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## REVIEW

# Enhancing Organizational Sustainability through Green HRM: A Conceptual Review

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## ABSTRACT

This study delves into Green Human Resource Management (GHRM) as well as its link with organizational sustainability. Through a review of literature, this research hopes to fathom the place of eco-sustainability in employee involvement and enhancing environmental responsibility via Green HRM. The main aim of this study is to thoroughly examine the literature on GHRM and its contribution to improving organizational sustainability through employee engagement and diminished environmental impact. The PRISMA guidelines were utilized in this conceptual review in order to investigate the impact that Green HRM has on the sustainability of organizations. The results show that Green HRM is vital for organizational sustainability since it reduces their ecological footprint, raises employee morale, and improves reputation. Additionally, the study emphasizes the significance of including Green HRM practices into organizational strategies and operations so as to achieve long-term sustainability. Findings indicate that through implementing green HRM practices organizations can record increased employee engagement levels, reduced turnover rates and improved customer satisfaction. Moreover, there

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are lower costs associated with green human resource management practices because of less waste and a better image for the brand. Nonetheless, some challenges and constraints towards change have been observed in relation to the implementation of these practices by companies. This study therefore gives an overview of how green HRM enhances organizational sustainability, thereby urging firms to adopt sustainable HR practices for successful operations in the future. These findings are important for human resource professionals, policymakers, or organizations who want to embed sustainability into their business strategy.

Keywords: Green HRM; Sustainability; Sustainable Development; Organizations; Developing Country

## 1. Introduction

Today's fast-moving business environment is characterized by many organizations that are under extreme pressure as they seek a balance between their economic interests on one hand and social as well as environmental responsibilities on the other hand for the purpose of ensuring their survival in the long term<sup>[1]</sup>. Organizations have had cause for concern about sustainable development, but the human resources department plays a critical role in thte realization of this goal. The concept of Green Human Resource Management (HRM) has emerged as an essential component of organizational sustainability, which focuses on integrating environmental considerations into HR practices<sup>[2]</sup>. Gazi et al.<sup>[3]</sup> add that this is not only morally justified but also strategically relevant; hence it is a must for organizations that are aiming at being competitive and maintaining their reputation.

Consequently, this has led to the development of the Green HRM concept. Throughout the entire organization Green HRM refers to the adaptation of environmentally friendly practices<sup>[4]</sup>. This comprises employee involvement, training and development programs that encourage environmental consciousness and responsibility<sup>[5]</sup>. It is necessary for organizations to have Green HRM in order to make a positive contribution towards environmental reduction, enhance employee well-being and build their reputation<sup>[6]</sup>. In other words, Green HRM presents itself as an efficient management approach that takes sustainability responsibilities on one hand and relies on human resource capabilities for delivering sustainability objectives on the other<sup>[7]</sup>. Nonetheless, little is known about how exactly Green HRM can promote organizational sustainability through its implementation strategies. Thus, this paper provides timely insights to both researchers and practitioners alike. For practitioners, it provides ways in which human resources practices are supportive towards the adoption and implementation of organizational sustainability. Progressing practical reporting of Green HRM requires detailed knowledge about human resources management practices that are relevant for structures vital for attaining organizational sustainability. Furthermore, one of the most crucial issues resulting in irreversible damage to our planet is environmental degradation according to scientists and policymakers<sup>[8]</sup>.

The rapid advancement in technology and industrialization has significantly aggravated concerns with regard to environmental destruction problems<sup>[9]</sup>. At present many firms are taking incremental steps towards reducing their ecological footprints. Organizations can utilize corporate social responsibility (CSR) as one approach among others that seeks to address their environmental performance issues<sup>[10]</sup>.

Green Human Resource Management (HRM) represents a fundamental element that drives organizational sustainability according to Renwick et al.<sup>[11]</sup> while it expands traditional HRM practices to handle environmental matters and reduce business-generated pollution. Green HRM leads to concrete sustainable achievements while promoting various organization-wide practices<sup>[12]</sup>. The leading effort in this area involves decreasing carbon gas production. Organizations adopt green policies through flexible working hours and remote work to decrease emissions that result from employee commuting<sup>[6]</sup>. Amazon provided remote work policies that resulted in significant decreases in employee commuting emissions, according to the company report<sup>[12]</sup>. Through these workplace policies, organizations successfully lower their environmental impact and benefit their employees by lowering commuting-related stress and work-life imbalance, which improves productivity and enhances job satisfaction<sup>[6]</sup>. The practice of Green HRM stands essential in creating sustainable supply chain management systems. When organizations include environmental elements in their procurement

systems, they succeed in minimizing their total environmental impact<sup>[13]</sup>. The organization seeks sustainable suppliers and manages its supply chain by cutting packaging waste while selecting partners who demonstrate excellent environmental performance. Unilever's 'Zero Deforestation Policy' demonstrates this strategy as the company verifies palm oil suppliers conduct sustainable practices to protect biodiversity and reduce deforestation impacts<sup>[12]</sup>. The organization's predictively pro-environmental strategy protects both its operational environment and its reputation while drawing environmentally responsible consumers and financiers<sup>[6]</sup>.

Green HRM requires employee education in addition to employee engagement. Organizational workforce sustainability becomes a reality when organizations offer sustainability-focused training programs and workshops together with volunteer opportunities<sup>[14]</sup>. The IKEA Sustainability Team, comprised of employee members, serves as a stellar model because staff members both discover sustainable measures and execute energy-saving strategies throughout the organization<sup>[15, 16]</sup>. These programs make workers into environmental advocates who protect their workplace while educating others outside the workplace about environmental issues. Waste reduction combined with recycling programs functions as vital elements of Green HRM<sup>[6]</sup>. Organizations can minimize their waste generation by establishing wide-ranging recycling schemes together with composting solutions and waste management projects that produce energy. Through its zero-waste-to-landfill approach enabled by thorough waste management programs Google shows that businesses can effectively decrease their environmental effect<sup>[12]</sup>. Organizations reduce landfill weight while protecting natural resources through their waste management strategies which establish cycles for economic sustainability<sup>[6]</sup>. Due to Green HRM standards, organizations should implement Diversity, Equity, and Inclusion (DEI) practices that support sustainability objectives. Organizations should advance diversity, equality, and inclusion by letting various stakeholders help in sustainability projects while providing environmentally sustainable goods and services to everyone fairly and working to reduce environmental inequalities<sup>[17, 18]</sup>. Through its Environmental and Social Responsibility initiatives, Patagonia acts as an example of this approach by using funds to help disadvantaged groups impacted by environmental issues<sup>[12]</sup>. The universal approach makes sure sustainability initiatives provide advantages to every member of society while fixing established social imbalances<sup>[19]</sup>. The way organizations engage with their stakeholders while communicating with them influences the development of trust and the achievement of transparency<sup>[12, 20–22]</sup>. Sustainable human resource management practices teach organizations to involve their stakeholders when preparing sustainability updates about both the environment and social programs. The Environmental Responsibility Report from Apple issues comprehensive data about sustainability initiatives and their development to maintain stakeholder transparency and responsibility<sup>[23]</sup>. Through open communication the organization builds trust with people so its reputation strengthens and provides long-term sustainability.

As a necessary component organizations must have strong leadership and governance for achieving sustainability within their operations. The implementation of Green HRM practices requires sustainability-oriented leadership groups with defined environmental goals and framework policies that maintain enduring sustainability. Microsoft implements Sustainability Governance as a framework that uses definitive sustainability targets to show leadership dedication towards environmental protection<sup>[12, 23]</sup>. A well-organized hierarchical method integrates sustainability into every organizational process to create enduring sustainable change.

However, two engineers came together to propose another strategic ingredient for handling the negative environmental impacts of organizations, known as Green HRM. According to Gazi et al.<sup>[24]</sup>, one of the important functions of the HRM regarding environmental management is attracting talented individuals that share environmental values, values that correspond with those of the organizations. Moreover, HRM reported that employee involvement is a key factor in making it<sup>[25]</sup>; however, this position is supported by theories of HRM which confirm that the behavior and attitudes of employees determine the ability of a company to innovate in response to pressures to incorporate sustainability within daily activities.

The prime objective of this research is therefore to systematically assess most studies on green human resource management (Green HRM) and evaluate its current framework in terms of supporting organizational sustainability. Moreover, despite a significant increase over time in Green HRM literature development, there hasn't been any review that pulls together and synthesizes a broad spectrum of literature on green human resource management focusing more on its nexus with organizational sustainability. Additionally, the existence of such discord implies the need for a systematic review that could provide an up-to-date synthesis about empirical findings and key theories and mechanisms underlying the greening of human resource practices as well as its impact on firm performance.

In addition, the current study combines research and standard practice in order to thoroughly critique existing literature on Green HRM regarding its ongoing growth and maturation process while also setting a new stage for future empirical and theoretical research endeavors. This review aims at shedding light into previous studies concerning Green HRM's relationship with sustainable business operations in order to contribute significantly towards expanding the body of knowledge pertaining to this field. Additionally, the conclusion will provide recommendations suggesting how companies can improve their sustainability efforts for a greener tomorrow.

The implementation of Green HRM practices leads to better organizational sustainability because they decrease environmental impact and create real-world sustainable achievements. Organizations that utilize effective practices for carbon emission reduction and sustainable supply chain development while providing employee education and waste reduction, promoting diversity and stakeholder engagement and establishing proper leadership and governance mechanisms will achieve meaningful environmental achievement and sustainable business growth. Such sustainability initiatives result in dual environmental benefits and create positive effects on company reputation as well as talent acquisition and retention and stronger financial outcomes.

A Conceptual Review of Organizational Sustainability through Green HRM points out multiple essential research gaps that necessitate additional exploration of Green Human Resource Management (GHRM) effects on sustainability. The breakdown in quantitative assessment of GHRM's effectiveness exists across multiple industries and cultural backgrounds particularly within thin research areas of developing countries. Research papers at present mainly focus on theoretical aspects of GHRM whereas they do not incorporate standardized evaluation methods that provide a complete understanding of GHRM practices. Research on how green technologies can work synergistically with GHRM remains insufficiently explored because of limited attention in this area. The implementation of GHRM depends heavily on leadership, yet research lacks exploration of leadership styles that specifically support these practices effectively. The research value of extended temporal analyses allows GHRM studies to follow transformations accurately and scientists need further evaluation of employee sustainability influences. The evaluation of specific sectors in research would produce beneficial results because most recent studies concentrate exclusively on individual business industries. Additional research on these unexplored areas will enhance critical understanding of GHRM sustainability strategies thus supplying essential knowledge for those practicing green HR.

## 2. Literature Review

Currently, businesses have faced increased pressure due to tighter regulations from governments as they seek cleaner technologies and sustainable business models that promote energy efficiency. Additionally, organizations are now striving towards becoming carbon neutral through reducing their environmental impact as a way of preserving the limited natural resources. These recent developments have made human resource management (HRM) managers be at the forefront in ensuring sustainable business organizations are formed and operated in the right way. In relation to this, this paper seeks to explore Green HRM as well as its role in enhancing organizational sustainability.

Green Human Resource Management plays a vital role according to literature reviews for promoting organizational sustainability using combined theoretical foundations and empirical research evidence. Research about Green HRM primarily investigates individual elements of the practice through studies measuring employee connection or environmental outcomes<sup>[26, 27]</sup>. The research analyzes how emerging technologies combine with employee participation and Green HRM to solve organizational challenges in practice integration according to Dimitriadis et al.<sup>[28]</sup>. This study develops a complete framework that strengthens existing Green HRM understanding through participatory workplace strategies while offering operational guidance to implement practices<sup>[29]</sup>. Green HRM practices used effectively create committed employees who produce better performance with reduced environmental consequences for the organization. This research adds to modern sustainable business understanding through its exploration of Green HRM's technological relationship with employee engagement so organizations can succeed in environmentally sensitive markets.

### 2.1. Theoretical Framework

### 2.1.1. Triple Bottom Line (TBL) Model

The Triple Bottom Line (TBL) model, developed by John Elkington in 1994, is a widely accepted framework for understanding the concept of sustainability in business and organizations. The TBL model posits that organizations should strive to achieve three interdependent goals: economic success, social responsibility, and environmental sustainability. Economic success refers to a company's financial performance and profitability, while social responsibility encompasses an organization's impact on society and its stakeholders. On the other hand, 'environmental sustainability' refers to an organization's effect on nature. The TBL model emphasizes that these three aspects are interconnected whereby economic prosperity cannot occur without undertaking socially responsible activities and promoting environmental conservation. For green HRM practices within firms, the TBL model can explain how such operations affect overall institutional endurance. Looking at it from another angle, when green HRM is incorporated into HR policies, this may also lead to improvement of both corporate social responsibility and profit through sustainable development.

Therefore, companies can enhance their economic growth through integrating Green HRM into their operations which will promote not only environmental but also social responsibility, hence improving upon their financial performance results<sup>[18, 29]</sup>. The TBL model has been implemented in different sectors and industries such as manufacturing, healthcare, and finance. For example, it was found that the Indian companies which implemented green HRM could reduce their energy use and greenhouse gas emissions<sup>[30]</sup>. Additionally, a study by Gazi et al.<sup>[31]</sup> shows that Norwegian firms' reductions in energy utilization and emissions of greenhouse gases are a result of green HR practices. These studies show how Green HRM can help protect the environment<sup>[32]</sup>.

Besides, TBL also highlights the significance of considering long-term implications of business decisions. In the case of Green HRM, this includes thinking about how employee recruitment and selection processes will affect an organization's environmental footprint over time. This may include, for example, hiring employees who share company values and have strong commitments to environmentally friendly operations, which may establish a culture of sustainability within an organization<sup>[25]</sup>. Equally important is providing environmental training to workers so they are equipped with the skills and knowledge necessary for sustainable activities. Moreover, TBL underscores the issue of transparency and accountability in sustainability reporting<sup>[15]</sup>. In the Green HRM context, this entails tracking metrics like employee involvement or engagement, waste reduction levels or quantities reduced or recycled through corporate recycling programs, energy consumption rates, among others<sup>[33, 34]</sup>. From these details it is possible to know areas that need improvement and form strategies towards continuous enhancement.

In brief, this framework offers holistic guidance showing how Green HRM impacts organizational sustainability while leading to economic success in different contexts using the TBL model. By applying the TBL model to Green HRM practices organizations can promote environmental sustainability while also enhancing their social responsibility and economic success. As companies grapple with increasing societal pressure to become more eco-friendly, reduce their carbon footprints, and minimize pollution as part of their social responsibilities, it becomes essential to employ such tools as those provided by the Triple Bottom Line approach.

### 2.1.2. Resource-Based View (RBV) Theory

Green Human Resource Management (Green HRM) and organizational sustainability link synergistically through the Resource-Based View (RBV) theory which our research focuses on in detail. According to RBV theory, a company can sustain competitive advantages by harnessing its own valuable, rare, and non-substitutable, and inimitable capabilities and resources. Organizations adopting Green HRM practices obtain unique human resources that develop employee environmental competencies while boosting their operational performance<sup>[32]</sup>. Organizations that develop training programs specifically aimed at sustainability will create workers who excel at environmental innovation tasks that help minimize waste while optimizing resource management, thus supporting corporate sustainability targets<sup>[35]</sup>. Through Green HRM, organizations create cultural change that unites employee values with sustainability goals, thus boosting employee commitment and engagement<sup>[19]</sup>. Organizational engagement with employees through Green HRM practices leads to enhanced sustainable cultures that boost employee morale and decrease turnover rates, thus improving market standing against competitors. Organizations that adopt Green HRM build better reputational value in a market where customers increasingly select businesses with strong environmental responsibility. Organizations that possess intangible assets utilizing Green HRM concepts develop powerful essential elements that boost customer support as well as gather stakeholder approval, particularly from sustainable-focused investors who promote operational success<sup>[27]</sup>.

The execution of Green HRM produces noticeable sustainability impacts that decrease ecological impact alongside increased corporate social responsibility. Organizations can achieve sustainable competitive success against their industry competition by implementing an environmental stewardship culture that uses their human resources as the foundation. Industry processes that use concepts from Green HRM generate innovative methods that reduce operating expenses and environmental impact<sup>[36, 37]</sup>. The connection between Green HRM and sustainability operates in two distinct directions according to the research. Amid success in producing sustainability outcomes from effective Green Human Resource Management practices there emerges a further commitment to implementing Green HRM approaches. Strategic organizational frameworks need Green HRM integration for creating sustainable outcomes in the future<sup>[25]</sup>. The successful integration of sustainability support through human resource capabilities will improve organizational performance and reputation along with resilience which leads to enduring marketplace competitiveness<sup>[13]</sup>. A detailed understanding of Green HRM and sustainability relationships helps practitioners while expanding research about sustainable human resource management.

# 2.2. Green Human Resource Management (HRM)

Green HRM is about putting environmental concerns into human resource management practices for the sake of sustainable development<sup>[38]</sup>. It means that organizations embrace environmentally responsible behaviors within their setup such as energy saving, waste reduction and recycling<sup>[39]</sup>. Employee engagement, training and development, and performance management are some of the methods used to achieve green HRM by managers across different organizations<sup>[40]</sup>.

There have been numerous studies that report on several ways in which green HRM can benefit an organization including cost savings, increased employee motivation and enhanced reputation<sup>[39]</sup>. For example, organizations adopting green HRM practices were found to have low carbon emissions and waste generation when compared with those who did not adopt them. Another study conducted by Gazi et al.<sup>[38]</sup> also indicated that green HR activities were positively associated with employees' commitment levels and their level of engagement with the company. Green Human Resource Management (GHRM) is a newly emerging field that integrates ecological considerations into traditional human resource management practices, focusing on reducing the impact of HR activities on climate change while ensuring longterm organizational sustainability. GHRM encompasses a wide range of activities such as green recruitment, selection, training, performance appraisal, compensation management, and employee relations, among others<sup>[39, 40]</sup>. Additionally, some studies have underscored the importance of global human resource management for environmental sustainability. An example is green recruitment and selection, which contributes positively to companies' ecological and societal performance as shown by Li et al.<sup>[41]</sup>. Furthermore, Bhat et al.<sup>[42]</sup> highlighted how GHRM can be used to achieve sustainability in organizations. Besides, Niazi et al.'s<sup>[43]</sup> study and Yusliza et al.'s<sup>[44]</sup> research showed that GHRM has farreaching positive impacts on organizational environmental performance and corporate social responsibility. Moreover, GHRM has also been related to other organizational advantages such as environmental sustainability. Ahmad<sup>[21]</sup>, Yusliza et al.<sup>[44]</sup> and Wajdi et al.<sup>[45]</sup> highlighted the cost-saving and resource efficiency benefits of GHRM. It adds on to this when the results will be improved when it is noted that GHRM can facilitate employee engagement, motivation and job satisfaction<sup>[46]</sup>.

However, further research is still needed to explore its multi-faceted dimensions and efficacy in different organizational contexts. For instance, research into industry or regionspecific influences of GHRM is underdeveloped. Moreover, there is a need for the development of strong measurement tools that will assess GH practices and outcomes if this field has to grow any further in future<sup>[12, 47]</sup>.

### 2.3. Organizational Sustainability

Organizational sustainability refers to an organization's capability to continue functioning without negatively affecting the environment and society around it<sup>[48]</sup>. This means adopting sustainable mixed practices that take care of people's social aspects while remaining economical in nature<sup>[49]</sup>. These are organizations that focus on long-term goals rather than emphasizing short-term profit-maximization alone; they consider employees, customers, suppliers, as well as the whole community at large among their stakeholders<sup>[50]</sup>. Studies have shown that financially viable businesses that are sustainable outperform those that do not practice sustainable business operations in terms of financial performance like profitability and stock prices as well as employee retention strategies<sup>[51]</sup>. In another example García-Sánchez et al.<sup>[52]</sup> found that sustainable companies had a higher level of job satisfaction and commitment among employees compared with non-sustainable ones.

Organizational sustainability consists of economic, environmental and social dimensions. This leads to long-term value creation by organizations for their stakeholders while ensuring that negative impacts to the environment and society as a whole are minimized<sup>[53]</sup>. Sustainability is now a key concern for businesses due to escalated environmental challenges, social responsibility expectations and shifting consumer patterns. The literature on organizational sustainability underscores the significance of integrating sustainability into core business strategies and operations. In particular, Cheema and Javed<sup>[34]</sup>, Muisyo and Qin<sup>[54]</sup> and Roscoe et al.<sup>[55]</sup> have cited research that highlights the positive relationship between sustainability practices and organizational performance. Sathasivam et al.<sup>[56]</sup> also state that brand reputation can be enhanced; customers attracted who are environmentally conscious as well as improved employee morale through green initiatives.

Nevertheless, achieving organizational sustainability is a complex continuous process that necessitates a holistic approach. This includes challenges such as balancing between economic, environmental and social goals, measurement of sustainability performance among others securing leadership or top executive team commitment towards sustainable development<sup>[57]</sup>. To this end companies need to embrace comprehensive policies on sustainability, establish sustainable cultures and consistently adjust their practices in response to emerging issues.

## 2.4. Integrating Green HRM with Emerging Green Technologies and Innovations

Orderly organizations need to combine Green Human Resource Management practices and emerging green technologies to advance sustainability practices alongside market competitiveness. Green Human Resource Management functions as a strategic alliance with companies to support sustainable practices because organizations understand that they need to implement training programs for their employees who will teach them proper skills for operating and maintaining renewable energy systems including solar panels and wind turbines<sup>[58]</sup>. Organizations can boost employee capability for leveraging new technologies through the identification of skill deficiencies and creation of specific training initiatives according to Renwick et al.<sup>[11]</sup> a targeted recruitment strategy allows organizations to find candidates who possess sustainability expertise, which ensures their workforce has proper knowledge for developing innovative solution methods<sup>[12, 47]</sup>. The multiple talent acquisition methods of Green HRM include forming alliances with universities and holding job events dedicated to sustainability to attract candidates who excel in their skills combined with environmental stewardship dedication. Performance management systems should be restructured with environmental performance indicators for new technology adoption and operational efficiency assessment<sup>[45]</sup>. The targeted measure builds an accountable environment that motivates personnel to participate in sustainability-based initiatives<sup>[30]</sup> establishing environmental performance metrics within evaluation systems enables organizations to encourage employees by making their individual objectives converge with corporate sustainability targets<sup>[10]</sup>. The organization rewards teams that develop successful innovations to increase efficiency levels of new green technology which promotes collective innovation alongside accountability measures. The implementation of Green HRM through engaged employees represents an essential component for deploying green technologies in the organization<sup>[12]</sup>. The practice of employee crowdsourcing through digital platforms has become widespread for organizations that want to optimize their technological initiatives<sup>[15, 37]</sup>. The process of encouraging employee involvement in innovation leads them to develop commitment while accessing their creative ideas which frequently produce creative and effective solutions to environmental problems<sup>[41]</sup>. When organizations deploy an artificial intelligence system for energy optimization they should request employee feedback about operational issues which becomes part of a continuous loop that positively impacts both employee satisfaction as well as technological performance<sup>[59]</sup>.

Organizations need change management as a crucial step for new green technology implementation where Green HRM ensures employees receive proper resources and adaptation support<sup>[41]</sup>. A successful strategy for explaining new system benefits helps reduce staff opposition while building positive technological transformation attitudes<sup>[12]</sup>. Green HRM arranges training events and educational sessions which explain the importance of new green technologies along with answers to workforce concerns combined with evidence of organization-wide attention to employee safety and environmental responsibility<sup>[55, 57]</sup>. Employing practical exposure to new technology enables workers to boost their competence levels and self-assurance in order to adapt successfully<sup>[11]</sup>. Data analytics emerges as a vital area which benefits from uniting Green Human Resources Management with contemporary technological advances<sup>[44, 49]</sup>. Organizations can evaluate their operational environmental effects and measure HR sustainability initiatives through data analytic system tools<sup>[39]</sup>. The gathered data enables organizations to conduct continuous improvements of their green technologies and HR strategies through measurable outcomes<sup>[59]</sup>. Companies that monitor their energy usage can follow data analytics outcomes to discover how specific new technologies decreased energy consumption thereby creating solid reasons to fund additional comparable technologies<sup>[36]</sup>. By combining Green HRM practices with current green technologies firms can create sustainable operations that promote both responsibility and creative behaviors within their organizations. The combination of holistic operations management with employee sustainability initiatives creates market competition by engaging workers in sustainability goals to drive operational success<sup>[11, 28]</sup>. Primary adoption of green technologies by organizations drives their sustainability commitment to permeate throughout their employee base building both resilience and innovation within their business model.

# 3. Methodology

### 3.1. Materials and Methods

This conceptual review employed an inclusive search strategy in order to identify studies that examined how Green Human Resource Management (Green HRM) contributes towards organizational sustainability. To ensure transparency in the search process, PRISMA guidelines were used in this study, which meets Preferred Reporting Items for Systematic Reviews Meta-Analyses standards. Specifically, this study seeks papers dealing with Green Human Resource Management focusing on various objectives while minding future research concerning it among other industries including its subsequent sections from Danese et al.<sup>[60]</sup>, and adapted methodology from Podgorodnichenko et al.<sup>[61]</sup>.

### **3.2.** Conceptual Boundaries

The investigation took into account Green HRM, which is about incorporating ecological and societal matters into Human Resource Management (HRM) strategies for enhancing the long-term survival of the organization. The outcome of this research was to analyze how Green HRM influences organizational sustainability outcomes, mainly environmental performance, employee engagement, as well as business performance.

Applying a triple-bottom line approach defines these concepts. The main search terms were "green Human Resource Management" or "green HRM" or "GHRM". Sustainability performance was evaluated at the individual level as well as the organizational level for all authors. Organizational-level ideas incorporated environmental performance, social sustainability performance, economic sustainability performance and circular economy performance. Individual-level ideas included green behavior, proenvironmental behavior, green values, green culture, and green self-efficacy, which are a few examples of these behavioral outcomes that may be observed among employees in organizations. The intent of this review was to incorporate relevant publications that examined the joining together of GHRM and sustainability while also extensively analyzing the GHRM role in improving sustainability performance within an organizational context. In addition, country and cultural contexts were important factors since research conducted in various countries and industrial sectors can lead to different results. Therefore, these factors have been confirmed in this model. From a theoretical perspective, key issues related to resource-based view, agency theory, natural resource-based theory, stakeholder theory, social cognitive theory, human capital theory, as well as social exchange theory have been identified<sup>[55, 58]</sup>. These theories relate to GHRM-sustainability nexus by providing a general framework for understanding intricate associations between the two.

## 3.3. Inclusion Criteria

This study included articles that met five criteria: firstly, it should be published either in peer-reviewed journals or conference proceedings; secondly, it must be about Green HRM/Green HR practices; thirdly, it looked at the relationship between Green HRM and organizational sustainability outcomes/factors<sup>[15]</sup>; fourthly, it should be written in English; and finally, published between 2010–2022<sup>[5, 59, 68]</sup>.

The search strategies for this study involved Scopus and WoS online databases which served as its search boundaries. Excel was used for deleting repeated titles to avoid duplications. The choice of Scopus and WoS as databases was based on their reputation as trusted sources with wide coverage and easily searchable interfaces. The database search process involved a generic combination of keyword searches using "green Human Resource Management" or "green HRM" or "GHRM" in both databases. Searching in Scopus comprised title, abstract, keywords and GHRM research data were retrieved. In WoS the search query was formed by topic field (TS) with combinations and further narrowed by language section (English) and time span (2012-2023). To exclude other document types such as retractions, letters, retracted publications, editorial materials etc., only articles that were not already restricted to these categories were included in this study due to their relevance for the subject matter under consideration. Based on these sustainability-related data on GHRMs collected by the authors themselves, they examined articles related to triple bottom line (TBL)-sustainability papers (economic-environmental-social). Although searching for articles based on keywords may not produce comprehen-

sive results, this approach is considered the best scientific practice for systematic reviews. While conducting this review, the study period took up the last ten years, 2012–March 2023.

# 3.4. Applying Exclusion Criteria for Initial Screening

However, it was necessary that during the initial screening process studies had to meet certain exclusion criteria to guarantee the credibility of selected works. Those studies which did not focus majorly on green HRM or its components; those that did not investigate the effects of green HRM towards organizational sustainable outcomes; studies published out of the English language; those published beyond the stipulated timeline; and non-empirical designs, among others were excluded from being involved in the systematic literature review process later applied in the present work here too" (**Figure 1**).



Figure 1. PRISMA model.

### 3.5. Validating the Search Results

To confirm the results of the search, Scopus, Web of Science, Google Scholar, Emerald Insight and ScienceDirect were searched in different databases to prove their credibility. Hand searching was also conducted by reviewing the references of included studies and scanning relevant journals and conference proceedings. The search strategy used a combination of keywords relating to Green HRM and Sustainability for completeness.

## 4. Results

The purpose of this research is to assess the involvement of Green Human Resource Management (HRM) in promoting organizational sustainability, where from extensive literature survey it can be concluded that Green HRM has an affirmative bearing on organizational sustainability.

Green Human Resource Management (GHRM) and organizational sustainability nexus emerges as a crucial area of investigation. This conceptual dissection reveals GHRM as a strategic key for attaining sustainability in organizations. By incorporating environmental considerations in human resource practices, GHRM supports a culture of sustainable development resulting in improved ecological performance<sup>[1]</sup>. In addition to its ecological implications, GHRM also exercises social responsibility by improving employees' welfare and satisfaction, creating diversity and inclusion as well as engaging with other stakeholders outside the organization<sup>[43]</sup>. Nevertheless, economic gains are also built into GHRM notwithstanding its strong emphasis on environmental and social realms such as cost savings, resource efficiency or even superior corporate image<sup>[18, 21]</sup>. The main objective of GHRM is to create a green workforce capable enough to steer through the complexities of sustainability<sup>[62]</sup>. Such human capital management in turn facilitates long-term success for organizations. At the same time, however, it must be noted that effective implementation of GHRM depends on contextual factors specific to an organization's industry and region of operation<sup>[6]</sup>. Therefore although this review provides insight into how GHRM may enhance organizational sustainability theoretically, empirical study is required to test these findings while considering practical issues related to applying such principles. In conclusion, therefore, it is evident that organizations need to consider using green human resource management so that they maintain economic growth while at the same time safeguarding the environment and ensuring social justice.

The literature review demonstrates that Green HRM affects organizational sustainability significantly. Consequently, Bartolomeo et al.<sup>[27]</sup> research portrayed that these

practices are positively related to the organization's sustainability because they minimize the environmental footprint of an organization and develop its social responsibility<sup>[23]</sup>. Similarly, 29 et al.<sup>[7]</sup> revealed that such practices involving activities like training and development have a direct bearing on employee engagement and commitment, thus having an influence on sustainability<sup>[63]</sup>. In another study by Gazi et al.<sup>[64]</sup> the researchers conducted a meta-analysis whereby they established that Green HRM had significant correlations with employee commitment as well as job satisfaction, hence imperative for organizations' survival in the long run<sup>[65]</sup>. Ehnert<sup>[47]</sup> also found out that these practices were associated with higher performance levels in business entities and their image, which are some of the indicators of sustainable development<sup>[66]</sup>.

Furthermore, Gao et al.<sup>[50]</sup> realized that Green HRM practices relating to innovation as well as entrepreneurship are paramount for sustainable development purposes in various organizations, including small enterprises all over the world; this was supported through research by Zhu et al.<sup>[67]</sup> who argued that better employee wellness in terms of health is important if a company is to become more sustainable among other issues. In this pertinent, Yasin et al.<sup>[68]</sup> provide evidence from a systematic review showing green HRM practice has positive impacts on financial results, customer satisfaction and employee involvement. In other similar studies<sup>[44, 58, 61]</sup>, researchers found that green human resource management has a positive relationship with organic adaptability and resilience among different companies making it very crucial for sustainable growth plans.

This study concludes that Green HRM has a substantial effect on organizational sustainability. The proof demonstrates that there is the possibility of enhancing performance, reputation, innovation, and entrepreneurialism; employee commitment and engagement; well-being and health; adaptability, and resilience via adopting green HRM practices.

## 5. Discussion

This study intends to explore the role of Green Human Resource Management (Green HRM) in improving organizational sustainability. The findings of the present investigation suggest that Green HRM is a fundamental element of organizational sustainability, as it enables organizations to cut back on their environmental impact, improve employee welfare and enhance their reputation.

Through the TBL model, one can understand the link between Green HRM, organizational sustainability and economic success. This model shows that these three pillars are interrelated with each other; hence economic success cannot be achieved without social responsibility and environmental sustainability. This research finds out that green human resource management could aid all three pillars by attracting employees who share environmental values while promoting or providing training opportunities on environmental issues; measuring and reporting sustainability metrics.

The findings of this conceptual review underscore the pivotal role of Green Human Resource Management (GHRM) in propelling organizations towards sustainability. By integrating green considerations into human resources practices, GHRM becomes a strategic lever for achieving triple bottom line goals: profitable business operations, corporate citizenship and sustainable development globally. Literature consistently reveals that GHRM approaches such as green recruitment, training and performance management have significantly enhanced organizational sustainability. Organizations can reduce their ecological footprint through cultivating workers with environmental awareness and competencies, thereby mitigating environmental risks while enhancing their social reputation. Additionally, GHRM promotes a sustainable cultural milieu of engaged workforce characterized by innovation cultures, active worker participation in decision-making through consultation practices leading to shared understanding towards collective efforts for conserving nature.

However, there remain numerous obstacles as well as opportunities for future research despite the apparent advantages of GHRM. There are still gaps in measuring and evaluating the effectiveness of GHRM practices on an organization's ability to sustain itself. To assist them in monitoring progress made so far and areas needing improvement, they need effective metrics and frameworks for assessing GHRM performance involving evaluation systems which allow comparison across different industries. The leadership role in spearheading GHRM initiatives is vital. One needs to create a favorable environment and a supportive leadership structure that will foster the implementation of GHRM and ensure it becomes part of the organizational culture towards sustainability. It is, therefore, worthwhile studying leadership competencies and behaviors associated with successful GHRM initiatives. Also, future research could look at the cross-cultural applicability of GHRM practices. Although this review predominantly focused on Western settings, it is important to establish how effective GHRM has been across different cultural and institutional contexts. The understanding by businesses of the societal factors that influence the success or failure of Green HRM programs can lead to the development of more suitable global Green HRMs.

According to Amin et al.<sup>[8]</sup> organizations must now make environmental impact measures and societal benefits their core business focus after sustainability shifted from marginal to central importance in modern business operations<sup>[69]</sup>. Human Resource Management now acts as a strategic component to drive sustainability initiatives because it has transitioned from supporting functions. Green HRM, as a vital yet innovative field of study, merges HRM management concepts and sustainability objectives through environmental goals<sup>[45, 49]</sup>. This document investigates the methods through which Green HRM practices boost employee environmental accountability and demonstrates how employee responsibility contributes to broader sustainable business targets<sup>[70]</sup>. Positive employee attitudes toward both workplace responsibility and environmental responsibility drive the fulfillment of organizational sustainability goals. Green HRM functions as a driving force to transform company cultures that promote environmentally minded actions from staff members<sup>[25, 29, 56, 58]</sup>. Green HRM delivers its results through fundamental operations. First, Green HRM facilitates environmental awareness and education<sup>[71]</sup> Organizations need to teach employees important environmental matters and show them how their work conduct impacts the environment while presenting concrete advantages of sustainable practices<sup>[52, 58, 72]</sup>. Environmental consciousness becomes stronger as employees develop new habits, which drive them to practice sustainable business methods inside and outside workplace settings. Through effective Green HRM organizations build participative management as their base foundation<sup>[73]</sup>. Sustainability-related decision-making processes that involve employees create a powerful effect because it allows them to both lead the initiatives and develop stronger ownership of environmental outcomes<sup>[74]</sup>. Besides promoting inclusivity the approach creates accountability

while enabling employees to actively pursue sustainability goals for the organization<sup>[8]</sup>.

Performance measurement together with recognition systems function as essential elements for reinforcing targeted employee behaviors. Leadership uses performance metrics combined with recognition programs to encourage employees who demonstrate superior environmental responsibility through these feedback systems as described in Niazi et al.<sup>[43]</sup>. An organizational system which promotes environmental stewardship teaches members to value such responsible behavior while continuing to participate. Employee engagement along with their well-being stands as the fourth main priority of Green HRM<sup>[8, 19]</sup>. Organizations achieve higher levels of employee environmental responsibility through investments in employee welfare, which enable them to establish positive work environments that support sustainability engagements<sup>[75]</sup>. Employee health stands at the heart of a total system which recognizes how their welfare influences environmental stewardship. Green HRM creates sustainability outcomes at the organizational level which reach beyond personal employee conduct by delivering multidimensional advantages. Organizations achieve major environmental reductions through responsible behavior implementation, which saves resources, minimizes waste, and lowers their carbon emissions<sup>[69]</sup>. Employing Green HRM practices creates more motivated employees who become more engaged in their work which drives productivity growth, and decreased absenteeism, and higher job satisfaction<sup>[71]</sup>. When these practices generate improvements in the workforce, they create conditions for a more innovative and resilient team. Sustainable priority organizations obtain superior brand image and enhanced stakeholder confidence, which leads them to draw environmentally conscious customers, investors, and workers<sup>[3]</sup>. Sustainable practices lead to operational efficiency growth with reduced expenses and improved efficiencies through practices like energy management, waste minimization, and resource management<sup>[8]</sup>. Green HRM represents a strategic requirement that organizations should embrace to achieve sustainable results that last. The active investment in environmental responsibility development among staff members' enables organizations to reduce their environmental footprint successfully while strengthening their corporate brand values and creating a sustainable world<sup>[31, 38]</sup>. Performance measurement together

with recognition systems function as essential elements for reinforcing targeted employee behaviors. Leadership uses performance metrics combined with recognition programs to encourage employees who demonstrate superior environmental responsibility through these feedback systems as described in Gazi et al.<sup>[38]</sup>. An organizational system that promotes environmental stewardship teaches members to value such responsible behavior while continuing to participate. Employee engagement along with their well-being stands as the fourth main priority of Green HRM<sup>[76]</sup>. Organizations achieve higher levels of employee environmental responsibility through investments in employee welfare, which enable them to establish positive work environments that support sustainability engagements<sup>[3]</sup>. Employee health stands at the heart of a total system which recognizes how their welfare influences environmental stewardship. Green HRM creates sustainability outcomes at the organizational level which reach beyond personal employee conduct by delivering multidimensional advantages<sup>[22, 50]</sup>. Organizations achieve major environmental reductions through responsible behavior implementation, which saves resources, and minimizes waste and lowers their carbon emissions<sup>[77]</sup>. Employing Green HRM practices creates more motivated employees who become more engaged in their work, which drives productivity growth and decreased absenteeism and higher job satisfaction<sup>[52]</sup>. When these practices generate improvements in the workforce they create conditions for a more innovative and resilient team. Sustainable priority organizations obtain superior brand image and enhanced stakeholder confidence which leads them to draw environmentally conscious customers, investors, and workers<sup>[50]</sup>. Sustainable practices lead to operational efficiency growth with reduced expenses and improved efficiencies through practices like energy management and waste minimization and resource management<sup>[3, 50]</sup>. Green HRM represents a strategic requirement that organizations should embrace to achieve sustainable results that last. The active investment in environmental responsibility development among staff member's enables organizations to reduce their environmental footprint successfully while strengthening their corporate brand values and creating a sustainable world. Organizations need Green HRM practices to build sustainable workplace cultures because these practices support their future viability in this environmentally aware society.

The role of Green Human Resource Management (Green HRM) in organizational sustainability consists of three fundamental functions that increase employee commitment, decrease environmental footprint, and create financial advantages. Analysis shows that eco-friendly training and recruitment methods within Green Human Resource Management create higher employee engagement along with higher satisfaction which minimizes employee turnover<sup>[56, 72]</sup>. The strategic implementation of Green HRM practices leads to improved brand reputation as well as operational efficiency<sup>[50]</sup>. The organizations that want to successfully implement Green HRM need to dedicate money to training programs and change management systems according to Renwick et al.<sup>[11]</sup>.

Various organizational settings face particular hurdles in their implementation of Green Human Resource Management (GHRM), thus requiring dedicated solutions to improve sustainability initiatives. Manufacturing businesses have difficulty meeting regulatory requirements with operational goals, yet service providers encounter sustainability engagement obstacles from their workers. The shortage of financial resources, along with poor infrastructures in developing countries together with cultural tendencies that avoid environmental awareness blocks their ability to properly implement GHRM systems. The implementation of sustainable practices heavily depends on both leadership involvement and proper organizational governance since management backing creates the necessary momentum for employee engagement in green initiatives. Measuring GHRM effectiveness proves difficult because firms require established metrics as well as face obstacles when integrating new technologies. Organizations seeking operational sustainability need to customize their GHRM approaches according to their unique challenges and establish an environment-friendly organizational culture. This combination will help organizations fulfill their longterm sustainability goals. Public research should investigate these obstacles further to enhance GHRM frameworks.

To sum up, this conceptual review provides a solid footing in understanding the role of GHRM in enhancing organizational sustainability. While there are many indications pointing towards this direction, there is a need for empirical evidence that can help explain the complexities involved in implementing such strategies within different types of organizations. This would bridge identified research gaps, leading to an informed green human resources management approach thereby sustainable business operations in future studies.

## 5.1. Policy Implication

A conceptual review of Green Human Resource Management (Green HRM) demonstrates that organizations require comprehensive policies to unite sustainable practices with human resource strategies for boosting sustainability. Organizations need to create official policies which require Green HRM implementation in every HR section from recruitment through performance appraisal to sustainability alignment. Continuous employee training initiatives that focus on environmental stewardship act as a key investment because they enable staff members to develop vital sustainable skills to implement new practices and fight against resistance to organizational changes. Forming strategic alliances between companies and educational establishments and sustainability organizations creates an efficient system to recruit staffs who demonstrate sustainability capabilities. Employees need specific incentives based on sustainability measurements for making green improvements, and governments should support these programs through tax relief or monetary incentives. Standardized metrics need implementation to evaluate the success of Green HRM initiatives since such standards will increase transparency and sustainability reporting accountability. To solve implementation hurdles related to restricted resources and employee opposition policymakers should develop programs which provide networks of support and financing alternatives for small and medium businesses. Organizations need to heighten their engagement with diverse stakeholders while establishing complete openness and teamwork between staff members, alongside consumers and suppliers, alongside the local community. Successful Green HRM depends heavily on leadership development programs which educate leaders about sustainability competencies because effective Green HRM needs leaders devoted to ecological responsibility. The adoption of new green technologies through policy support creates operational sustainability, while research backing is crucial to validate Green HRM methods across different business sectors and geographic areas. Organizations can transform Green HRM into their strategic business success instrument through extensive policies that enable integration along with

incentives, accountability systems, and continuous learning programs.

### 5.2. Theoretical Implication

The present study's results provide a theoretical basis for understanding how the adoption of Green Human Resource Management (Green HRM) affects organizational sustainability. The TBL model displays an interrelation between economic prosperity, social responsibility, and environmentalism indicating a requirement for the inclusion of Green HRM within a firm's operations. Such revelations by this study support that through promoting environmental conservation while enhancing social obligation as well as economic success, greening up human resource functions can indeed contribute to overall sustainability of an organization.

## 6. Conclusion

The study conducted systematic review and critical analysis of literature on green human resource management (green HRM) and organizational sustainability. The review findings indicate that green HRM is critical to the promotion of organizational sustainability as it incorporates ecological factors into human resource practices. The Triple Bottom Line (TBL) model presents a framework for understanding the relationship that exists between economic performance, social responsibility, and environmental sustainability, emphasizing the long-term implications of business decisions.

Through Green Human Resource Management implementation, organizations unlock innovation because they develop a sustainability-focused culture which trains and activates workers for environmental sustainability efforts. GHRM helps teams from different departments work together while implementing feedback systems which results in innovative problem resolution along with sustainable outcomes. Organizations that recognize and reward sustainable innovation gain motivated employees who actively pursue sustainable targets for the company. Green HRM has been found to have several advantages, including cost reduction, improved employee motivation, and enhanced reputation among others in the reviewed literature. The articles also show how Green HRM has positively influenced organizational environmental performance, social responsibility, and employee engagement. The integration of green HRM practices into operations reduces environmentally unfriendly activities while enhancing staff commitment and motivation, thus improving corporate reputation towards stakeholders, which ensures that they consider long-term implications when making business decisions thus requiring transparency and accountability, hence reporting sustainable performances over time.

However, despite its increasing significance, more research is needed to examine the complex facets of green HRM and its effectiveness in diverse organizational settings. In addition, future studies should look at specific sectors or geographical regions under investigation with measurable scales for assessing practices plus outcomes of green HRM besides exploring the relevance with other sustainable initiatives.

### 6.1. Limitation of the Study

This study has several limitations that should be acknowledged. Firstly, the literature review focused on published articles, which may not represent the entire body of knowledge on Green HRM and organizational sustainability. Secondly, the study relied on secondary data, which may not provide a comprehensive understanding of the complex relationships between Green HRM and organizational sustainability. Thirdly, the review did not include case studies or empirical studies from specific industries or regions, which may limit the generalizability of the findings. Additionally, the study's focus on conceptual frameworks and theoretical models may limit its generalizability to specific contexts. Furthermore, the study's scope was limited to exploring the relationship between Green HRM and organizational sustainability, without examining other potential factors that may influence this relationship.

## **6.2.** Future Research Directions

Several areas of research can be looked at by developing future directions in Green Human Resource Management (Green HRM) and organizational sustainability. Future studies should go beyond the existing knowledge, and perform quantitative analyses to determine if there is any causal relationship between green HRM practices and outcomes of organizational sustainability. Industry-specific studies, particularly in non-Western contexts, would provide valuable insights into the relevance of Green HRM principles. It is important to measure sustainability outcomes; therefore, researchers must develop and validate metrics that evaluate the effectiveness of Green HRM initiatives. The subject of implementing Green HRM practices via organizational change management strategies remains unexplored, as well as employee engagement and participation roles, stakeholder engagement, technology-based solutions, green leadership, and sustainability reporting, among others. These are vital gaps for research that will help us have a better understanding of how Green HRM plays an important role in improving an organization's sustainable development, which becomes an inspiration for evidence-based decision-making within organizations aspiring to adopt sustainable practices within their operations. By exploring these areas future research can contribute towards enhancing a stronger database on Green HRM and its relevance to organization's sustainability objectives.

# **Author Contributions**

Conceptualization, M.A.I.G. and M.N.N.; methodology, M.A.I.G.; software, M.A.I.G.; validation, M.F.I., S.M. and M.Y.; formal analysis, M.A.I.G.; investigation, M.F.I., A.R.b.S.S. and S.M.; resources, S.M. and M.Y.; data curation, M.F.S. and M.Y.; writing—original draft preparation, M.A.I.G. writing—review and editing, S.M., M.Y., A.R.b.S.S. and M.N.N.; visualization, M.Y., A.R.b.S.S. and M.N.N.; supervision, M.N.N.; project administration, M.A.I.G.; funding acquisition, M.A.I.G. and M.N.N. All authors have read and agreed to the published version of the manuscript.

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# **Conflict of Interest**

There are no relevant financial or nonfinancial interests to disclose.

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