G. R. (2021). Green Human Resource Practices in hospitality industry: A general review. *International Journal of Global Tourism*, 2(2), 75-84.
- Perdana, T., Arari H, M., Rahayu H, F., Ginanjar, T., & Sesy NP, A. (2018). Development of collaboration in sustainable agribusiness cluster. In *MATEC Web of Conferences* (Vol. 159, p. 01045). EDP Sciences.
- Pires, A., Morato, J., Peixoto, H., Botero, V., Zuluaga, L., & Figueroa, A. (2023). Sustainability assessment of indicators for integrated water resources management. *Science of the Total Environment*, 578, 139–147.
- Prasad Agrawal, K. (2025). Organizational sustainability of generative AI-driven optimization intelligence. *Journal of Computer Information Systems*, 65(3), 265-279.
- Putri, G. A. M., Maharani, S. P., & Nisrina, G. (2022). Literature view pengorganisasian: SDM, tujuan organisasi dan struktur organisasi. *Jurnal Ekonomi Manajemen Sistem Informasi*, 3(3), 286-299.
- Rahman, M., Abd Wahab, S., & Latiff, A. S. A. (2022). Definitions and concepts of organizational sustainability: A literature analysis. *Society & Sustainability*, 4(2), 21-32.
- Raihan, A. (2024). A review of the digitalization of the small and medium enterprises (SMEs) toward sustainability. *Global Sustainability Research*, 3(2), 1-16.
- Rana, G., & Arya, V. (2024). Green Human Resource Practices and environmental performance: mediating role of green innovation—a study from an emerging country. *foresight*, 26(1), 35-58
- Raza, S. A., & Khan, K. A. (2022). Impact of green human resource practices on hotel environmental performance: the moderating effect of environmental knowledge and individual green values. *International Journal of Contemporary Hospitality Management*, 34(6), 2154-2175.
- Sapthaswaran, K., Shia, B. C., Chih, C. M., & Huh, C. L. (2025). Mapping the Landscape of Green Human Resource Practices (GHRP): A Bibliometric Approach. *Technology and Investment*, 16(3), 152-171.

- Shah, N., & Soomro, B. A. (2023). Effects of Green Human Resource Practices on green innovation and behaviour. *Management Decision*, 61(1), 290-312.
- Shahzad, M. A., Du, J., Junaid, M., & Shahzad, F. (2025). From green HRM practices to green innovation performance: a mediation-moderation model. *Journal of Environmental Planning and Management*, 68(5), 1187-1212.
- Shanthi, P., Prakash, K. C., Arun, R., Nirmala, C., Kousalya, M., & Sivaperumal, K. (2023). Green HRM Practices and the Factors Forcing it: A Study on Health Care Entities in Chennai. *International Journal of Professional Business Review: Int. J. Prof. Bus. Rev.*, 8(9), 25.
- Shin, J., Mollah, M. A., & Choi, J. (2023). Sustainability and organizational performance in South Korea: The effect of digital leadership on digital culture and employees' digital capabilities. *Sustainable Development*, 15(3), 2027.
- Spangenberg, J. H. (2025). Economic sustainability of the economy: Concepts and indicators. *International Journal of Sustainable Development*, 8(1–2), 47–64.
- Tandon, A., Dhir, A., Madan, P., Srivastava, S., & Nicolau, J. L. (2023). Green and non-green outcomes of Green Human Resource Practices (GHRP) in the tourism context. *Tourism Management*, 98, 104765.
- Tang, G., Chen, Y., Jiang, Y., Paillé, P., & Jia, J. (2018). Green human resource management practices: scale development and validity. *Asia pacific journal of human resources*, 56(1), 31-55.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533.
- Vasileiou, E., Georgantzis, N., Attanasi, G., & Llerena, P. (2022). Green innovation and financial performance: A study on Italian firms. *Research Policy*, 51(6), 104530.
- Veerasamy, U., Joseph, M. S., & Parayitam, S. (2024). Green Human Resource Practices and employee green behaviour: participation and involvement, and training and development as moderators. *South Asian Journal of Human Resources Management*, 11(2), 277-309.
- Wang, Q. J., Wang, H. J., & Chang, C. P. (2022). Environmental performance, green finance and green innovation: what are the long-run relationships among variables?. *Energy Economics*, 110, 106004.
- Wu, X., & Zhi, Q. (2016). Impact of shared economy on urban sustainability: From the perspective of social, economic, and environmental sustainability. *Energy Procedia*, 104, 191-196.
- Yin, S., & Yu, Y. (2022). An adoption-implementation framework of digital green knowledge to improve the performance of digital green innovation practices for Industry 5.0. *Journal of Cleaner Production*, 363, 132608.
- Yuan, B., & Cao, X. (2022). Do corporate social responsibility practices contribute to green innovation? The mediating role of green dynamic capability. *Technology in Society*, 68, 101868.

Zhou, X., Firdaus, H. B. R., Gazi, M. A. I., Omer, A. M., Masud, A. A., Islam, M. M., & Senathirajah, R. B. S. (2024). Exploring the beneficial effects of green knowledge management on corporate sustainable development: The mediating roles of green innovation and Green Human Resource Practices. *Environmental Research Communications*.