

## REVIEW ARTICLE

# REVIEW OF SUSTAINABLE HR MANAGEMENT PRACTICES IN NIGERIA'S OIL, GAS, AND RENEWABLE ENERGY SECTORS

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## ABSTRACT

This comprehensive review explores sustainable Human Resource (HR) management practices within Nigeria's diverse energy sectors, focusing on oil, gas, and renewable energy. The paper examines the role and impact of sustainable HR practices in fostering environmental and organizational sustainability. It provides an in-depth analysis of the existing literature, highlighting the importance and definition of sustainable HR management practices and identifying gaps in current knowledge. The review reveals the various sustainable HR practices employed in these sectors and their implications for environmental conservation and organizational performance. A comparative analysis is conducted to understand sector-specific challenges and opportunities in implementing sustainable HR practices. The findings of this review are crucial for organizations aiming to enhance sustainability through HR practices and for future research in sustainable HR management in energy sectors. The paper concludes by offering insights into the contributions of sustainable HR management practices to the field and reflecting on their importance for the future sustainability of Nigeria's energy sectors.

## KEYWORDS

Sustainable HR Management, Environmental Sustainability, Organizational Sustainability, Nigeria, Energy Sectors, Oil and Gas, Renewable Energy, Sustainable Practices, Comparative Analysis, Organizational Performance

## 1. INTRODUCTION

## 1.1 Background on Nigeria's Energy Sectors (Oil, Gas, And Renewable Energy)

Nigeria, often heralded as a significant player in the global energy landscape, boasts a rich tapestry of energy resources, notably in the realms of oil, gas, and increasingly, renewable energy. The discovery of oil in the Niger Delta in the late 1950s marked a turning point for Nigeria, catapulting it onto the global stage as a leading oil producer (Ite et al., 2013). Since then, the oil and gas sectors have become the linchpins of Nigeria's economy, contributing substantially to its Gross Domestic Product (GDP) and serving as a primary source of foreign exchange earnings.

However, the global narrative on energy is shifting. The exigencies of climate change, coupled with the global drive towards sustainable development, have cast a spotlight on the environmental ramifications of fossil fuel extraction and consumption. Nigeria, in response, has begun to diversify its energy portfolio, with renewable energy sources such as solar, wind, and hydropower emerging as viable complements to its oil and gas mainstays (Ohimain, 2013). The Nigerian government, cognizant of the potential of renewable energy, has rolled out policies and frameworks to bolster its adoption. The National Renewable Energy and Energy Efficiency Policy (NREEEP) of 2015 stands as a testament to this commitment, aiming to increase the share of renewable energy in the country's energy mix.

Yet, the journey towards a sustainable energy future for Nigeria is fraught with challenges. The legacy of the oil and gas sectors, marked by infrastructural investments, entrenched interests, and socio-economic dependencies, casts a long shadow (Ovadia, 2016). The transition to renewable energy is not merely a technological or economic challenge but also a socio-political one, necessitating a holistic reimagining of Nigeria's energy landscape.

In conclusion, Nigeria's energy sectors, with their rich histories, challenges, and opportunities, offer a microcosm of the broader global energy transition. As the country grapples with its energy future, the lessons gleaned from its journey will undoubtedly resonate far beyond its borders, offering insights for other energy-rich nations navigating the complexities of the 21st-century energy landscape.

## 1.2 Importance of Sustainable HR Management Practices In The Energy Sector.

The energy sector plays a pivotal role in driving economic growth and ensuring the well-being of populations worldwide. As the global demand for energy continues to rise, there is an increasing emphasis on the sustainable management of resources and the integration of gender considerations into energy policies and practices. This emphasis stems from the recognition that energy access, particularly in developing regions, has profound implications for gender equality and overall human welfare (Köhlin et al., 2011).

In many developing countries, energy scarcity is a pressing concern, with significant portions of the population lacking access to reliable and

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affordable sources of energy. This scarcity often translates into increased labor burdens, particularly for women who are traditionally responsible for tasks such as fuelwood collection. The time and effort expended on these tasks can limit women's opportunities for education, employment, and other activities that contribute to personal and community development. Moreover, the use of traditional energy sources, such as biomass for cooking, can have detrimental health effects, especially for women and children who are primarily exposed to indoor air pollution (Köhlin et al., 2011).

The World Bank, recognizing the intricate links between energy access, gender, and development, has emphasized the need for interventions that address these interdependencies. Such interventions, however, must be grounded in a deep understanding of the local context, including cultural norms, household decision-making dynamics, and the specific challenges faced by women. For instance, in some regions, female-headed households may face greater barriers to adopting new energy technologies due to economic, legal, or cultural constraints. Addressing these barriers requires targeted interventions that consider both the immediate needs and the long-term aspirations of these households (Köhlin et al., 2011).

Furthermore, the transition to sustainable energy sources and practices is not just about addressing energy scarcity or reducing environmental impacts. It is also about ensuring that the benefits of energy access are equitably distributed and that women, who often bear the brunt of energy poverty, are empowered to participate in and benefit from the energy transition. This requires a holistic approach that integrates gender considerations into all aspects of energy policy, planning, and implementation. Such an approach can lead to more inclusive, sustainable, and resilient energy systems that cater to the needs of all members of society (Köhlin et al., 2011).

In the contemporary era, the profound impact of human activities and enterprise operations on the environment has become increasingly evident. Consequently, understanding the strategies and innovative measures adopted by companies, especially those in the energy sector, to mitigate the adverse effects of their operations is of paramount importance. A recent study titled "Digitization, Digital Twins, Blockchain, and Industry 4.0 as Elements of Management Process in Enterprises in the Energy Sector" sheds light on this very subject (Borowski, P.F., 2021).

In conclusion, the sustainable management of the energy sector is not just an environmental or economic imperative; it is also a social one. Ensuring that women have equal access to energy resources and the opportunity to participate in the energy transition is crucial for achieving broader development goals, including gender equality, poverty reduction, and improved human well-being. As the global community continues to grapple with the challenges of energy security and sustainability, it is imperative to place gender considerations at the forefront of the discourse and action.

### 1.3 Objective and Scope of The Review

The objective of a literature review is to synthesize the existing body of knowledge on a particular topic, identifying key themes, methodologies, findings, and gaps in the research. In the realm of sustainable HR management within the energy sector, the objective becomes even more nuanced. It seeks to understand how human resource practices align with sustainability goals, particularly in an industry as pivotal and dynamic as energy.

The scope of this review encompasses various facets of sustainable HR management within the energy sector. One of the primary areas of focus is the integration of sustainable practices within HR functions, such as recruitment, training, performance management, and employee engagement. This includes understanding how HR can drive sustainability initiatives, promote green behaviors among employees, and foster a culture of sustainability within the organization (Kim et al., 2022).

The energy sector, with its vast implications for economic growth, environmental sustainability, and social welfare, is undergoing significant transformations. These changes are driven by technological advancements, regulatory shifts, and evolving societal expectations. Within this context, human resource management plays a crucial role in ensuring that the workforce is equipped, motivated, and aligned with the sector's sustainability objectives (Moreno-Monsalve et al., 2022).

A recent study delved into the intricate relationship between project management and sustainable development. It highlighted that traditional metrics of project success, such as scope, time, and budget, are no longer adequate in today's complex landscape. Instead, there's a growing emphasis on creating value, not just in economic terms but also in terms

of social progress and environmental stewardship. This perspective resonates deeply with the energy sector, where projects often have far-reaching implications for communities, ecosystems, and future generations. The study further underscored the importance of integrating sustainable development principles into project management practices, ensuring that projects in the energy sector contribute positively to broader sustainability goals (Moreno-Monsalve et al., 2022).

Furthermore, the research highlighted the importance of stakeholder engagement in achieving sustainable outcomes. In the energy sector, this translates to involving communities, regulators, investors, and employees in decision-making processes, ensuring that projects are not only economically viable but also socially acceptable and environmentally benign. Such an inclusive approach to project management can enhance the legitimacy, acceptance, and success of energy projects, further reinforcing the importance of sustainable HR practices in the sector (Jakimowicz, 2022).

In conclusion, the objective and scope of this review are to provide a comprehensive understanding of sustainable HR management in the energy sector. By drawing insights from existing literature, the review aims to highlight best practices, challenges, and future directions in this critical area. As the energy sector continues to evolve, the role of HR in driving sustainability will undoubtedly become even more significant, making this review timely and relevant.

## 2. METHODOLOGY

The methodology of a research study serves as its backbone, particularly when it comes to systematic literature reviews. Ensuring rigor, relevance, and comprehensiveness is paramount, from the criteria of selecting literature to the choice of databases, keywords, time frames, and screening processes.

**Criteria for Selecting Literature:** Literature selection criteria ensure the inclusion of relevant and high-quality studies. For example, Zhang highlighted multifaceted criteria in public-private partnerships (Zhang, 2005). Similarly, some researchers emphasized clear criteria for 3D dental prostheses literature, while highlighted methodological rigor in studying university students' digital competence (Anadioti et al., 2020; Sánchez-Caballé et al., 2020).

**Choice of Databases and Search Engines:** Systematic reviews rely heavily on databases and search engines to provide a comprehensive spectrum of academic literature. The approach of a group of researchers to include grey literature using diverse search strategies exemplifies this (Godin et al., 2015). Similarly, both underscored the need for multiple databases to achieve a thorough review (Parrish et al., 2020; Khunda et al., 2018).

**Precision in Keywords and Search Strings:** Keywords serve as anchors in systematic reviews, guiding the literature search, as outlined by (Booth et al., 2012). Combining keywords through search strings, often linked by Boolean operators, ensures a precise search (Higgins and Green, 2011). Techniques such as truncation and wildcards help capture a broader spectrum of literature, balancing breadth and precision (Moher et al., 2009).

**Setting the Time Frame for Literature:** Deciding on a literature time frame ensures relevance while capturing historical context. The frame often reflects the topic's evolution, as noted by (Chugani et al., 2017). Striking a balance between including recent advancements and foundational knowledge ensures a well-rounded review (Rippin et al., 2018).

**Screening and Selecting Studies Process:** Rigor in systematic reviews is maintained through meticulous screening and selection of studies. The initial screening, which focuses on titles and abstracts, paves the way for more in-depth full-text reviews based on specific criteria, as discussed by (Muljana and Luo, 2019). Moreover, the quality assessment phase identifies potential biases, ensuring a robust foundation for evidence synthesis (Canelo-Aybar et al., 2019).

In conclusion, the success of a systematic literature review hinges on its methodology. By adhering to best practices at every step, from literature selection to final screening, researchers ensure a valuable, meaningful contribution to their field of study.

## 3. LITERATURE REVIEW

### 3.1 Sustainable HR Management: An Overview

Human Resource Management (HRM) has traditionally been viewed as a function that maintains the status quo within organizations. However, as

the global business landscape evolves and the importance of sustainability gains prominence, there is a growing recognition of the need for a more holistic and forward-thinking approach to HRM. This has given rise to the concept of Sustainable HRM, which seeks to integrate the principles of sustainability into HR practices, ensuring that organizations not only achieve their immediate objectives but also contribute positively to the broader societal and environmental context in which they operate.

### 3.1.1 The Genesis of Sustainable HRM

The emergence of Sustainable HRM can be traced back to the increasing awareness of environmental sustainability among business executives, governments, consumers, and scholars. As stakeholders grapple with the challenges and opportunities presented by environmental concerns, the HRM function has expanded its role to encompass environmentally sustainable business practices. This has led to the development of Green HRM, which focuses on transforming traditional HR policies and practices to align with environmental sustainability goals (Mehta and Chugan, 2015).

### 3.1.2 The Role of HRM in Achieving Organizational Sustainability

Sustainable HRM goes beyond merely adopting environmentally friendly practices. It encompasses a broader perspective that integrates economic, social, and human considerations. HR practices, when designed with sustainability in mind, can contribute to achieving organizational sustainable competitive advantage. This is achieved by aligning HR practices with Natural Resource Based View (NRBV) strategies, such as pollution prevention, product stewardship, and sustainable development. Such alignment ensures that organizations not only minimize their negative impact on the environment but also foster a culture of sustainability among their employees (Almada and Borges, 2018).

### 3.1.3 Translating Sustainable HRM into Practice

While the theoretical underpinnings of Sustainable HRM are well-established, its translation into practical HRM activities within organizations is still an area of ongoing research. A study of Lithuanian organizations revealed a variety of HRM practices that reflect the principles of sustainability. These practices ranged from employee care and external partnerships to fairness, equality, and employee development. The study emphasized the need for a diverse set of HRM activities that simultaneously consider economic, environmental, societal, and human aspects to truly achieve sustainability (Stankevičiūtė and Savanevičienė, 2018).

In conclusion, Sustainable HRM represents a paradigm shift in the way organizations approach people management. By integrating sustainability principles into HR practices, organizations can ensure that they not only achieve their immediate business objectives but also contribute positively to the broader societal and environmental context. As the global business landscape continues to evolve, Sustainable HRM will undoubtedly play a pivotal role in shaping the future of organizations.

## 3.2 Nigeria's Energy Sectors: A Brief Overview

Nigeria, often referred to as the "Giant of Africa," is not only the most populous country in Africa but also a significant player in the global energy landscape. The nation's energy sectors, comprising oil, gas, and renewable energy, have played a pivotal role in its economic development and geopolitical influence.

### 3.2.1 Oil and Gas: The Backbone of Nigeria's Economy

Nigeria's oil and gas sector has been the primary driver of its economy for several decades. The country is endowed with vast oil reserves, making it the largest oil producer in Africa and a member of the Organization of the Petroleum Exporting Countries (OPEC). The Niger Delta region, in particular, is the epicenter of Nigeria's oil production, with numerous onshore and offshore oil fields. However, the sector has faced challenges, including oil theft, pipeline vandalism, and environmental degradation, which have sometimes led to tensions and conflicts in the region (Gyamfi et al., 2021).

### 3.2.2 Transition to Renewable Energy

While oil and gas remain dominant, there is a growing emphasis on diversifying Nigeria's energy mix to include renewable sources. Factors such as the global push for cleaner energy, the need to electrify rural areas, and the potential to harness abundant solar and wind resources have spurred interest in renewable energy. Initiatives are underway to increase the share of renewables in the energy mix, with solar energy projects gaining traction in various parts of the country. The government's

commitment to sustainable development and international agreements, such as the Paris Agreement, further underscores the importance of this transition (Oakleaf et al., 2019).

### 3.2.3 Challenges and Opportunities

Despite its vast energy resources, Nigeria faces challenges in ensuring energy security and sustainability. Issues such as energy infrastructure deficits, regulatory inconsistencies, and underinvestment have sometimes hampered the growth of the energy sectors. However, the potential for growth remains immense. Investments in renewable energy technologies, modernization of oil and gas infrastructure, and policies that promote sustainable energy practices can position Nigeria as a leader in Africa's energy future (He et al., 2022).

In conclusion, Nigeria's energy sectors are at a crossroads. While the legacy of oil and gas is undeniable, the future beckons with the promise of renewable energy. Strategic investments, policy reforms, and a commitment to sustainability will determine the trajectory of Nigeria's energy landscape in the coming decades.

## 3.3 Sustainable HR Practices in Nigeria's Oil and Gas Sector

The oil and gas sector has been the linchpin of Nigeria's economy for decades, contributing significantly to the nation's GDP and foreign exchange earnings. As the sector continues to evolve, there is a growing emphasis on integrating sustainable human resource (HR) practices to ensure long-term growth, employee satisfaction, and environmental responsibility.

In the dynamic landscape of the oil and gas industry, the role of human resources cannot be understated. Employees are the backbone of operations, from exploration to refining and distribution. Sustainable HR practices in this sector not only focus on recruiting and retaining the best talents but also on ensuring that employees are equipped with the necessary skills and knowledge to adapt to changing industry dynamics (Adresi and Darun, 2017).

One of the key challenges faced by the Nigerian oil and gas sector is the high turnover rate, often attributed to the volatile nature of the industry and external economic factors. However, research suggests that employee commitment plays a crucial role in organizational performance. Companies that prioritize employee well-being, offer competitive compensation packages, and provide opportunities for growth and development tend to have higher levels of employee commitment and, consequently, better organizational performance (Irefin and Mechanic, 2015).

Furthermore, the global shift towards sustainable energy and environmental conservation has placed additional pressure on the oil and gas sector to adopt eco-friendly practices. This extends to HR practices as well, with a focus on training employees on environmental conservation, promoting a culture of sustainability, and ensuring compliance with international environmental standards. The transition to renewable energy sources also presents an opportunity for the sector to diversify its operations and invest in training and development programs for employees to equip them with the skills needed for the future (Williams et al., 2019).

In conclusion, sustainable HR practices in Nigeria's oil and gas sector are not just about employee recruitment and retention. They encompass a holistic approach that considers the well-being of employees, the environmental impact of operations, and the long-term growth and sustainability of the industry. As the sector continues to face challenges, both internal and external, sustainable HR practices will be pivotal in ensuring its continued success.

## 3.4 Sustainable HR Practices in Nigeria's Renewable Energy Sector

The renewable energy sector in Nigeria has witnessed significant growth over the past few years, driven by the global push for sustainable energy solutions and the country's commitment to diversifying its energy mix. As the sector continues to expand, the role of sustainable human resource (HR) practices becomes increasingly crucial in ensuring its long-term success and sustainability.

The renewable energy sector, unlike the traditional oil and gas industry, is characterized by rapid technological advancements and a diverse range of energy sources, including solar, wind, hydro, and biomass. This diversity necessitates a workforce that is not only skilled but also adaptable to the changing dynamics of the industry (Olujobi, 2020). Sustainable HR practices in this context go beyond mere recruitment and training. They

encompass a holistic approach that focuses on continuous learning, employee well-being, and fostering a culture of innovation and sustainability.

One of the key challenges in the renewable energy sector in Nigeria is the shortage of skilled manpower. While the country has a vast pool of young, educated individuals, there is a gap in specialized training and education tailored to the renewable energy industry. Sustainable HR practices can bridge this gap by partnering with educational institutions to develop curriculum and training programs that cater to the industry's specific needs (Okundamiya et al., 2014).

Furthermore, the renewable energy sector, being relatively new in Nigeria, faces challenges related to policy inconsistencies, infrastructural deficits, and financing. Employees in this sector need to be equipped with skills that go beyond technical know-how. They need to be adept at navigating the complex regulatory landscape, liaising with stakeholders, and advocating for policy reforms that support the growth of the industry (Gorjian et al., 2022).

In conclusion, the renewable energy sector in Nigeria holds immense potential for driving the country's sustainable development goals. However, realizing this potential requires a workforce that is skilled, adaptable, and aligned with the industry's sustainability objectives. Sustainable HR practices, tailored to the unique needs of the renewable energy sector, will be pivotal in shaping the future of the industry in Nigeria.

## 4. SYNTHESIS

### 4.1 Commonalities and Differences in HR Practices Across Sectors

Human Resource (HR) practices play a pivotal role in shaping the organizational culture, enhancing employee performance, and driving business success. Across various sectors, HR practices are tailored to meet the unique demands and challenges of each industry. However, there are both commonalities and differences in HR practices across sectors, which are influenced by factors such as industry-specific requirements, technological advancements, regulatory frameworks, and cultural nuances.

One of the most pronounced differences in HR practices can be observed between traditional sectors, such as manufacturing, and emerging sectors like renewable energy. For instance, the post-Soviet region and Central and Eastern European countries have witnessed significant variations in HR practices among foreign-owned subsidiaries. In post-Soviet countries, HR departments tend to have more centralized decision-making with tight control, and the number of expatriates is comparatively lower than in Central and Eastern European regions (Poór et al., 2022). Such differences can be attributed to the distinct institutional histories and cultural contexts of these regions.

Another sector that has seen a transformation in HR practices is the energy sector, particularly with the global shift towards sustainable energy sources. The German Energiewende, which translates to "energy transition," exemplifies the move towards a low carbon, environmentally sound, and affordable energy supply. A comparative study between Germany and the United States highlighted the differences in the renewable energy and energy storage landscape, emphasizing the role of technology readiness, regulatory policies, and economic forces in shaping the industry (Bosman et al., 2020).

Furthermore, the textile sector in Punjab, Pakistan, has been exploring the integration of Green Human Resource practices to promote corporate sustainable development. Green HR practices, which focus on environmentally-friendly initiatives, have enabled industries to utilize greener resources, thereby reducing costs and enhancing production efficiency. However, the implementation of these practices presents challenges, especially in bridging the gap between green innovation and corporate sustainable development (Pasha et al., 2022).

Despite the differences, there are also commonalities in HR practices across sectors. For instance, the emphasis on continuous learning, employee engagement, and performance management is universally recognized as essential for organizational success. Additionally, with the increasing importance of sustainability, sectors worldwide are integrating green HR practices to promote environmental responsibility and sustainable business operations.

In conclusion, while HR practices are tailored to meet the specific demands of each sector, the underlying principles of employee well-being, organizational success, and sustainability remain consistent. As industries

evolve, it is imperative for HR professionals to stay abreast of the latest trends and best practices to drive organizational excellence.

### 4.2 Impact of Sustainable HR Practices on Environmental Sustainability

The integration of sustainable human resource (HR) practices into organizational strategies has emerged as a pivotal approach to achieving environmental sustainability. As organizations grapple with the challenges of climate change, resource depletion, and environmental degradation, the role of HR in driving sustainable initiatives has become increasingly evident. Sustainable HR practices not only contribute to the reduction of an organization's carbon footprint but also foster a culture of environmental consciousness among employees.

One of the primary ways through which sustainable HR practices impact environmental sustainability is by promoting green behaviors among employees. By integrating sustainability into recruitment, training, performance management, and reward systems, organizations can instill a sense of environmental responsibility among their workforce. For instance, training programs that emphasize the importance of resource conservation, waste reduction, and energy efficiency can significantly influence employees' daily actions and decisions. Such initiatives not only lead to direct environmental benefits but also result in cost savings for the organization (Habib et al., 2021).

Furthermore, sustainable HR practices play a crucial role in driving innovation for environmental sustainability. By fostering a culture of continuous learning and encouraging employees to come up with eco-friendly solutions, organizations can stay ahead in the sustainability curve. Innovative solutions, ranging from green product designs to sustainable supply chain practices, can significantly reduce the environmental impact of an organization's operations. Moreover, by recognizing and rewarding employees for their green initiatives, organizations can further reinforce the importance of environmental sustainability (De Bernardi et al., 2019).

Another significant impact of sustainable HR practices on environmental sustainability is through stakeholder engagement. By actively involving employees in sustainability initiatives, organizations can harness the collective intelligence of their workforce. Employee engagement in green initiatives not only leads to better implementation of sustainability strategies but also enhances the organization's reputation among stakeholders. A positive reputation, in turn, can lead to increased customer loyalty, investor confidence, and overall competitive advantage (Jerónimo et al., 2020).

In conclusion, the integration of sustainable HR practices into organizational strategies is imperative for achieving environmental sustainability. By promoting green behaviors, driving innovation, and engaging stakeholders, HR can play a pivotal role in steering organizations towards a sustainable future. As the challenges of environmental sustainability continue to intensify, the role of HR in driving sustainable initiatives will become even more critical.

### 4.3 Impact of Sustainable HR Practices on Organizational Sustainability

The role of human resource (HR) practices in shaping organizational outcomes has been a subject of extensive research. In recent years, the emphasis on sustainability has brought to the fore the concept of Sustainable HR Practices and its potential impact on organizational sustainability. This synthesis delves into the influence of these practices on the sustainability of organizations, particularly in the context of environmental, social, and economic dimensions.

Sustainable HR Practices are rooted in the broader framework of Green Human Resource Management (GHRM). GHRM practices, such as green recruitment and selection, green pay and rewards, and green employee involvement, are designed to align business strategies with environmental considerations (Malik et al., 2020). These practices not only contribute to environmental sustainability but also have implications for the broader organizational sustainability, encompassing social and economic dimensions.

A study revealed that industries perceive a positive impact of GHRM practices on corporate sustainability (Jamal et al., 2021). Specifically, practices like green recruitment and selection, green pay and rewards, and green employee involvement were found to have a positive association with corporate sustainability. This underscores the significance of integrating environmental considerations into HR practices to achieve broader organizational goals.

Furthermore, the resource-based view of organizations posits that firms can achieve sustainable competitive advantage through the effective utilization of their human, physical, and organizational resources. In this context, GHRM practices and green intellectual capital emerge as critical elements driving business sustainability (Malik et al., 2020). The emphasis on green intellectual capital, encompassing green human capital, green structural capital, and green relational capital, further reinforces the role of HR in shaping sustainable organizational outcomes.

Another dimension to consider is the role of corporate social responsibility (CSR) in conjunction with Sustainable HR Practices. (Fuqiang Zhao et al., 2021) explored the interplay between GHRM and CSR in achieving sustainable organizational performance. Their findings suggest that a synergistic approach, integrating both GHRM practices and CSR initiatives, can lead to enhanced sustainability outcomes for firms.

In conclusion, Sustainable HR Practices play a pivotal role in driving organizational sustainability. By aligning HR practices with environmental, social, and economic considerations, organizations can achieve a holistic approach to sustainability, ensuring long-term viability and success in an increasingly competitive and resource-constrained world.

#### 4.4 Best Practices and Recommendations

In the realm of sustainable HR practices, organizations are increasingly recognizing the importance of integrating sustainability into their human resource management strategies. Best practices in this area are not merely about compliance or risk mitigation; they are about leveraging human capital to drive sustainable outcomes that benefit both the organization and the broader society.

One of the foundational aspects of sustainable HR practices is the emphasis on green human resource management. Some researchers highlighted the role of green hiring and green training in shaping employees' perceptions about their organization's commitment to sustainability (Jerónimo et al., 2020). Their study found that green hiring was particularly influential in this regard, especially among older employees. On the other hand, younger employees were more influenced by green training. Interestingly, green compensation was found to be less relevant in shaping these perceptions. This underscores the importance of aligning HR practices with the broader sustainability goals of the organization and ensuring that these practices resonate with the diverse demographics within the workforce (Jerónimo et al., 2020).

Another dimension of sustainable HR practices is the strategic orientation towards green supply chain management. A group of researchers explored the impact of green entrepreneurial orientation and market orientation on the implementation of green supply chain management practices (Habib et al., 2021). Their findings suggest that a strong green entrepreneurial orientation and market orientation can significantly enhance the adoption of green supply chain practices, leading to improved sustainability performance for firms. This highlights the interconnectedness of HR practices with broader organizational strategies and the need for a holistic approach to sustainability (Habib et al., 2021).

Furthermore, Nawaz and Koç conducted an extensive review of the sustainability practices of the world's most sustainable organizations (Nawaz and Koç, 2019). Their research identified nine key themes that underpin the sustainability strategies of these organizations. Among these themes, employee relations emerged as a critical area, emphasizing the role of HR in driving sustainability outcomes. The study also highlighted the importance of sustainability management tools, governance, and research and innovation in advancing organizational sustainability. These findings provide a roadmap for organizations seeking to benchmark their sustainability practices against the best in the world (Nawaz and Koç, 2019).

In conclusion, as organizations navigate the complexities of the 21st century, sustainable HR practices will play a pivotal role in shaping their sustainability trajectories. By adopting best practices in this area, organizations can not only enhance their sustainability performance but also foster a culture of sustainability that permeates every facet of the organization.

## 5. DISCUSSION

### 5.1 Interpretation of The Main Findings

In the realm of research, the interpretation of main findings is a pivotal step that bridges the gap between data collection and the implications of those findings. It is through this interpretative process that researchers

can elucidate the significance of their results, providing a clearer understanding for stakeholders and guiding future research directions.

The importance of sustainable HR practices has been underscored by various studies, emphasizing their role in fostering organizational success and sustainability. For instance, Hronová and Špaček highlighted the increasing expectations from stakeholders for sustainable organizational practices, particularly in the context of the challenges posed by the current macroeconomic environment and the technological advancements of Industry 4.0 (Hronová and Špaček, 2021). Their study introduced a model for sustainable HRM practices, emphasizing the need for harmonized sustainability reporting that caters to both managers and investors. This underscores the importance of transparent and comprehensive reporting on sustainable HR practices, which can serve as a tool for both academic and practical analysis.

Furthermore, the application of sustainable practices is not limited to HR but extends to various sectors, including logistics. A group of researchers provided an overview of sustainable practices in logistics operations in Brazil, identifying 22 sustainable practices grouped into five macro areas (Martins et al., 2019). Such findings emphasize the versatility of sustainable practices and their applicability across different sectors.

Additionally, the significance of image interpretation and reporting by radiographers in Africa, emphasizing the positive attitude of radiographers towards this role and their comparable accuracy to radiologists (Bwanga et al., 2021). While this study is not directly related to HR practices, it underscores the importance of specialized roles and the potential for professionals to expand their scope of practice, which can be paralleled with the evolving roles within HR.

In conclusion, the interpretation of main findings in the context of sustainable HR practices reveals a landscape where organizations are increasingly recognizing the value of sustainable practices, not just as a moral imperative but as a strategic tool for organizational success. As research continues to shed light on best practices and their implications, it becomes imperative for organizations to adapt and integrate these findings into their operational strategies.

### 5.2 Implications For Policy, Practice, And Future Research.

The implications of sustainable HR practices for policy, practice, and future research are vast and multifaceted. The integration of sustainable HR practices into organizational strategies is not just a trend but a necessity in today's rapidly changing business environment. The emphasis on sustainability in HR practices is a reflection of the broader societal shift towards sustainable development, as evidenced by global initiatives such as the United Nations Sustainable Development Goals (SDGs) (Westerman et al., 2021).

From a policy perspective, the adoption of sustainable HR practices can lead to the formulation of guidelines and regulations that promote ethical, environmentally friendly, and socially responsible business operations. Governments and regulatory bodies can play a pivotal role in setting the standards and expectations for businesses in terms of their HR practices. For instance, policies can be formulated to incentivize companies that prioritize employee well-being, diversity and inclusion, and environmentally friendly workplace initiatives. Such policies can help in creating a level playing field where businesses compete not just on profits but also on their contribution to societal well-being (Christens and Speer, 2015).

In terms of practice, the implications are profound. Organizations that adopt sustainable HR practices are likely to witness enhanced employee engagement, reduced turnover, and improved organizational performance. Employees today, especially the younger generation, are increasingly looking to work for organizations that align with their personal values. By integrating sustainability into HR practices, organizations can attract and retain top talent, thereby gaining a competitive advantage in the market. Moreover, sustainable HR practices can lead to cost savings in the long run, as organizations invest in employee well-being, reducing healthcare costs, and absenteeism (Sundermeir et al., 2022).

Future research in this domain can delve deeper into understanding the nuances of sustainable HR practices across different industries and geographies. Comparative studies can be conducted to understand the best practices across sectors and how they can be adapted to different organizational contexts. Moreover, longitudinal studies can provide insights into the long-term benefits and challenges associated with the adoption of sustainable HR practices. Such research can provide actionable insights for practitioners and policymakers alike, ensuring that

the move towards sustainable HR practices is not just a trend but a long-lasting change (Rudolph et al., 2020).

In conclusion, the implications of sustainable HR practices for policy, practice, and future research are vast. As organizations navigate the complexities of the modern business environment, the integration of sustainability into HR practices will be crucial. With the right policies, practices, and research, the future of HR looks promising, with sustainability at its core.

## 6. CONCLUSION

The exploration of sustainable HR practices in Nigeria's energy sectors offers profound insights that can significantly influence the future of HR management in the country. Nigeria's energy sector, comprising oil, gas, and renewables, is pivotal to the nation's economy. Recognizing the essential role of HR in advancing sustainability, organizations are urged to harmonize their HR strategies with sustainability goals for long-term success. The research methodology ensured a thorough review of relevant literature by utilizing multiple databases and search engines. The literature review delved into the intricacies of sustainable HR management and its evolution. It further examined Nigeria's energy sectors, highlighting unique challenges and opportunities in both the oil and gas and the renewable sectors. Synthesis revealed both commonalities and differences in HR practices across the sectors, emphasizing their impact on environmental and organizational sustainability. Among the key findings were: the indispensability of sustainable HR practices for Nigeria's energy sectors; the unique HR challenges in the oil and gas sector due to its historical significance; the burgeoning renewable energy sector requiring agile HR practices; and the profound influence of sustainable HR on both environmental and organizational sustainability. Given the global push towards sustainability, HR's role in promoting sustainable practices in the energy sector becomes even more crucial. Embracing sustainable HR practices is not just about economic success but also entails environmental stewardship and social responsibility. For Nigeria's energy sectors, it means striking a balance between the present demands and future aspirations, ensuring a lasting positive impact. However, the research isn't without its limitations. A noticeable bias is the predominant focus on the oil and gas sector, which often overshadows the renewable energy sector. Funding sources for various studies might also introduce biases. Moreover, much of the existing research misses the grassroots perspectives, sidelining the experiences of employees and local communities. Several areas warrant further exploration. These include the role of technology in shaping sustainable HR practices, a comparative analysis across African countries, and an investigation into the intersections of sustainable HR practices with socio-cultural and economic factors in Nigeria. In conclusion, while significant strides have been made in understanding sustainable HR practices in Nigeria's energy sectors, there's much more ground to cover. The way forward demands collaboration among stakeholders, leveraging technology, continuous learning, and fostering a culture of sustainability. The challenges are numerous, but the potential rewards – for Nigeria and the global community – are vast. As the world transitions towards sustainable practices, Nigeria's energy sectors have an opportunity, with the aid of robust HR practices, to lead the way and leave a lasting legacy.

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