

**GREEN HRM PRACTICES AND EMPLOYEE PRO ENVIRONMENTAL BEHAVIOR:
ACROSS EMERGING ECONOMIES**

**PRAKTIK GREEN HRM DAN PERILAKU PRO LINGKUNGAN KARYAWAN: STUDI DI
NEGARA-NEGARA BERKEMBANG**

I Gede Agus Mertayasa, Raden Agus Sarwa Edy, Putu Steven Eka Putra, IWK Teja Sukmana, I Ketut Suartana

Universitas Dhyana Pura

*agusmertayasa@undhirabali.ac.id, agussarwaedy@undhirabali.ac.id,

steven@undhirabali.ac.id, tejasukmana@undhirabali.ac.id, suartana@undhirabali.ac.id

*Corresponding Author

ABSTRACT

This study presents a systematic literature review (SLR) on Green Human Resource Management (Green HRM) practices and their influence on Employee Pro-Environmental Behavior (EPEB) within the context of emerging economies. By analyzing 30 articles meeting the inclusion criteria from Scopus and Web of Science databases between 2012-2024, this study aims to identify publication trends, author affiliation distribution, dominant research methods, journal database sources, and the theories employed. The results indicate a significant increase in publications related to Green HRM and EPEB, especially since 2020, with research predominantly originating from China and Malaysia. Quantitative survey-based methods are the most frequently used approach, and Social Identity Theory/Organizational Identification and the Theory of Planned Behavior (TPB) are the most adopted theoretical frameworks. The findings suggest that Green HRM practices, such as green recruitment, environmental training, sustainability-oriented performance appraisals, and reward systems, effectively foster EPEB. This research contributes theoretically by expanding the understanding of Green HRM in emerging economies and provides a foundation for further empirical studies. Practically, these results offer guidance for HR managers to implement green HRM strategies that can enhance employee engagement and organizational sustainability performance. Study limitations include English language restriction and database coverage, leading to recommendations for future multi-country research, exploration of mediating/moderating variables, focus on specific industry contexts, and the use of longitudinal approaches.

Keywords: Green HRM, Employee Pro-Environmental Behavior (EPEB), Emerging Economies, Systematic Literature Review, Sustainability.

ABSTRAK

Penelitian ini menyajikan tinjauan sistematis literatur (SLR) mengenai praktik Green Human Resource Management (Green HRM) dan pengaruhnya terhadap perilaku pro-lingkungan karyawan (Employee Pro-Environmental Behavior/EPEB) dalam konteks negara-negara berkembang. Dengan menganalisis 30 artikel yang memenuhi kriteria inklusi dari database Scopus dan Web of Science dalam rentang tahun 2012-2024, studi ini bertujuan untuk mengidentifikasi tren publikasi, distribusi afiliasi penulis, metode penelitian yang dominan, sumber database jurnal, serta teori-teori yang digunakan. Hasil menunjukkan peningkatan signifikan dalam jumlah publikasi terkait Green HRM dan EPEB, terutama sejak tahun 2020, dengan dominasi penelitian dari China dan Malaysia. Metode kuantitatif berbasis survei merupakan pendekatan yang paling sering digunakan, dan Social Identity Theory/Organizational Identification serta Theory of Planned Behavior (TPB) adalah kerangka teori yang paling banyak diadopsi. Temuan mengindikasikan bahwa praktik Green HRM, seperti rekrutmen hijau, pelatihan lingkungan, penilaian kinerja berbasis keberlanjutan, dan sistem penghargaan, secara efektif mendorong EPEB. Penelitian ini memberikan kontribusi teoritis dengan memperluas pemahaman tentang Green HRM di negara berkembang dan menawarkan dasar bagi studi empiris lanjutan. Secara praktis, hasil ini memberikan panduan bagi manajer HR untuk mengimplementasikan strategi HRM hijau yang dapat meningkatkan keterlibatan karyawan dan kinerja keberlanjutan organisasi. Keterbatasan studi meliputi pembatasan bahasa Inggris dan cakupan database, yang mengarah pada rekomendasi untuk penelitian multi-negara,

eksplorasi variabel mediasi/moderasi, fokus pada konteks industri spesifik, dan penggunaan pendekatan longitudinal di masa depan.

Kata Kunci: *Green HRM, Perilaku Pro-Lingkungan Karyawan (EPEB), Negara Berkembang, Tinjauan Sistematis Literatur, Keberlanjutan.*

1. INTRODUCTION

The significance of Green Human Resource Management (Green HRM) in the sustainability era is increasingly apparent as organizations strive to align their operational practices with environmental objectives. Green HRM encompasses the integration of environmental management into HR practices, promoting sustainable business operations. Research indicates that employee engagement is crucial for the effective implementation of Green HRM practices, which in turn contribute positively to organizational performance and overall environmental sustainability (Yong et al., 2019; Liu, 2023; Palupiningtyas, 2024).

Emerging studies illustrate that organizations focusing on Green HRM not only enhance their environmental performance but also improve employee job satisfaction and retention (Yin, 2023; Imtiaz et al., 2023). This positive correlation can be attributed to the environmental awareness fostered by effective HR policies, which motivate employees to engage in pro-environmental behaviors (Saeed et al., 2018; Pham et al., 2019). Furthermore, the benefits of Green HRM extend beyond employee satisfaction; organizations adopting these practices experience improvements in their corporate image and economic performance, creating a synergy between social responsibility and profitability (Liu, 2023; Yin, 2023; Yong et al., 2019).

However, significant research gaps exist, particularly within emerging economies where Green HRM practices are still in nascent stages. Studies indicate that context-specific factors prevalent in emerging markets—such as cultural differences, regulatory environments, and economic constraints—demand dedicated scholarly attention to better understand how these factors influence the adoption of Green HRM (Yusliza et al., 2017; Chaudhary & Chaudhary, 2023). Despite growing global interest, there remains a lack of comprehensive analyses focusing on the application of Green HRM in diverse industry settings and geographical contexts, particularly in regions that have not traditionally prioritized environmental management (Ahn & Avila, 2022; Anlesinya & Susomrith, 2020; Paulet et al., 2021). In summary, the integration of Green HRM into organizational strategies is pivotal for fostering environmental sustainability while enhancing employee engagement and overall performance. However, future research must address the unique challenges faced by emerging economies, paving the way for a more inclusive understanding of Green HRM practices across different contexts and cultures.

Although Green Human Resource Management (Green HRM) has become an increasingly popular topic in the sustainability era, there are several significant research gaps, particularly in the developing world context. First, lack of cross-country studies in developing countries has limited our understanding of the application of Green HRM across various economic and cultural contexts. Much of the research is contextualized in developed countries, so the findings may not be universally applicable, especially in emerging markets with different regulations, organizational cultures, and economic conditions. Second, there is lack of analysis of methodological trends, theories, and author affiliations in the Green HRM literature. Most previous studies have focused on single empirical studies, resulting in a lack of systematic mapping of how theory is used, the dominant research methods, and the authors' geographic affiliations that influence research perspectives. This gap limits understanding of the global pattern of Green HRM research and best practices that can be adopted in developing countries. Third, limited integration between HRM practices and employee pro-environmental behavior (Employee Pro-Environmental Behavior / EPEB) remains a key issue. Although there are indications that environmentally friendly HRM practices can influence employee behavior,

empirical evidence across industries and countries is still limited, so the causal relationships and mechanisms underlying the influence of Green HRM on EPEB still need further exploration.

Thus, this study attempts to close this gap through a systematic approach that integrates analysis of publication trends, methodology, theory, author affiliations, and the relationship between Green HRM and EPEB in the context of developing countries. To address the above gaps, this study was designed with the following main research questions:

1. How are article publication trends related to Green HRM and EPEB from year to year?
2. How is the distribution of author country affiliations in Green HRM studies?
3. What dominant research methods used in previous studies?
4. What journal database sources are used for Green HRM research publication?
5. What theories were used in previous research related to Green HRM and EPEB?
6. How are current research trends regarding Green HRM and employee pro-environmental behavior?
7. How Green HRM practices influence employees' pro-environmental behavior in organizations in emerging economies?

These questions are designed to be investigative, allow for systematic analysis, and are relevant to both theoretical and practical contributions in the field of Human Resource Management. This research is expected to provide several important contributions to the development of sustainable human resource management literature and practice. First, this study offers global insights by comprehensively mapping Green HRM practices worldwide, covering geographic distribution, theories used, and dominant research methods. Second, this study also provides a theoretical basis for further research, so that the results of this systematic review can serve as a foundation for further empirical studies—both quantitative and qualitative—in examining the relationship between Green HRM practices and employee pro-environmental behavior in specific contexts. Third, these research findings provide practical recommendations for the implementation of green HRM, which can serve as guidelines for managers and policymakers, especially in emerging economies, to integrate sustainability practices into HR policies, increase employee engagement, and strengthen overall organizational performance.

2. METHODS

2.1. Research Design

This study uses a Systematic Literature Review (SLR) approach to map the literature related to Green HRM practices and employee pro-environmental behavior (EPEB) in emerging economies. The PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework is used to ensure the process of searching, selecting, and synthesizing the literature is transparent, replicable, and systematic.

2.2. Inclusion and Exclusion Criteria

To ensure the relevance and quality of the studies analyzed, the inclusion and exclusion criteria were set as follows:

- Article type: peer-reviewed journals, proceedings, and academic books that discuss Green HRM, EPEB, and sustainability.
- Year of publication: 2012–2024, to capture the latest research trends in the last 15 years.
- Main topics: Research should address Green HRM practices, employee pro-environmental behavior, and the relationship between the two in an organizational or industrial context.
- Language: publications in English.

- Exclusions: articles that are irrelevant to the topic, opinions without empirical data, or duplicate publications.

2.3. Data source

Studies are drawn from leading scientific databases to ensure broad coverage and credibility of the literature, including:

- Scopus
- Web of Science (WoS)

2.4. Search and Selection Process

Literature search was conducted using a strategy Boolean search, for example: “Green HRM” AND “Employee Pro-Environmental Behavior” AND “Emerging Economies” The article selection process is carried out in stages:

1. Screening Title: weed out articles that are clearly irrelevant based on the title.
2. Screening Abstract: assess the suitability of the topic, method, and research context.
3. Full-text Review: ensure the article meets all inclusion criteria.

The selection results are visualized using PRISMA diagram, which shows the number of articles found, filtered, and finally analyzed.

2.5. Data Analysis Techniques

Literature analysis was conducted using a systematic approach to identify research patterns and trends. Techniques used include:

1. **Coding and Categorization:** articles are coded based on:
 - Year of publication
 - Author's country of affiliation
 - Research methods
 - The theory used
 - Research trends related to Green HRM and EPEB

This approach allows for a systematic and comprehensive mapping of the literature, as well as identifying underexplored research gaps, especially in emerging economies.

3. RESULTS

3.1 Characteristics of the Studies Reviewed

This study analyzed a number of articles that met the SLR inclusion criteria, resulting in a comprehensive overview of Green HRM practices and employee pro-environmental behavior (EPEB) in emerging economies. Some key characteristics of the reviewed studies are as follows:

3.1.1. Prism Diagram

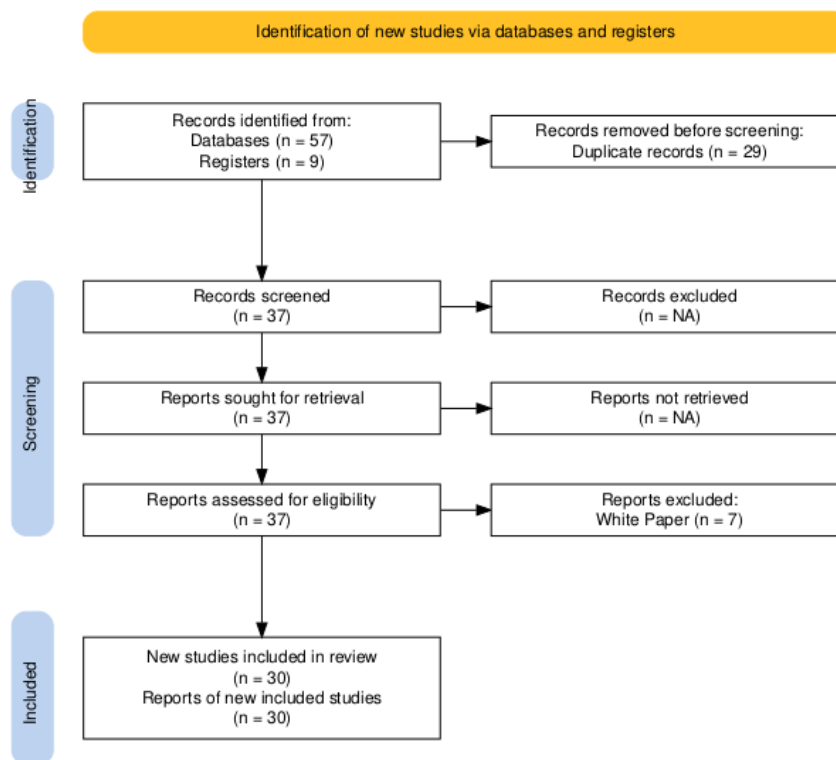


Figure 1 Prisma Diagram

At the level identification, obtained by 66 recordings relevant to the topics of Green HRM and Employee Pro Environmental Behavior (EPEB). The recording consists of 57 articles found through major databases (Scopus, Web of Science) as well as 9 recordings additional sources derived from academic registry sources. Of the total initial recordings, as many as 29 recordings removed before the filtering process because it was detected as a duplicate or off-topic. Furthermore, 37 recordings enter the level filtering. At this stage, screening was carried out through titles, abstracts, and full texts to ensure compliance with the inclusion criteria, including a focus on Green HRM, employee pro-environmental behavior, and the sustainability context in developing countries. From the screening stage, all 37 reports successfully accessed to retrieve data, so that no reports failed to be retrieved. When entering a level eligibility assessment, as much as 37 reports be further evaluated. However, 7 reports because it is only a white paper or non-peer-reviewed report that does not meet the criteria. Finally, there are 30 studies that met the inclusion criteria and included in the survey. The whole 30 research reports were then analyzed in the final study to explore the relationship between Green HRM practices and employee pro-environmental behavior in emerging economies.

3.1.2. Article Trend by Year

Table 1 Article Trend by Year

Year	Number of Articles
2012	2
2016	1
2017	1

Year	Number of Articles
2018	1
2019	1
2020	4
2021	3
2022	3
2023	6
2024	8

Source: Processed Data, 2025

The publication trend of articles related to Green HRM and EPEB shows significant development in the period 2012–2024. In 2012, research was still very limited, with only two articles published. After that, the period from 2016 to 2019 showed a relatively stagnant trend, with only one article published per year. Starting in 2020, there was a significant increase with four articles published, followed by three articles in 2021 and 2022. A sharper spike was seen in 2023 with six articles, and reached a peak in 2024 with eight articles. Overall, this trend indicates that academic attention to Green HRM and employees' pro-environmental behavior has been increasing, especially in the last five years, in line with the global urgency of sustainability issues and green HRM practices in various sectors.

3.1.3. Author Affiliation by Country

Table 2 Author Affiliation by Country

Country	Number of Articles
Pakistan	2
China	16
Malaysia	12

Source: Processed Data, 2025

The distribution of author affiliations by country indicates a predominance of research originating from China and Malaysia. Of the total articles analyzed, 16 (more than half) were from authors affiliated with institutions in China. Malaysia ranked second with 12 articles, while Pakistan contributed only two. These findings confirm that research related to Green HRM and EPEB remains concentrated in certain countries in Asia, particularly China and Malaysia, while contributions from other developing countries remain very limited. This suggests opportunities for cross-border research across other emerging economies in Asia, Africa, and Latin America to enrich the global literature and generate more diverse perspectives.

3.1.4. Research Methods Used

Table 3 Research Methods Used

Research Method	Number of Articles
Quantitative (Survey)	18
Conceptual/Modeling	3
Empirical (Mixed Methods)	5
Literature Review	2
Case Study	2

Source: Processed Data, 2025

An analysis of the research methods used indicates the dominance of quantitative survey-based approaches. Of the total articles reviewed, 18 used quantitative survey methods, making it the most widely used method by researchers. This reflects a tendency to empirically measure the relationship between Green HRM practices and employee pro-environmental behavior using large numbers of respondents. Furthermore, five articles used a mixed methods approach, indicating an effort to enrich research findings by combining quantitative and qualitative analysis. Conceptual or modeling methods were found in three articles, while two relied on a literature review approach, and two others were case studies. These findings indicate that although survey-based research remains dominant, there is scope for the development of other methodologies, such as in-depth qualitative studies and cross-contextual studies, to provide a more comprehensive understanding of Green HRM practices and their implications for EPEB.

3.1.5. Journal Database Sources

Table 4 Journal Database Sources

Database	Number of Articles
Scopus	22
Web of Science	8

Source: Processed Data, 2025

Analysis of journal database sources indicates that the majority of reviewed articles originated from Scopus. Of the total articles included in the review, 22 were obtained through Scopus, while the remaining 8 articles came from Web of Science. Scopus' dominance as a data source aligns with its reputation as one of the largest and most comprehensive databases for internationally reputable academic publications. This distribution indicates that research related to Green HRM and employee pro-environmental behavior is largely published in Scopus-indexed journals, thus strengthening the validity and credibility of the study's findings. Meanwhile, Web of Science's contribution remains significant, providing a diversity of perspectives in the analyzed literature. This finding underscores the importance of using more than one database to systematically cover a broader spectrum of literature and minimize the potential for publication bias.

3.1.6. Theories Used in the Articles

Table 5 Theories Used in the Articles

Theory Name	Number of Articles
Social Identity Theory / Organizational Identification	12
Theory of Planned Behavior	10
Social Exchange Theory	3
Transformational Leadership Theory	3
Servant Leadership Theory	2

Source: Processed Data, 2025

The analysis of theories used in previous studies shows the diversity of conceptual frameworks underlying research on Green HRM and employee pro-environmental behavior. The most dominant theories are Social Identity Theory and Organizational Identification, with 12 articles adopting them. This emphasizes the importance of employee identification with the organization in encouraging pro-environmental behavior, as sense of belonging and emotional attachment have been shown to influence commitment to sustainability goals. In addition, the Theory of Planned Behavior (TPB) is used in 10 articles, underscoring the role of attitudes, subjective norms, and perceived behavioral control in shaping employee intentions to behave in an environmentally friendly manner. Meanwhile, Social Exchange Theory appears in 3 articles, emphasizing the reciprocal relationship between organizations implementing green HRM practices and employee pro-environmental behavior as a form of reward. Two leadership theories, namely Transformational Leadership Theory (3 articles) and Servant Leadership Theory (2 articles), are also used to explain how leadership style mediates the relationship between organizational policies and individual behavior. These findings indicate that although research on Green HRM and EPEB is supported by various theories, there is a tendency for social and behavioral psychology theories to dominate, with the potential for further development through the integration of leadership theory, organizational resources, and cross-disciplinary approaches.

3.1.7. How do Green HRM practices influence employees' pro-environmental behavior in organizations in emerging economies?

Recent research on Green Human Resource Management (GHRM) indicates a significant relationship between GHRM practices—such as green recruitment, training, performance appraisals, and reward systems—and employee pro-environmental behavior (EPEB). Emerging economies are particularly relevant in this discourse, where organizations are increasingly adopting environmentally friendly policies in response to both market demands and regulatory frameworks. Evidence suggests that organizations emphasizing their green agendas during recruitment attract employees with positive pro-environmental attitudes, fostering a culture of sustainability within the workforce (Zafar et al., 2022). Furthermore, green training programs enhance employee awareness and capability in sustainability practices, translating to improved organizational performance in terms of environmental outcomes (Yong et al., 2019).

The theoretical frameworks commonly employed in these studies include Social Exchange Theory (SET), the Theory of Planned Behavior (TPB), and the Resource-Based View (RBV). SET describes the reciprocal relationship between organizations and employees, suggesting that employees who perceive their workplace as supportive of environmental initiatives are more inclined to engage in EPEB (Küçük, 2020). In alignment with this, the TPB elucidates the psychological antecedents of employee behaviors, positing that attitudes, subjective norms, and perceived behavioral controls significantly influence employees' intentions to act pro-environmentally (Gupta & Kaur, 2024). Additionally, the RBV frames

GHRM practices as potential sources of competitive advantage, aligning with organizational strategies that emphasize sustainability and innovation (Ari et al., 2020).

A synthesis of findings suggests that the most effective GHRM practices in enhancing EPEB comprise a strategic blend of environmental training, performance-based rewards tied to environmental outcomes, and robust internal communication regarding sustainability initiatives. Research indicates that employees respond positively to environments where performance appraisals include sustainability metrics, and where there is open communication regarding organizational goals in sustainability (Zafar & Suseno, 2024). This multi-faceted approach not only drives achievement in environmental targets but also fosters a deeper commitment to organizational values among employees.

In summary, the intersection of GHRM practices, relevant theoretical perspectives, and strategic implementation plays a crucial role in promoting sustainability within organizations, particularly in the context of emerging economies. By embedding green principles into human resource practices and organizational culture, companies can generate a competitive edge and contribute positively to environmental sustainability.

5. DISCUSSIONS

5.1 Synthesis of Results

The relationship between Green Human Resource Management (GHRM) practices and employee pro-environmental behavior (EPEB) in organizations, particularly in emerging economies, has garnered considerable attention in recent literature. Research indicates that GHRM practices can enhance EPEB mainly through mechanisms such as social exchange and the Theory of Planned Behavior (TPB), influencing employees' attitudes, social norms, and perceived behavioral control.

The implementation of GHRM practices, such as green recruitment, environmental training, sustainability-oriented performance appraisals, and green rewards, is vital in fostering EPEB. For instance, Gyensare et al. demonstrate that GHRM practices contribute to employee well-being and consequently enhance their commitment to pro-environmental activities (Gyensare et al., 2023). This is supported by findings from Ogiemwonyi et al., who emphasize that GHRM practices can lead to reductions in waste and energy use within the hospitality sector, indicating a positive link between GHRM initiatives and EPEB (Ogiemwonyi et al., 2023). Furthermore, Nurimansjah explores the influence of GHRM in the tourism sector, noting that it positively impacts both employee outcomes and their environmental behaviors (Nurimansjah, 2023).

The concept of social exchange theory is integral in understanding how GHRM practices translate into EPEB. Employees' perceptions of organizational support in sustainability initiatives create a reciprocal commitment toward environmental behaviors. Hameed et al. illustrate this relationship, indicating that as organizations adopt green HR practices, employees are more inclined to engage in environmentally friendly behaviors (Hameed et al., 2023). Additionally, the TPB provides a framework suggesting that employees' attitudes towards green practices, influenced by GHRM initiatives, affect their engagement in pro-environmental behaviors. Research by Ali et al. corroborates this notion, pointing out that aligning GHRM practices with pro-environmental behaviors fosters a constructive organizational culture that encourages sustainability (Ali et al., 2024).

Environmental training plays a crucial role, equipping employees with knowledge and skills necessary for adopting pro-environmental behaviors effectively. Uddin et al. emphasize that focused environmental training enhances ecological awareness among employees, thereby improving their potential for eco-friendly actions (Uddin et al., 2021). Moreover, participating in sustainability-based performance appraisals can foster intrinsic motivation among employees, reinforcing their green behaviors in accordance with organizational goals (Ali et al., 2024). This motivation can further be bolstered through reward systems that

recognize and encourage pro-environmental actions, as discussed by Mittal and Kaur regarding the impact of motivational practices on performance outcomes (Mittal & Kaur, 2023).

The effectiveness of GHRM practices in promoting EPEB is particularly evident in emerging economies, where there is an increasing acknowledgment of sustainability in organizational practices. Nisar et al. provide evidence on how green HRM strategies positively impact environmental performance, asserting that strategic HRM initiatives play a crucial role in promoting sustainable practices within organizations (Nisar et al., 2023). This trend is essential in contexts where economic development may traditionally overlook environmental concerns.

In conclusion, GHRM practices significantly advance employee pro-environmental behavior in organizations, especially in emerging economies. These practices leverage social exchange dynamics and align with the Theory of Planned Behavior to boost employee motivation and commitment to sustainability. By implementing comprehensive strategies that include green recruitment, training, performance appraisal, and rewards, organizations can cultivate positive employee responses characterized by enhanced pro-environmental behaviors.

5.2 Theoretical and Practical Implications

These findings empower the theoretical relationship between Green Human Resource Management (Green HRM) and employee behavior, particularly in the context of emerging economies, is supported by various empirical studies that utilize differing theoretical frameworks, namely the Resource-Based View (RBV), Social Exchange Theory (SET), and the Theory of Planned Behavior (TPB). These frameworks facilitate an understanding of how Green HRM practices can enhance both environmental performance and employee engagement.

Recent studies indicate that Green HRM practices positively correlate with enhanced organizational performance through mechanisms such as green innovation. For instance, Jnaneswar highlights that green HRM not only fosters green work engagement but also serves as a precursor to green innovation, leading to improved environmental performance in organizations (Jnaneswar, 2024). Similarly, Malik et al. emphasize the role of Green HRM in promoting sustainable practices by advocating for candidates with environmental knowledge, thereby tapping into the RBV for a strategic advantage (Malik et al., 2020). This underscores the importance of engaging employees in environmental initiatives, which is further supported by Obeidat et al., who note that effective Green HRM practices can enhance organizational performance within a circular economy framework (Obeidat et al., 2022).

Emerging economies, such as those analyzed by Amin and Oláh, demonstrate how implementing green employment design positively affects performance within the banking sector, providing evidence that these practices can yield substantial benefits even in environments that traditionally exhibit lower engagement with sustainability (Amin & Oláh, 2024). Moreover, Yusliza et al. highlight the effective implementation of Green HRM in Malaysia, contributing to the literature by providing evidence on its relevance within the RBV framework in terms of sustainability practices (Yusliza et al., 2017).

Furthermore, Kaur and Gupta's findings contextualize the mediating role of employee behavior in achieving environmental outcomes. Their research emphasizes the alignment of HRM practices with organizational sustainability goals, reinforcing the necessity for effective Green HRM strategies (Kaur & Gupta, 2024). This synergy is echoed by Chaudhary and Chaudhary, who observe that preliminary stages of green HRM implementation in emerging markets can offer insights for developing policies aimed at enhancing sustainability (Chaudhary & Chaudhary, 2023). Consequently, the intersection of individual environmental behaviors with Green HRM practices creates a foundation that supports both cultural and organizational effectiveness across various contexts.

In summary, the integration of theoretical frameworks such as SET, TPB, and RBV provides a multifaceted perspective on the impact of Green HRM on employee engagement and organizational sustainability. By analyzing evidence from emerging economies and linking these theories to practical outcomes, researchers contribute significantly to the expansion of Green HRM theory and its application in varied cultural landscapes.

This research provides guidance for HR practitioners in designing and implementing effective green HRM practices. A focus on environmental training, green performance-based incentives, and internal communications that support sustainability can improve employee EPEB and support organizational goals for environmental sustainability.

Although this SLR successfully provides a comprehensive overview of Green HRM practices and their influence on employee pro-environmental behavior, several limitations are worth noting. First, this study only analyzed English-language articles, thus local publications in other languages were not included, and potentially unique perspectives from non-English contexts may have been overlooked. Second, the data sources were limited to Scopus, Web of Science, and , thus literature available in other databases may have been missed. Third, the inclusion criteria used only included peer-reviewed articles, proceedings, and academic books, thus studies in the grey literature were excluded from the analysis. Furthermore, there is a possibility of publication bias, considering that the research reported in the literature tends to show positive results on the implementation of Green HRM, so that it can affect the balance of the findings in this review.

Based on these findings and limitations, future research is recommended to take several approaches. First, multi-country empirical study. It is necessary to examine the relationship between Green HRM and pro-environmental employee behavior across emerging economies, thus exploring differences in cultural, social, and regulatory contexts. Second, further research can explore mediation and moderation variables, such as organizational commitment, job satisfaction, or organizational culture, to deepen understanding of the influence mechanisms of Green HRM. Third, it is important to highlight specific industry context, for example manufacturing, hospitality, or technology, in order to gain more precise insights into the most effective Green HRM practices according to the characteristics of each sector. Finally, research with longitudinal approach. It is highly recommended to measure the long-term effects of Green HRM on employee pro-environmental behavior and organizational performance, so that the contribution of Green HRM to sustainability can be assessed more comprehensively.

6. CONCLUSION

This study presents a systematic literature review (SLR) on the relationship between Green Human Resource Management (Green HRM) practices and employee pro-environmental behavior (EPEB), with a particular focus on emerging economies. The findings highlight several key points. First, Green HRM has a significant positive influence on employee pro-environmental behavior, mediated by psychological and social mechanisms such as organizational identification and perceived organizational support. Second, publication trends demonstrate a rapid increase in academic interest from 2012 to 2024, with significant acceleration after 2020, in line with the growing global urgency regarding sustainability and the strategic role of HRM. Third, author affiliations indicate a geographic concentration of research in Asia—particularly China and Malaysia—while other developing regions such as Africa and Latin America remain underexplored. Fourth, the dominant research approach is quantitative surveys, with Scopus and Web of Science as the primary databases. Finally, the most widely used theories are Social Identity Theory and the Theory of Planned Behavior, which emphasize the importance of attitudes, identification, and social exchange in shaping EPEB.

This study makes three important contributions. First, it enriches the understanding of Green HRM in developing countries by identifying contextual trends, methodological

preferences, and dominant theoretical foundations. Second, it provides a strong conceptual foundation for further research by mapping key theories and opening up opportunities for the development of new conceptual frameworks. Third, it offers practical recommendations for HR managers and policymakers in developing countries to design and implement Green HRM practices that not only support sustainability goals but also enhance employee engagement and overall organizational performance.

However, there are several limitations that need to be acknowledged. This review was limited to English-language publications, potentially excluding valuable insights from local-language literature. The database coverage used only Scopus and Web of Science, potentially missing relevant studies from other databases. The inclusion criteria focused on indexed and peer-reviewed academic sources, thus excluding grey literature such as government reports or working papers, which may contain innovative practices. Furthermore, publication bias is also possible, as studies with positive findings on Green HRM are more likely to be published.

Based on these limitations, further research is recommended to explore several new directions. First, conducting empirical studies across developing countries to uncover contextual variations in the adoption and effectiveness of Green HRM. Second, paying closer attention to mediating and moderating variables—such as organizational commitment, job satisfaction, or leadership style—to deepen our understanding of the mechanisms linking HR practices to EPEB. Third, research focusing on specific industry sectors (e.g., manufacturing, hospitality, or technology) is needed to capture unique sectoral dynamics. Fourth, a longitudinal approach is essential to assess the long-term impact of Green HRM on employee behavior and organizational performance. Furthermore, qualitative and mixed-methods studies can also provide a richer understanding of employee experiences and organizational dynamics in the context of sustainability-oriented HR.

In conclusion, Green HRM has proven to be a crucial driver of pro-environmental employee behavior and a key enabler of organizational sustainability, particularly in developing countries. Future development of this field requires both theoretical refinement and empirical expansion across contexts, so that HR practices can contribute more effectively to achieving global sustainability goals.

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