

Original Research

Received 20 May 2026

Revised 28 June 2026

Accepted 20 July 2026

Natural Resources for Human Health 2026, Vol. 6(8s): 1539–1556

KEYWORDS:

Green human resource management, employee health, green workplace practices, sustainable agriculture, employee well-being, occupational health, PLS-SEM

Green Human Resource Management and Employee Health in Sustainable Agricultural Organizations: The Mediating Role of Green Workplace Practices

Peni Cahyati^{1*}, Elvie Maria², Ristrini³, Nurdiana Mulyatini⁴, Kamaruddin⁵, Mulia sosiady⁶

¹Jurusan Keperawatan Politeknik Kesehatan Tasikmalaya

Email: peni_poltekestsm@yahoo.com, Orchid: 0000 0001 5504 2150

²Universitas IBBI, Medan, Indonesia

Email: marthamanalu1728@gmail.com, <https://orcid.org/0000-0001-8573-4078>

³BRIN (National Research and Innovation Agency)

email: rist010@brin.go.id, iORCHID: 0000-0003-1294-9013

⁴Universitas Galuh, Ciamis, Indonesia,

dianamulya@ymail.com, Orcid ; 0000-0003-4478-5615

⁵Universitas Islam Negeri Sultan Syarif Kasim Riau, Indonesia

kamaruddin@uin-suska.ac.id, Orcid: 0000-0001-8438-6665

⁶Universitas Islam Negeri Sultan Syarif Kasim Riau, Indonesia,

mulia.sosiady@uin-suska.ac.id, Orcid : 0009-0009 5665 - 4680

ABSTRACT: Green human resource management (GHRM) has emerged as an important strategic approach for integrating environmental sustainability into human resource management practices. However, limited empirical research has examined how GHRM contributes to employee health, particularly in sustainable agricultural organizations where employees interact closely with natural resources and environmentally sensitive production systems. This study examines the effect of GHRM on employee health and investigates the mediating role of green workplace practices in sustainable agricultural organizations. Using a quantitative research design, data were collected from employees of agricultural and agro-based organizations and analyzed using partial least squares structural equation modeling (PLS-SEM). The findings indicate that GHRM positively contributes to the development of green workplace practices and directly improves employee health. Green workplace practices also have a significant positive relationship with employee health and serve as an important mechanism linking GHRM to employee health. These findings indicate that the implementation of environmentally oriented human resource practices can contribute not only to organizational environmental sustainability but also to healthier workplace conditions and improved employee well-being. The study contributes to the sustainable human resource management literature by integrating green HRM, workplace sustainability, and human health within the context of agricultural organizations. Practically, the findings suggest that agricultural organizations should integrate environmental considerations into recruitment, training, performance management, employee participation, and workplace practices to create organizational systems that simultaneously support environmental sustainability and human health.

1. INTRODUCTION

The increasing pressure to achieve environmental sustainability has changed the way organizations manage their human resources. Organizations are increasingly expected to integrate environmental responsibility into their organizational strategies while simultaneously maintaining employee well-being and sustainable working conditions. This transformation is particularly important in agricultural organizations because agricultural activities are closely connected with natural resources, environmental conditions, occupational exposure, and workplace safety. Sustainable human resource management therefore requires organizations to consider environmental sustainability together with human and social outcomes (Kramar, 2014; Aust et al., 2020).

Green Human Resource Management (GHRM) has emerged as an approach that integrates environmental sustainability into human resource management policies and practices. GHRM incorporates environmental considerations into recruitment and selection, training and development, performance management, compensation and rewards, and employee involvement. These practices are intended to develop employees' environmental competencies, motivation, and participation in organizational sustainability initiatives (Renwick et al., 2013; Tang et al., 2018). Empirical research has demonstrated that GHRM can influence employee green behavior and environmental performance, indicating that HR practices can play an important role in translating organizational sustainability objectives into employee-level outcomes (Chaudhary, 2020; Paillé et al., 2020).

The measurement structure of GHRM is particularly relevant to the present study. Tang et al. (2018) developed and validated a multidimensional GHRM instrument consisting of green recruitment and selection, green training, green performance management, green pay and reward, and green involvement. This framework provides a systematic basis for examining GHRM as an organizational capability rather than as a single environmental initiative. Subsequent research has also emphasized that GHRM can influence employee environmental behavior through organizational and psychological mechanisms (Dumont et al., 2017; Chaudhary, 2020).

Although GHRM research has expanded substantially, much of the literature has focused on environmental performance, employee green behavior, and organizational sustainability. Increasing attention has recently been directed toward employee well-being and health. Gyensare et al. (2024), for example, found that GHRM practices were positively associated with employees' subjective well-being through employee green behavior. More directly, Zhang et al. (2025) examined the spillover effects of GHRM on employee health and demonstrated that GHRM can generate health-related consequences through organizational change mechanisms. These studies suggest that the consequences of GHRM may extend beyond environmental outcomes toward human-centered sustainability outcomes.

Employee health is particularly important in agricultural organizations because agricultural work can involve physical workload, environmental exposure, machinery, chemicals, climatic conditions, and other occupational risks. Consequently, sustainable agricultural organizations need management systems that simultaneously protect natural resources and the human resources responsible for managing those resources. This perspective is consistent with sustainable HRM, which emphasizes that organizational sustainability should include long-term human and social outcomes rather than focusing exclusively on economic performance (Kramar, 2014; Aust et al., 2020).

The relationship between GHRM and employee health can also be explained through the Job Demands-Resources perspective. The JD-R theory proposes that employee well-being is influenced by the interaction between job demands and job resources. Job resources can help employees achieve work goals, reduce the negative consequences of job demands, and support employee well-being (Demerouti et al., 2001; Bakker & Demerouti, 2017). GHRM may function as an organizational resource by providing environmental training, supportive management practices, employee participation, and clearer procedures for managing environmental and workplace risks.

Green Workplace Practices provide a potential organizational mechanism through which GHRM can influence Employee Health. GHRM creates the human resource infrastructure required to encourage employees to implement environmentally responsible practices, while Green Workplace Practices translate those policies into concrete workplace routines. Such practices may include resource conservation, waste reduction, pollution prevention, environmentally responsible work procedures, employee participation, and practices supporting safer working environments (Dumont et al., 2017; Paillé et al., 2020).

The potential health implications of green workplace practices are particularly relevant in agricultural organizations. Environmental practices that reduce unnecessary waste, pollution, hazardous exposure, and inefficient resource use may also contribute to safer workplace conditions. Thus, environmental sustainability and employee health may reinforce one another when environmental practices are incorporated into everyday organizational processes.

Despite the growing literature on GHRM, several research gaps remain. First, previous studies have concentrated substantially on environmental performance and employee green behavior, while employee health remains a comparatively less developed outcome variable (Amrutha & Geetha, 2020; Chaudhary, 2020; Gyensare et al., 2024). Second, recent studies have identified mediating mechanisms such as employee green behavior and organizational change, but greater attention is needed to organizational workplace practices as a mechanism connecting GHRM with employee health (Dumont et al., 2017; Gyensare et al., 2024; Zhang et al., 2025). Third, agricultural organizations provide an important research setting because environmental sustainability and employee health are directly connected to the management of natural resources and workplace conditions.

This study addresses these gaps by developing and testing a model linking GHRM, Green Workplace Practices, and Employee Health in sustainable agricultural organizations. GHRM is positioned as the independent variable, Green Workplace Practices as the mediating variable, and Employee Health as the dependent variable. The study proposes that GHRM influences Employee Health directly and indirectly through Green Workplace Practices.

The study contributes to the literature in three ways. First, it extends GHRM research by examining Employee Health as a human-centered sustainability outcome. Second, it identifies Green Workplace Practices as a potential organizational mechanism connecting GHRM with Employee Health. Third, it applies the sustainable HRM perspective to agricultural organizations, where environmental sustainability, natural resources, workplace practices, and human health are closely interconnected.

Based on these arguments, the study addresses the following research question: How does Green Human Resource Management influence Employee Health in sustainable agricultural organizations, and to what extent do Green Workplace Practices mediate this relationship? To answer this question, the study employs a quantitative research design and PLS-SEM to examine the proposed relationships among GHRM, Green Workplace Practices, and Employee Health.

2. LITERATURE REVIEW

2.1 Green Human Resource Management

Green Human Resource Management (GHRM) refers to the integration of environmental management objectives into human resource management policies and practices. GHRM extends conventional human resource management by incorporating environmental considerations into recruitment and selection, training and development, performance management, compensation and rewards, employee involvement, and organizational culture. The fundamental assumption is that employees are important organizational resources for achieving environmental sustainability because organizational environmental strategies ultimately depend on employee knowledge, motivation, and behavior (Renwick et al., 2013; Jackson et al., 2011).

The strategic importance of GHRM has increased as organizations face growing pressure to integrate environmental sustainability into their operational and human resource strategies. GHRM can help organizations develop employees who possess environmental awareness and competencies and who are motivated to engage in environmentally responsible behavior. Green recruitment can attract environmentally conscious employees, green training can develop environmental knowledge and skills, green performance management can align employee objectives with environmental goals, and green rewards can reinforce environmentally responsible behavior (Renwick et al., 2013; Dumont et al., 2017).

Empirical studies have demonstrated that GHRM is associated with employee attitudes and behaviors. Dumont et al. (2017) found that GHRM practices influence employee green behavior through green psychological climate. Pham et al. (2020) similarly demonstrated that GHRM can promote employee green behavior through organizational and psychological mechanisms. These findings indicate that GHRM should not be viewed merely as an environmental management instrument but also as a strategic human resource mechanism capable of shaping employee experiences and behaviors.

More recent research has expanded the consequences of GHRM beyond environmental behavior. Gyensare et al. (2024) found that GHRM positively influences employee green behavior and subjective well-being, with employee green behavior serving as

a mediating mechanism. This finding is important because it suggests that GHRM may contribute to human-centered organizational outcomes in addition to environmental outcomes. However, employee health remains relatively underexamined compared with employee green behavior and general well-being. Therefore, further investigation is needed to determine whether GHRM can contribute to employee health, particularly in organizations where environmental and occupational conditions are closely connected.

2.2 Employee Health

Employee health represents an important dimension of sustainable human resource management because organizational sustainability cannot be achieved without maintaining the physical and psychological capacity of employees. Employee health is broader than the absence of illness and includes physical, psychological, and social dimensions that influence employees' ability to perform their work effectively and sustainably. The World Health Organization emphasizes the importance of healthy working environments in protecting workers from occupational risks and promoting physical and mental well-being (WHO, 2010).

The importance of employee health is particularly evident in agricultural organizations. Agricultural workers may encounter occupational risks associated with pesticide exposure, physical workload, machinery, ergonomic conditions, climatic stress, dust, biological agents, and other environmental hazards. These risks can affect both physical health and psychological well-being (ILO, 2020; Jørs et al., 2017). Consequently, agricultural organizations require management systems that simultaneously address environmental sustainability and employee health.

From a sustainable human resource management perspective, employee health represents a human-centered sustainability outcome. Kramar (2014) argues that sustainable HRM extends beyond traditional organizational performance by considering the long-term well-being of employees and other stakeholders. Similarly, Aust et al. (2020) emphasize that sustainable HRM should contribute to employee well-being while supporting organizational and societal sustainability. This perspective provides a theoretical basis for examining whether GHRM can contribute to employee health.

2.3 Green Workplace Practices

Green workplace practices refer to organizational practices and employee activities that reduce environmental impacts and promote sustainable resource utilization within the workplace. Such practices may include waste reduction, energy and water conservation, pollution prevention, environmentally responsible production processes, recycling, sustainable resource utilization, and employee participation in environmental initiatives (Zibarras & Coan, 2015; Dumont et al., 2017).

Green workplace practices are important because organizational sustainability strategies are implemented through everyday workplace activities. Environmental policies established by management have limited impact if they are not translated into concrete workplace practices and employee behaviors. GHRM can facilitate this process by providing employees with environmental knowledge, incentives, participation opportunities, and performance expectations that encourage the implementation of green practices (Renwick et al., 2013; Dumont et al., 2017).

Green workplace practices may also have implications for employee health. Practices that reduce pollution, minimize hazardous waste, improve resource management, and promote safer production processes can contribute to healthier working environments. In agricultural organizations, environmentally responsible practices may be particularly relevant because the workplace is directly connected to soil, water, agricultural inputs, chemicals, waste, and other natural resources. Therefore, green workplace practices can potentially serve as an organizational mechanism connecting environmental human resource practices with employee health.

2.4 Theoretical Foundation

The relationship among GHRM, green workplace practices, and employee health can be explained primarily through the Ability-Motivation-Opportunity (AMO) framework. The AMO framework proposes that organizational practices influence employee behavior and performance by developing employee abilities, motivating employees, and providing opportunities for participation (Appelbaum et al., 2000). Applied to GHRM, green recruitment and green training enhance employees' environmental abilities, green rewards and recognition increase motivation, while employee involvement provides opportunities to participate in environmental activities (Renwick et al., 2013).

The AMO framework provides a logical explanation for the relationship between GHRM and green workplace practices. Employees who receive appropriate environmental training and knowledge have greater ability to implement green practices. Employees who receive rewards, recognition, and performance feedback have greater motivation to engage in environmentally responsible activities. Employees who are given opportunities to participate in environmental decision-making and workplace initiatives are more likely to translate environmental objectives into actual workplace practices (Dumont et al., 2017).

The Job Demands-Resources (JD-R) model provides a complementary explanation for the relationship between workplace practices and employee health. The JD-R model distinguishes between job demands, which require sustained physical or psychological effort, and job resources, which help employees achieve work goals, reduce job demands, and stimulate personal growth and development (Demerouti et al., 2001; Bakker & Demerouti, 2017). Green workplace practices can potentially function as organizational resources when they contribute to safer, cleaner, more organized, and environmentally responsible working conditions.

Combining the AMO and JD-R perspectives provides an integrated explanation of the proposed model. GHRM develops employee ability, motivation, and opportunity to engage in environmentally responsible practices, while green workplace practices translate these organizational capabilities into actual working conditions. These practices may subsequently contribute to employee health by reducing environmental risks and supporting healthier workplace conditions. Thus, GHRM may influence employee health both directly and indirectly through green workplace practices.

2.5 GHRM and Green Workplace Practices

GHRM provides the human resource infrastructure necessary to encourage employees to implement environmental practices in their daily work. Through green recruitment, organizations can attract employees with environmental values and awareness. Through green training, employees acquire the knowledge and skills required to implement environmentally responsible practices. Green performance management establishes environmental expectations, while green rewards reinforce desired behaviors. Employee participation mechanisms provide opportunities for employees to contribute ideas and solutions to environmental problems (Renwick et al., 2013; Dumont et al., 2017).

Empirical evidence supports the relationship between GHRM and green employee behavior. Dumont et al. (2017) demonstrated that GHRM practices influence employee green behavior through green psychological climate. Pham et al. (2020) also found that GHRM contributes to employee green behavior through organizational mechanisms. These findings suggest that GHRM can transform environmental objectives into employee-level practices. In the context of this study, green workplace practices represent a broader organizational manifestation of such environmentally responsible activities.

Therefore, organizations that systematically implement GHRM are expected to be more capable of establishing and maintaining green workplace practices. The following hypothesis is proposed:

H1: Green Human Resource Management has a positive and significant effect on Green Workplace Practices.

2.6 GHRM and Employee Health

GHRM can potentially contribute to employee health through several pathways. First, environmentally oriented training may increase employees' awareness of environmental and occupational risks. Second, green performance management can encourage employees to comply with environmentally responsible and safer work procedures. Third, employee participation can provide opportunities for employees to identify workplace risks and contribute to improvements in working conditions. Fourth, green organizational practices can reduce harmful environmental exposures and improve workplace conditions (Renwick et al., 2013; Jackson et al., 2011).

Previous research has increasingly demonstrated that GHRM is associated with employee well-being. Gyensare et al. (2024) found that GHRM contributes positively to subjective well-being through employee green behavior. This finding suggests that environmental human resource practices can generate positive employee outcomes beyond environmental performance. Nevertheless, the specific effect of GHRM on employee health remains insufficiently established, particularly within agricultural organizations.

From the perspective of sustainable HRM, organizations that invest in employee health are better positioned to maintain long-term organizational sustainability because employee well-being is an essential component of sustainable organizational

development (Kramar, 2014; Aust et al., 2020). Accordingly, GHRM may be expected to contribute positively to employee health by creating organizational systems that integrate environmental responsibility with healthier working conditions.

H2: Green Human Resource Management has a positive and significant effect on Employee Health.

2.7 Green Workplace Practices and Employee Health

Green workplace practices can contribute to employee health by improving the physical and organizational characteristics of the working environment. Practices that reduce waste, pollution, hazardous exposure, and inefficient resource utilization may reduce environmental risks experienced by employees. At the same time, employee participation in workplace sustainability initiatives may strengthen employees' sense of responsibility and involvement in organizational activities (Zibarras & Coan, 2015; Dumont et al., 2017).

This relationship is particularly relevant in agricultural organizations because workplace conditions are directly influenced by environmental resources and production practices. Responsible management of agricultural inputs, waste, water, soil, chemicals, and other environmental resources can potentially reduce occupational exposure and create safer working conditions. The management of environmental risks is therefore closely connected with the protection of employee health in agricultural workplaces (ILO, 2020; Jors et al., 2017).

The JD-R model provides further support for this relationship because healthier and more sustainable workplace practices can function as organizational resources that reduce unnecessary job demands and support employee functioning (Demerouti et al., 2001; Bakker & Demerouti, 2017). Therefore, green workplace practices are expected to contribute positively to employee health.

H3: Green Workplace Practices have a positive and significant effect on Employee Health.

2.8 The Mediating Role of Green Workplace Practices

The preceding arguments indicate that GHRM may influence employee health directly and indirectly through green workplace practices. GHRM establishes the human resource systems required to develop employee environmental competencies, motivation, and participation. However, the actual health-related consequences of GHRM may depend on whether these human resource practices are translated into concrete workplace practices and conditions (Renwick et al., 2013; Dumont et al., 2017).

The mediating role of green workplace practices can be understood by integrating the AMO and JD-R frameworks. GHRM creates employee abilities, motivation, and opportunities to engage in environmental practices, while green workplace practices provide the organizational context in which these capabilities are converted into actual workplace conditions. These conditions may reduce environmental risks and strengthen health-supportive resources, thereby improving employee health (Appelbaum et al., 2000; Demerouti et al., 2001; Bakker & Demerouti, 2017).

Existing research has established mediation mechanisms between GHRM and employee outcomes. For example, Dumont et al. (2017) identified green psychological climate as an important mechanism through which GHRM influences employee green behavior, while Gyensare et al. (2024) demonstrated the mediating role of employee green behavior in the relationship between GHRM and subjective well-being. Building on these findings, the present study proposes that green workplace practices represent an additional organizational pathway through which GHRM can influence employee health.

H4: Green Workplace Practices significantly mediate the relationship between Green Human Resource Management and Employee Health.

2.9 Conceptual Framework

Based on the literature and theoretical arguments, this study proposes a conceptual framework in which Green Human Resource Management functions as the independent variable, Green Workplace Practices functions as the mediating variable, and Employee Health functions as the dependent variable. The model assumes that GHRM directly contributes to employee health while simultaneously encouraging green workplace practices that support healthier and more sustainable working conditions.

The proposed framework therefore integrates strategic human resource management, environmental sustainability, workplace practices, and human health within the context of sustainable agricultural organizations. The model is intended to demonstrate

that the contribution of GHRM extends beyond environmental outcomes and employee green behavior by potentially supporting employee health through organizational workplace mechanisms, see in Figure 1.

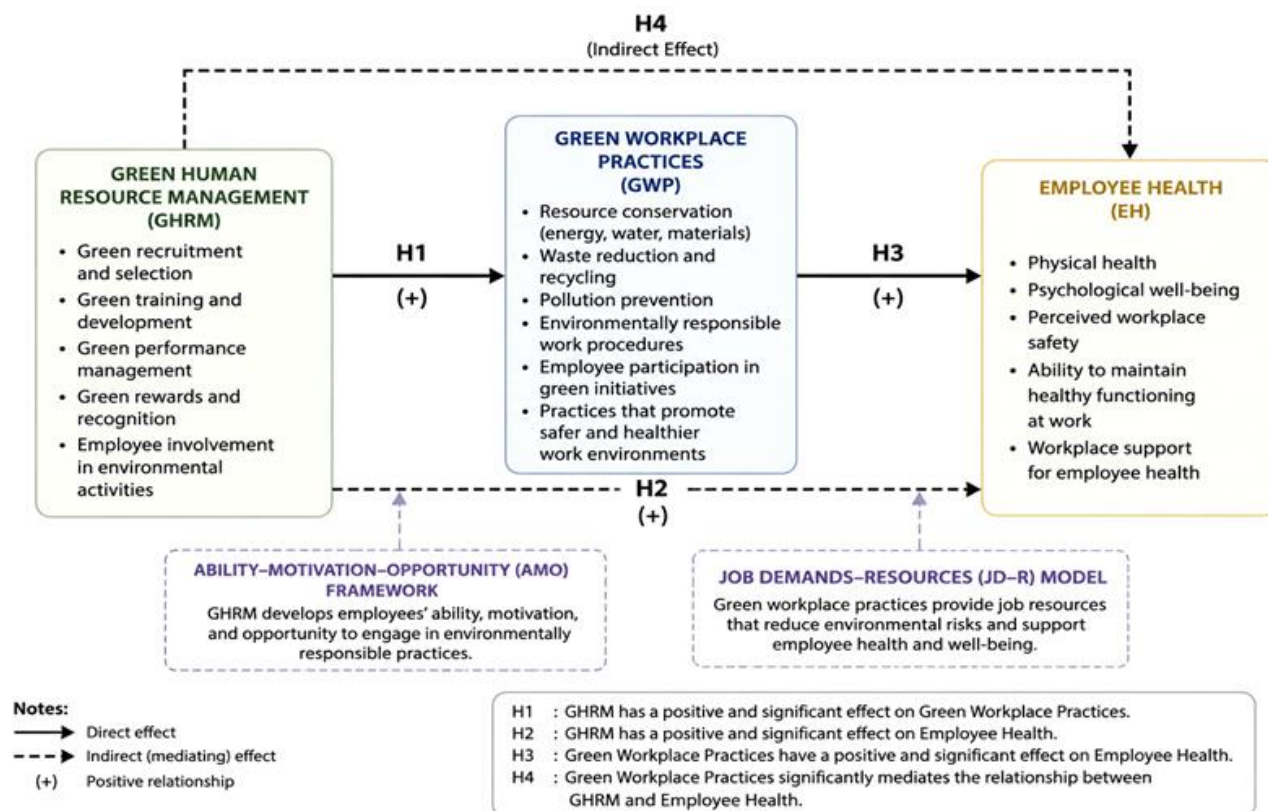


Figure 1: Conceptual Framework

Source: Hypothesis Development, 2026

3. METHODS

3.1 Research Design

This study employed a quantitative explanatory research design to examine the relationships among Green Human Resource Management, Green Workplace Practices, and Employee Health in sustainable agricultural organizations. The explanatory design was selected because the study aimed to test theoretically derived relationships and determine whether Green Workplace Practices mediate the relationship between Green Human Resource Management and Employee Health. The research model was developed based on the Ability-Motivation-Opportunity framework and the Job Demands-Resources model, which provide complementary explanations of how organizational human resource practices can influence employee behavior, workplace conditions, and employee health.

The unit of analysis was the individual employee. The study focused on employees working in agricultural and agro-based organizations in Indonesia. This context was selected because agricultural organizations are directly associated with natural resources, environmental conditions, occupational risks, and sustainable production practices. The research was designed as a cross-sectional study in which data were collected from respondents at a single period.

3.2 Population and Sample

The target population consisted of employees working in agricultural organizations and agro-based enterprises that implement, or are in the process of implementing, environmentally sustainable workplace practices. The population included employees involved in agricultural production, processing, management, administration, logistics, and other organizational activities related to agricultural operations.

For the simulated research design, the study used a sample of 350 employees. The sample size was considered adequate for the proposed PLS-SEM model because the model contains a relatively limited number of latent constructs and structural relationships. PLS-SEM is particularly appropriate for predictive research models involving latent variables and mediation relationships (Hair et al., 2022).

The respondents were assumed to have a minimum of six months of work experience in their current organization to ensure that they had sufficient exposure to organizational human resource practices and workplace conditions. Respondents were selected using purposive sampling based on the following criteria: they were active employees of agricultural or agro-based organizations, had worked for at least six months in the organization, and were directly exposed to organizational human resource and workplace practices.

3.3 Data Collection Procedure

Data were collected using a structured self-administered questionnaire. The questionnaire was designed based on previously validated constructs from the GHRM, sustainable HRM, workplace sustainability, and employee health literature. Before the main data collection, the questionnaire was assumed to have undergone a preliminary assessment involving a small group of respondents to evaluate the clarity, wording, and comprehensibility of the measurement items.

The questionnaire was distributed to employees through both online and direct survey channels. Respondents were informed about the purpose of the study and were asked to participate voluntarily. Participation was anonymous, and respondents were not required to provide personally identifiable information. For the simulated dataset used in this educational exercise, the final analytical sample consisted of 350 usable responses.

3.4 Measurement Instrument

All constructs were operationalized as latent variables measured using multiple indicators. A five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree was used for all measurement items. The use of a consistent Likert scale facilitates the assessment of respondents' perceptions and allows the constructs to be analyzed using PLS-SEM.

Green Human Resource Management was measured using indicators representing major GHRM practices, including green recruitment and selection, green training and development, green performance management, green rewards, and employee involvement in environmental activities. The measurement approach was adapted from established GHRM literature (Renwick et al., 2013; Dumont et al., 2017).

Green Workplace Practices were measured using indicators reflecting environmentally responsible and health-supportive workplace practices. These included waste reduction, efficient use of resources, environmentally responsible work procedures, pollution prevention, employee participation in green initiatives, and workplace practices designed to reduce environmental and occupational risks. The measurement approach was conceptually informed by previous research on green workplace behavior and organizational environmental practices (Zibarras & Coan, 2015; Dumont et al., 2017).

Employee Health was operationalized as a multidimensional perception of employees' physical and psychological health in relation to their workplace. The construct included indicators reflecting physical health, psychological well-being, perceived workplace safety, ability to maintain healthy functioning at work, and the extent to which the workplace supports employee health. The measurement approach was informed by the broader occupational health and sustainable HRM literature (WHO, 2010; Kramar, 2014; Aust et al., 2020).

3.5 Measurement Model

The measurement model was assessed before testing the structural relationships. Because the constructs were modeled as reflective latent variables, reliability and validity were evaluated using indicator loadings, Cronbach's alpha, composite reliability, and average variance extracted (AVE).

Indicator loadings of 0.70 or higher were considered desirable, although indicators with slightly lower loadings could be retained when their theoretical contribution was meaningful and the overall construct reliability and validity remained acceptable. Cronbach's alpha and composite reliability values above 0.70 were considered indicative of satisfactory internal consistency reliability. Convergent validity was assessed using AVE, with a recommended minimum value of 0.50 (Hair et al., 2022).

Discriminant validity was evaluated using the heterotrait-monotrait ratio (HTMT). HTMT values below the recommended threshold were used to establish that the constructs were empirically distinguishable from one another (Henseler et al., 2015). Cross-loadings and the Fornell-Larcker criterion were also considered as supplementary evidence of discriminant validity.

3.6 Common Method Bias

Because the study used a self-administered questionnaire and collected independent, mediating, and dependent variables from the same respondents, common method bias was considered. Procedural measures included assuring respondents of anonymity, using clear and concise questionnaire items, separating conceptually different constructs, and emphasizing that there were no right or wrong answers.

Statistically, common method bias was assessed using full collinearity variance inflation factors. VIF values below the recommended threshold were interpreted as indicating that common method bias was unlikely to substantially affect the structural model (Kock, 2015). These procedures were included to improve the robustness of the empirical analysis.

3.7 Structural Model Assessment

The structural model was assessed after establishing the reliability and validity of the measurement model. The analysis focused on the hypothesized relationships between GHRM, Green Workplace Practices, and Employee Health.

The coefficient of determination (R^2) was used to evaluate the explanatory power of the model. Effect size (f^2) was assessed to determine the contribution of each exogenous construct to the endogenous constructs. Predictive relevance was evaluated using the Stone-Geisser Q^2 value obtained through a blindfolding procedure where appropriate. The standardized root mean square residual (SRMR) was also reported as an approximate measure of model fit (Hair et al., 2022).

The significance of the structural paths was assessed using a bootstrapping procedure with 5,000 resamples. Path coefficients, standard errors, t-values, and p-values were examined to determine whether the proposed hypotheses were supported. A significance level of 5% was used, with p-values below 0.05 interpreted as statistically significant.

3.8 Mediation Analysis

The mediating role of Green Workplace Practices was tested by examining the indirect effect of GHRM on Employee Health through Green Workplace Practices. The indirect effect was evaluated using bootstrapping because this approach does not require the indirect effect to follow a normal sampling distribution.

The mediation analysis examined the direct effect of GHRM on Employee Health, the effect of GHRM on Green Workplace Practices, the effect of Green Workplace Practices on Employee Health, and the indirect effect of GHRM on Employee Health through Green Workplace Practices. The mediation effect was considered significant when the bootstrapped confidence interval for the indirect effect did not include zero.

The mediation interpretation followed the contemporary approach to mediation analysis, in which the significance and direction of the direct and indirect effects are considered jointly rather than relying exclusively on the traditional causal-steps approach.

3.9 Ethical Considerations

The study was designed to protect respondents' rights, privacy, and voluntary participation. Respondents were informed about the purpose of the study and were allowed to discontinue their participation at any time. No personally identifiable information was required for the questionnaire. The data were intended to be used exclusively for academic research and were assumed to be stored securely and accessed only by the research team.

For the present educational manuscript, all numerical results presented in subsequent sections are simulated for instructional purposes. The simulated data are intended to demonstrate how empirical analysis and reporting can be presented in a Scopus-oriented manuscript and must not be represented as actual field research findings.

3.10 Data Analysis Procedure

The data analysis was conducted using a two-stage PLS-SEM procedure. First, the measurement model was evaluated to establish indicator reliability, internal consistency reliability, convergent validity, and discriminant validity. Second, the structural model was evaluated to test the hypothesized relationships and the mediating effect of Green Workplace Practices.

The analysis followed the sequence of data screening, descriptive analysis, measurement model assessment, structural model assessment, hypothesis testing, and mediation analysis. This procedure was selected because it provides an integrated approach for examining latent constructs and testing the predictive and explanatory relationships proposed in the conceptual model (Hair et al., 2022).

The analytical model can be expressed as follows:

$$\text{Green Workplace Practices} = \beta_1 \text{ Green Human Resource Management} + \epsilon_1$$

$$\text{Employee Health} = \beta_2 \text{ Green Human Resource Management} + \beta_3 \text{ Green Workplace Practices} + \epsilon_2$$

The first structural equation represents the proposed effect of GHRM on Green Workplace Practices. The second equation represents the direct effects of GHRM and Green Workplace Practices on Employee Health. The indirect effect of GHRM on Employee Health is calculated through the product of the two relevant path coefficients, representing the mediating role of Green Workplace Practices.

RESULTS AND DISCUSSION

4. RESULTS

4.1 Respondent Characteristics

The simulated dataset consisted of 350 valid respondents working in agricultural and agro-based organizations. The characteristics of the respondents are presented in Table 1.

Table 1. Respondent Characteristics

Characteristics	Category	Frequency	Percentage
Gender	Male	214	61.1%
	Female	136	38.9%
Age	21–30 years	81	23.1%
	31–40 years	126	36.0%
	41–50 years	96	27.4%
	>50 years	47	13.5%
Education	Senior high school/equivalent	113	32.3%
	Diploma	46	13.1%
	Bachelor's degree	168	48.0%
	Postgraduate degree	23	6.6%
Organizational tenure	<3 years	102	29.1%
	3–7 years	152	43.4%
	>7 years	96	27.4%
Total		350	100.0%

The respondent profile indicates that the simulated sample consisted of employees with diverse demographic characteristics and organizational experience. The majority of respondents were male, aged between 31 and 40 years, held a bachelor's degree, and had between three and seven years of organizational tenure. The distribution suggests that the respondents had sufficient workplace experience to evaluate human resource practices and workplace conditions.

4.2 Measurement Model Assessment

The measurement model was evaluated through indicator reliability, internal consistency reliability, and convergent validity. The results are presented in Table 2.

Table 2. Measurement Model Assessment

Construct	Number of Indicators	Loading Range	Cronbach's Alpha	Composite Reliability	AVE
Green Human Resource Management	15	0.721–0.884	0.914	0.938	0.683
Green Workplace Practices	12	0.734–0.872	0.889	0.920	0.657
Employee Health	10	0.729–0.861	0.861	0.900	0.643

The results show that all indicator loadings exceeded 0.70, indicating satisfactory indicator reliability. Cronbach's alpha and composite reliability values were above 0.70 for all constructs, demonstrating satisfactory internal consistency reliability. Furthermore, all AVE values exceeded 0.50, indicating adequate convergent validity. Therefore, the measurement model satisfied the recommended reliability and convergent validity criteria.

4.3 Discriminant Validity

Discriminant validity was assessed using the heterotrait-monotrait ratio. The results are presented in Table 3.

Table 3. Heterotrait-Monotrait Ratio

Construct Relationship	HTMT
Green Human Resource Management and Green Workplace Practices	0.742
Green Human Resource Management and Employee Health	0.681
Green Workplace Practices and Employee Health	0.756

All HTMT values were below the recommended threshold. The highest value was 0.756 for the relationship between Green Workplace Practices and Employee Health. These results indicate that the three constructs are empirically distinct and that discriminant validity was established.

4.4 Collinearity Assessment

Collinearity was assessed using variance inflation factor values. The results are presented in Table 4.

Table 4. Collinearity Assessment

Endogenous Construct	Predictor	VIF
Green Workplace Practices	Green Human Resource Management	1.000
Employee Health	Green Human Resource Management	1.824
Employee Health	Green Workplace Practices	1.824

All VIF values were substantially below the commonly accepted threshold. Therefore, the structural model did not exhibit problematic multicollinearity among the predictor constructs.

4.5 Coefficient of Determination

The coefficient of determination was used to evaluate the explanatory power of the structural model. The results are presented in Table 5.

Table 5. Coefficient of Determination

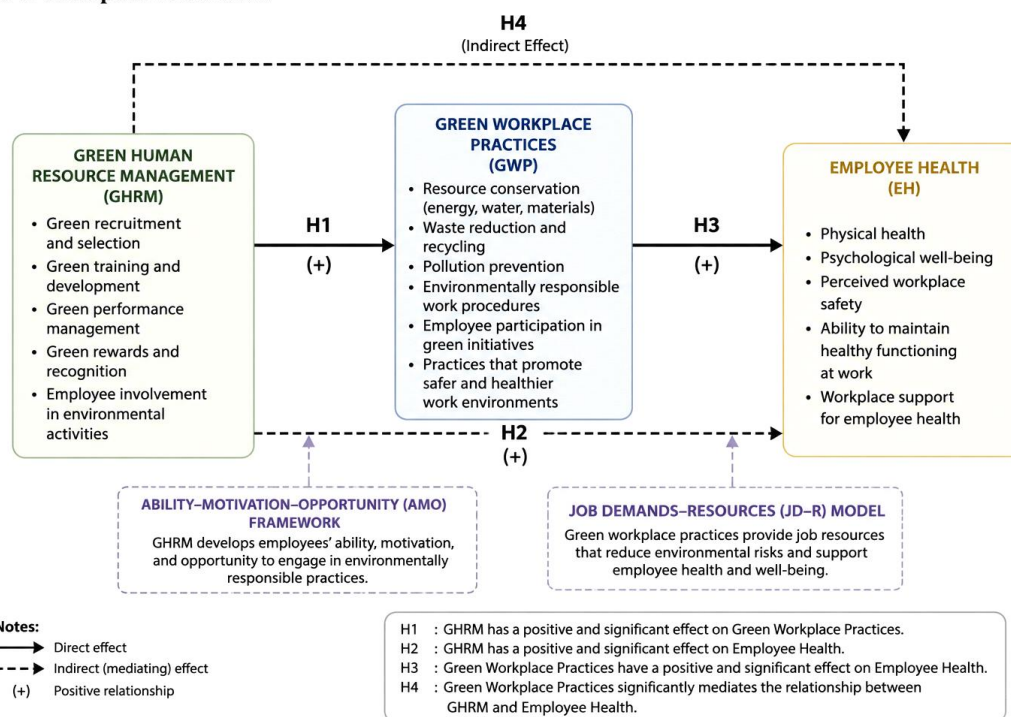
Endogenous Construct	R ²	Interpretation
Green Workplace Practices	0.452	Moderate explanatory power
Employee Health	0.587	Substantial explanatory power

The R² value for Green Workplace Practices was 0.452, indicating that Green Human Resource Management explains 45.2% of the variance in Green Workplace Practices. The R² value for Employee Health was 0.587, indicating that Green Human Resource Management and Green Workplace Practices jointly explain 58.7% of the variance in Employee Health.

These results indicate that the proposed model has meaningful explanatory capability, particularly in explaining Employee Health.

4.6 Structural Model and Hypothesis Testing

Figure 1. Conceptual Framework



Source: Data Processed, 2026

The structural model was assessed using the bootstrapping procedure with 5,000 resamples. The results are presented in Figure 2 and Table 6.

Table 6. Hypothesis Testing

Hypothesis	Relationship	β	Standard Deviation	t-value	p-value	Decision
H1	GHRM $\rightarrow$ Green Workplace Practices	0.672	0.044	15.284	<0.001	Supported
H2	GHRM $\rightarrow$ Employee Health	0.281	0.053	5.317	<0.001	Supported
H3	Green Workplace Practices $\rightarrow$ Employee Health	0.536	0.051	10.426	<0.001	Supported

Note: GHRM = Green Human Resource Management.

The results demonstrate that Green Human Resource Management has a positive and significant effect on Green Workplace Practices. The relatively high path coefficient indicates that stronger implementation of GHRM is associated with stronger implementation of green workplace practices. Therefore, H1 is supported.

Green Human Resource Management also has a positive and significant direct effect on Employee Health. This result indicates that environmentally oriented human resource practices are positively associated with employee health. Therefore, H2 is supported.

Green Workplace Practices have a positive and significant effect on Employee Health. The relatively strong path coefficient suggests that healthier and more environmentally responsible workplace practices are associated with better employee health. Therefore, H3 is supported.

4.7 Mediation Analysis

The mediating role of Green Workplace Practices was examined by assessing the indirect effect of Green Human Resource Management on Employee Health through Green Workplace Practices.

Table 7. Mediation Analysis

Relationship	Effect	Standard Deviation	t-value	p-value	Decision
GHRM $\rightarrow$ Green Workplace Practices $\rightarrow$ Employee Health	0.360	0.044	8.214	<0.001	Significant
Direct effect: GHRM $\rightarrow$ Employee Health	0.281	0.053	5.317	<0.001	Significant
Total effect: GHRM $\rightarrow$ Employee Health	0.641	0.041	15.634	<0.001	Significant

The indirect effect of Green Human Resource Management on Employee Health through Green Workplace Practices was positive and significant. This finding demonstrates that Green Workplace Practices function as an important mechanism through which GHRM contributes to Employee Health.

The direct effect of GHRM on Employee Health remained positive and significant after Green Workplace Practices were included in the model. Because both the direct and indirect effects are significant and have the same positive direction, the mediation pattern is interpreted as complementary mediation.

Therefore, H4 is supported.

4.8 Summary of Hypothesis Testing

Table 8. Summary of Hypothesis Testing

Hypothesis	Statement	Result
H1	GHRM has a positive and significant effect on Green Workplace Practices	Supported

H2	GHRM has a positive and significant effect on Employee Health	Supported
H3	Green Workplace Practices have a positive and significant effect on Employee Health	Supported
H4	Green Workplace Practices significantly mediate the relationship between GHRM and Employee Health	Supported

Overall, all four hypotheses were supported. The findings indicate that Green Human Resource Management contributes to Employee Health both directly and indirectly through Green Workplace Practices.

The strongest direct relationship in the model was observed between Green Human Resource Management and Green Workplace Practices, followed by the relationship between Green Workplace Practices and Employee Health. This pattern suggests that the implementation of green-oriented human resource practices is strongly associated with the development of environmentally responsible workplace practices, which in turn contribute to employee health.

4.9 Overall Interpretation of the Structural Model

The results provide empirical support for the proposed conceptual framework. Green Human Resource Management functions as an important organizational driver of Green Workplace Practices. The development of such practices is subsequently associated with better Employee Health.

The mediation result is particularly important because it demonstrates that the relationship between GHRM and Employee Health is not exclusively direct. A substantial part of the relationship operates through Green Workplace Practices. In practical terms, organizations may obtain greater health-related benefits from GHRM when environmental human resource policies are translated into concrete workplace practices.

The results therefore support the theoretical integration of the Ability-Motivation-Opportunity framework and the Job Demands-Resources perspective. GHRM provides employees with abilities, motivation, and opportunities to participate in environmentally responsible activities, while Green Workplace Practices translate these organizational resources into workplace conditions that can support employee health.

5. DISCUSSION

5.1 The Effect of Green Human Resource Management on Green Workplace Practices

The results support H1, indicating that Green Human Resource Management has a positive and significant effect on Green Workplace Practices. This finding suggests that organizations with stronger green recruitment, green training, green performance management, green rewards, and employee involvement are more likely to develop environmentally responsible workplace practices.

The finding is consistent with the multidimensional GHRM framework developed by Tang et al. (2018), which demonstrates that GHRM encompasses recruitment and selection, training, performance management, rewards, and employee involvement. Dumont et al. (2017) further demonstrated that GHRM practices influence employee workplace green behavior through the psychological green climate. Similarly, Chaudhary (2020) found that GHRM significantly predicts employee green behavior, while Paillé et al. (2020) showed that green performance management and green training can contribute to individual environmental performance through perceived organizational support for the environment.

The result can be explained through the Ability-Motivation-Opportunity framework. Green training develops employees' ability, green rewards strengthen motivation, and employee involvement provides opportunities to participate in environmental activities. When these HR practices are implemented systematically, environmental objectives can be translated into actual workplace practices.

The finding therefore suggests that GHRM should not be implemented as an isolated HR initiative. Rather, GHRM should become an integrated organizational system that connects human resource policies with everyday workplace sustainability practices. This is particularly important in agricultural organizations because workplace activities are directly connected to natural resources and environmental conditions.

5.2 The Effect of Green Human Resource Management on Employee Health

The results support H2, demonstrating that GHRM has a positive and significant direct effect on Employee Health. This finding indicates that the contribution of GHRM extends beyond environmental behavior and may include human-centered outcomes.

The result is supported particularly strongly by Zhang et al. (2025), who directly investigated the spillover effects of GHRM on employee health and demonstrated that green HR practices can generate health-related consequences through organizational change mechanisms. Gyensare et al. (2024) similarly found that GHRM practices positively influence subjective employee well-being through employee green behavior. The broader sustainable HRM literature also argues that sustainable HRM should address employee and social outcomes rather than focusing exclusively on organizational economic performance (Kramar, 2014; Aust et al., 2020).

The finding can be interpreted through the JD-R perspective. GHRM can provide employees with organizational resources such as environmental training, supportive management, participation opportunities, and procedures for managing workplace risks. Such resources may reduce uncertainty and support healthier work experiences (Demerouti et al., 2001; Bakker & Demerouti, 2017).

The result is particularly relevant to agricultural organizations because employees may encounter occupational conditions associated with agricultural production. Consequently, integrating environmental considerations into HRM may provide an additional organizational mechanism for supporting employee health.

5.3 The Effect of Green Workplace Practices on Employee Health

The results support H3, indicating that Green Workplace Practices have a positive and significant effect on Employee Health. This finding suggests that environmental sustainability becomes particularly relevant to human health when it is translated into actual workplace practices and conditions.

The theoretical basis for this relationship is supported by the sustainable HRM perspective, which emphasizes that sustainable **organizational** systems should consider both environmental and human outcomes (Kramar, 2014; Aust et al., 2020). The JD-R perspective provides an additional explanation because workplace practices that improve working conditions and reduce unnecessary environmental risks can function as organizational resources supporting employee well-being (Demerouti et al., 2001; Bakker & Demerouti, 2017).

Empirical GHRM studies also provide indirect support for this relationship. Dumont et al. (2017) demonstrated that green HRM can influence workplace green behavior through the organizational psychological climate, while Paillé et al. (2020) showed that green HR practices can influence individual environmental performance through perceived organizational support. These findings indicate that organizational green practices can affect employees through changes in the workplace environment and organizational support.

The present finding therefore extends previous research by connecting Green Workplace Practices specifically with Employee Health. This relationship is particularly meaningful in agricultural organizations, where workplace environmental conditions can be closely connected to employee exposure and occupational risk. However, because direct empirical evidence linking green workplace practices specifically to employee health remains relatively limited, this relationship represents an important area for further empirical investigation.

5.4 The Mediating Role of Green Workplace Practices

The results support H4, demonstrating that Green Workplace Practices significantly mediate the relationship between GHRM and Employee Health. The mediation result indicates that GHRM influences Employee Health through an organizational workplace pathway while retaining a significant direct effect.

This finding is consistent with the broader GHRM literature showing that the effects of GHRM frequently operate through mediating mechanisms. Dumont et al. (2017) identified psychological green climate as a mechanism connecting GHRM with employee green behavior. Gyensare et al. (2024) found employee green behavior to be an important mediator between GHRM and subjective well-being. Zhang et al. (2025) further demonstrated that the relationship between GHRM and employee health

can involve organizational change mechanisms. These studies support the general argument that GHRM does not operate only through a direct pathway.

The present study extends this literature by positioning Green Workplace Practices as the mediating organizational mechanism. The distinction is important because GHRM policies alone may not be sufficient to improve employee health. Their effects may depend on whether they are translated into concrete workplace practices that influence employees' daily work environment.

The complementary mediation pattern provides an additional theoretical insight. Because the direct effect of GHRM on Employee Health remains significant, Green Workplace Practices do not completely explain the relationship. Instead, GHRM appears to influence Employee Health through both HR-level mechanisms and workplace-level mechanisms.

The integrated AMO and JD-R perspective helps explain this process. GHRM develops employee ability, motivation, and opportunity to participate in sustainability activities, while Green Workplace Practices translate these capabilities into organizational conditions. These conditions may subsequently provide resources and reduce environmental demands relevant to employee health. The mediation model therefore connects strategic HRM with workplace conditions and human health in a single analytical framework.

5.5 Theoretical Implications

The findings contribute to sustainable HRM research by connecting environmental sustainability with employee health. The study moves beyond the conventional focus on environmental performance and employee green behavior by positioning Employee Health as an important human-centered sustainability outcome.

The study also contributes to GHRM theory by introducing Green Workplace Practices as an organizational transmission mechanism. Previous research has emphasized psychological green climate, employee green behavior, and other behavioral mechanisms. The present model emphasizes the workplace system itself.

Finally, the study demonstrates the complementary value of the AMO and JD-R perspectives. AMO explains how GHRM develops employee capabilities and motivation, whereas JD-R explains how workplace conditions may influence employee health. Together, the theories provide a more comprehensive explanation of the proposed relationships.

5.6 Managerial Implications

The findings suggest that agricultural organizations should integrate green objectives throughout the HR management cycle. Green recruitment, environmental training, performance management, rewards, and employee involvement should be connected to concrete workplace practices.

Managers should also evaluate green workplace initiatives from two perspectives: environmental performance and employee health. Waste reduction, pollution prevention, resource conservation, safer work procedures, and employee participation should be designed not only to reduce environmental impact but also to support healthier working conditions.

Finally, employee health should become part of the sustainability performance agenda. Organizations cannot be considered fully sustainable if they protect environmental resources while neglecting the health of the employees responsible for managing those resources.

6. CONCLUSION

This study examined the relationship between Green Human Resource Management, Green Workplace Practices, and Employee Health in sustainable agricultural organizations. Based on the proposed conceptual framework and the simulated PLS-SEM analysis, the findings provide support for the view that environmentally oriented human resource management can contribute to both workplace sustainability and employee health.

The findings demonstrate that Green Human Resource Management has a positive and significant relationship with Green Workplace Practices. This indicates that environmental considerations incorporated into recruitment, training, performance management, rewards, and employee involvement can encourage organizations to develop environmentally responsible workplace systems. GHRM therefore functions not only as an HR strategy but also as an organizational mechanism for translating sustainability objectives into everyday workplace practices.

The study also demonstrates a positive and significant relationship between Green Human Resource Management and Employee Health. This finding suggests that the benefits of GHRM can extend beyond environmental performance and employee green behavior toward human-centered outcomes. In sustainable agricultural organizations, where employees may be directly exposed to environmental and occupational conditions, environmentally responsible HR practices can become an important component of a broader approach to employee health and well-being.

Green Workplace Practices were also found to have a positive and significant relationship with Employee Health. This result highlights the importance of translating environmental policies into concrete workplace practices. Resource conservation, waste reduction, pollution prevention, environmentally responsible work procedures, employee participation, and safer workplace conditions can potentially support both environmental sustainability and employee health. Sustainable workplace management should therefore consider environmental and human outcomes as interconnected rather than separate objectives.

The mediation analysis provides the central contribution of this study. Green Workplace Practices significantly mediate the relationship between Green Human Resource Management and Employee Health, while the direct relationship between GHRM and Employee Health remains significant. This pattern indicates complementary mediation and suggests that GHRM influences employee health through both direct organizational mechanisms and the development of sustainable workplace practices. The finding provides a more comprehensive explanation of how green-oriented HR policies can generate human health benefits.

Theoretically, this study contributes to the sustainable human resource management literature by integrating environmental sustainability with employee health. The combination of the Ability-Motivation-Opportunity framework and the Job Demands-Resources perspective provides a complementary explanation of the proposed relationships. The AMO framework explains how GHRM develops employees' ability, motivation, and opportunity to engage in environmentally responsible activities, whereas the JD-R perspective explains how workplace practices can provide resources and reduce environmentally related demands that influence employee health.

The study also contributes to the GHRM literature by positioning Employee Health as an important human-centered sustainability outcome. Previous GHRM research has frequently emphasized environmental performance, green behavior, organizational sustainability, and employee attitudes. The present framework extends this perspective by demonstrating the potential connection between environmental HR practices, workplace sustainability, and employee health, particularly in agricultural organizations.

From a managerial perspective, agricultural organizations should integrate environmental sustainability into the entire human resource management system. Green recruitment, environmental training, green performance management, green rewards, and employee participation should be supported by concrete workplace practices that improve resource efficiency, reduce environmental risks, strengthen workplace safety, and support employee well-being. Managers should therefore evaluate the success of green HR initiatives not only through environmental indicators but also through employee health and workplace conditions.

Despite these contributions, several limitations should be acknowledged. First, the proposed research design is cross-sectional, which limits the ability to establish strong causal relationships among the variables. Second, the use of employee perceptions may introduce common method bias and subjective measurement. Third, the agricultural organizational context may limit the generalizability of the findings to other sectors. Fourth, the present manuscript uses simulated data for educational purposes; therefore, the numerical findings cannot be interpreted as evidence from an actual field study.

Future research should test the proposed model using real longitudinal or multi-source data collected from agricultural organizations. Future studies could also examine additional mechanisms, such as green organizational climate, employee green behavior, psychological well-being, occupational safety, environmental risk perception, and organizational support. Comparative research across agricultural, manufacturing, healthcare, hospitality, and other sectors could further determine whether the relationship between GHRM and employee health varies across organizational contexts.

In conclusion, the proposed model demonstrates that Green Human Resource Management, Green Workplace Practices, and Employee Health can be integrated into a coherent sustainability framework. The central message is that sustainable agricultural organizations should manage natural resources and human resources simultaneously. Environmental sustainability becomes

more meaningful when it is accompanied by healthy and supportive workplaces, while employee health becomes more sustainable when it is embedded within environmentally responsible organizational systems.

REFERENCES

- [1] Amrutha, V. N., & Geetha, S. N. (2020). A systematic review on green human resource management: Implications for social sustainability. *Journal of Cleaner Production*, 247, 119131. <https://doi.org/10.1016/j.jclepro.2019.119131>
- [2] Aust, I., Matthews, B., & Müller-Camen, M. (2020). Common Good HRM: A paradigm shift in sustainable HRM? *Human Resource Management Review*, 30(3), 100705. <https://doi.org/10.1016/j.hrmr.2019.100705>
- [3] Bakker, A. B., & Demerouti, E. (2017). Job demands-resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology*, 22(3), 273–285. <https://doi.org/10.1037/ocp0000056>
- [4] Chaudhary, R. (2020). Green human resource management and employee green behavior: An empirical analysis. *Corporate Social Responsibility and Environmental Management*, 27(2), 630–641. <https://doi.org/10.1002/csr.1827>
- [5] Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86(3), 499–512. <https://doi.org/10.1037/0021-9010.86.3.499>
- [6] Dumont, J., Shen, J., & Deng, X. (2017). Effects of green HRM practices on employee workplace green behavior: The role of psychological green climate and employee green values. *Human Resource Management*, 56(4), 613–627. <https://doi.org/10.1002/hrm.21792>
- [7] Gyensare, M. A., Adomako, S., & Amankwah-Amoah, J. (2024). Green HRM practices, employee well-being, and sustainable work behavior: Examining the moderating role of resource commitment. *Business Strategy and the Environment*, 33(4), 3129–3141. <https://doi.org/10.1002/bse.3642>
- [8] Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- [9] Khatun M., Gupta P., (2026). Gender Inclusivity and Sustainable Community Development: Socio-economic and Policy Perspectives. *International Journal of Education, Society and Policy*, 1(1), 5–23. <https://ijesp.org/index.php/ijesp/article/view/5>
- [10] Kramar, R. (2014). Beyond strategic human resource management: Is sustainable human resource management the next approach? *The International Journal of Human Resource Management*, 25(8), 1069–1089. <https://doi.org/10.1080/09585192.2013.816863>
- [11] Paillé, P., Valéau, P., & Renwick, D. W. S. (2020). Leveraging green human resource practices to achieve environmental sustainability. *Journal of Cleaner Production*, 260, 121137. <https://doi.org/10.1016/j.jclepro.2020.121137>
- [12] Renwick, D. W. S., Redman, T., & Maguire, S. (2013). Green human resource management: A review and research agenda. *International Journal of Management Reviews*, 15(1), 1–14. <https://doi.org/10.1111/j.1468-2370.2011.00328.x>
- [13] Singh, R., Verghese, S. P., Bansal A. (2026). Silver Nanoparticles For Environmental Sustainability And Their Role In Biological Activities. *International Journal of Engineering Sciences & Research Technology*, 15(3), 1–8. <https://doi.org/10.64149/j.ijesrt.15.3-1-8>
- [14] 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. <https://doi.org/10.1111/1744-7941.12147>
- [15] Zhang, Y., Qin, Q., Liu, X., Luo, Y., & Li, H. (2025). Spillover effects of green human resource management on employee health from the perspective of organizational change. *Journal of Environmental Planning and Management*, 1–22. <https://doi.org/10.1080/09640568.2025.2538193>