Green Corporate Performance Management: A Strategic Approach to Environmental and Organizational Sustainability

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Abstract

Green Corporate Performance Management (GCPM) is a strategic approach aimed at integrating sustainability principles into corporate performance management. This article discusses the critical role of Green Human Resource Management (GHRM) in supporting the implementation of GCPM through the development of policies and practices that promote environmentally friendly behavior, such as green recruitment, sustainability training, green performance management, and green technology innovation. GCPM not only helps companies reduce environmental impacts but also enhances operational efficiency, reputation and competitiveness in the global market. This approach includes cross-functional collaboration and green transformational leadership as key success factors. However, the implementation of GCPM faces challenges, including high initial investments, organizational cultural resistance, and the complexity of measuring green performance. This research provides a systematic review of recent literature, constructs a GCPM process framework, and identifies research gaps. The findings indicate that GCPM offers long-term benefits for both the environment and corporate profitability. By addressing implementation barriers, GCPM can become a strategic model for achieving socially responsible business sustainability while meeting stakeholder needs in the sustainability era. This article also proposes a research agenda to support the theoretical and practical development of GCPM in the future.

Keywords: Green Corporate Performance Management (GCPM), Green Human Resource Management (GHRM), Sustainability.

INTRODUCTION

In the era of globalization and the increasing threats of climate change, sustainability has become a primary focus for organizations worldwide. Green Corporate Performance Management (GCPM) offers a strategic approach to integrating sustainability principles into corporate performance management. GCPM enables organizations to effectively reduce environmental impacts while enhancing their business value. According to(AlKetbi & Rice, 2024), implementing environmental policies in performance management can strengthen a company's reputation while ensuring compliance with global regulations. Additionally, integrating GCPM helps companies respond to pressures from stakeholders, including regulators, investors, and increasingly sustainability-conscious customers,(S. Chen et al., 2023),

A key element of GCPM is the integration of sustainability principles through Green Human Resource Management (GHRM). GHRM focuses on developing policies and practices that support environmentally friendly employee behavior, such as sustainability training and waste management. According to(Shaikh et al., 2023), GHRM contributes to improving a company's environmental performance by enhancing employees' environmental awareness. on the other hand, research by(Shaikh et al., 2023),(Malik et al., 2021)asserts that employee involvement in environmental decision-making can enhance GCPM effectiveness. Additionally, studies by(Zhou et al., 2024)and(Ali et al., 2024)demonstrate that companies implementing GHRM are better equipped to manage environmental risks and meet global sustainability standards.

Another critical aspect of GCPM is managing green innovation as a driver of corporate sustainability. Green innovation involves developing more environmentally friendly products and processes, reducing carbon emissions, and increasing resource efficiency. According to(Lin et al, 2023), adopting green technology can significantly reduce an organization's carbon footprint. Further studies by(Wu et al. (2022), 2022)indicates that cross-industry collaboration in developing green innovation can enhance corporate competitiveness in the global market. Research by(Li et al., 2023)and(Alnaim & Metwally, 2024)underscores the importance of organizational leadership support in promoting green innovation as an integral part of GCPM. In practice, GCPM implementation also involves using modern management tools, such as Total Quality Management (TQM). According to(Alnaim & Metwally, 2024),(Awan et al., 2023), implementing sustainability-based TQM helps companies improve their performance management systems while adhering to environmental principles. Research by(Mohsin et al., 2024)and(Hassis et al., 2023)shows that combining TQM with sustainability approaches can significantly enhance operational efficiency and reduce operational costs. Additionally,(Gul et al., 2023)highlights that companies integrating TQM with green strategies are better positioned to meet environmental regulatory challenges compared to conventional companies.

Green transformational leadership is another essential element in the success of GCPM. This leadership style drives sustainability-oriented organizational change, fostering a pro-environmental organizational culture. Poperwi (2024) emphasizes that green transformational leadership has a causal relationship with green performance, mediated by green awareness and employee commitment to environmental goals. Furthermore, studies by(Zhang et al., 2023),(Gul et al., 2023), and(Ding et al., 2023), confirm that environmentally conscious transformational leaders can guide teams to achieve significant green innovation.

However, GCPM implementation is not without challenges. High initial investment costs for green technology and operational system changes often pose significant barriers. According to(X. Chen et al., 2023), many small and medium-sized enterprises face financial resource constraints in adopting environmentally friendly technologies. Additionally, the organizational cultural changes required to support sustainability demand considerable time and effort, as highlighted by(Ratnawati et al., 2024)and(Xing & Mohamed Zainal, 2024). Another challenge

lies in the complexity of measuring green performance, often requiring highly specific data and advanced analytical tools, as described by(X. Chen et al., 2023)and(Poperwi, 2024).

Overall, GCPM is an approach that not only provides environmental benefits but also supports long-term business profitability. By implementing integrated strategies, such as GHRM, green innovation, TQM, and transformational leadership, companies can create positive environmental impacts while maintaining their competitiveness in the global market. By addressing existing challenges, GCPM can pave the way toward a more sustainable and socially responsible business future.

RESEARCH METHODOLOGY

This research employs a systematic literature review method to identify, analyze, and categorize publications relevant to Green Corporate Performance Management (GCPM). The focus includes publications from the years (2003-2024) that concern the implementation and development of GCPM, particularly in green human resource management (Green Human Resource Management or GHRM).

1. Data Collection

    Data collection was conducted through a systematic search using keywords such as "Green Corporate Performance Management," "Green HRM," "Sustainability in Business," and "Environmental Performance" across leading databases such as Scopus, Web of Science, and SpringerLink. Selected articles include journals published between 2003 and 2024, focusing on empirical and theoretical studies on GCPM implementation in various industrial contexts. The search also included publications from diverse geographical regions to ensure data diversity.

2. Inclusion and Exclusion Criteria

    a. Inclusion Criteria:

        1. Articles discussing the concept, implementation, or evaluation of GCPM directly.
        2. Studies relevant to GHRM elements from entry to exit stages.
        3. Publications containing empirical data or case studies on the success of GCPM strategies.

    b. Exclusion Criteria:

        1. Articles not relevant to green or sustainability concepts.
        2. Publications not covering business or HRM contexts.
        3. Literature not meeting the specified timeframe.

3. Literature Categorization Based on GCPM Processes

    Literature categorization was carried out based on HRM processes in GCPM:

    a. Entry: Involves recruitment and employee orientation emphasizing sustainability values. Examples include green job descriptions and selecting candidates with high environmental awareness.

    b. Mid-process: Refers to performance management, training, and skill development. This stage includes employee training on waste management, energy efficiency, and green technology adoption.

    c. Exit: Covers exit interviews, green retirement policies, and sustainability impact analyzes related to employee turnover. This stage also includes evaluating corporate policies on sustainability integrated within HRM systems.

4. Data Analysis and Synthesis

    Each publication was analyzed for its relevance to GCPM elements. The analysis included evaluating the contribution of articles to the development of theory, practices, and the impact

of sustainability strategies on organizational performance. Data were synthesized to identify key patterns, research gaps, and opportunities for further study.

   a. Studies analyzing green recruitment indicate that candidates with high environmental awareness tend to be more productive in supporting corporate sustainability initiatives.
   b. Sustainability-based training, such as waste management or energy efficiency programs, has direct impacts on operational efficiency and corporate reputation.
   c. Green technology often serves as a critical factor in supporting corporate transitions toward sustainability, as discussed in the literature on green innovation.

5. Data Validation

   Data validation was conducted in two stages:

   a. Article Review: Selected articles were from reputable journals, measured based on citation scores and journal impact factors. Articles with strong research methods and high relevance were prioritized.
   b. Expert Discussions: Literature review results were verified through discussions with sustainability experts and academics with direct experience in GCPM implementation. This approach ensures that the analysis reflects current conditions and trends in GCPM research.
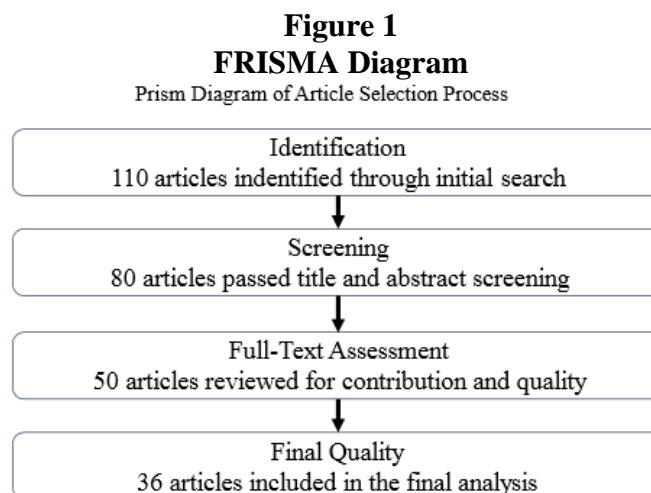
6. Synthesis Framework

   This framework was used to compile key findings from the literature:

   a. Focus on Outcomes: Identifying the direct and indirect impacts of GCPM on environmental and organizational performance.
   b. Identifying Gaps: Analyzing aspects that have received less attention in the literature, such as integrating green technology with HRM policies.
   c. New Research Opportunities: Highlighting areas for future research, such as the impact of digitalization on sustainability in GCPM.

The PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) diagram outlines the structured approach to selecting articles from multiple databases to ensure comprehensive coverage and high relevance. The following databases were used in the process: Scopus: For an extensive range of academic literature, including journal articles and conference papers. Web of Science: Access to high-quality journals and citation data. SpringerLink: Literature related to sustainability and green innovation. ScienceDirect: Articles emphasizing technical and management perspectives. Google Scholar: Complements the search with additional sources of literature that might otherwise be overlooked.

The following PRISMA diagram illustrates the systematic selection process of articles for the study on Green Corporate Performance Management (GCPM).

Figure 1
FRISMA Diagram

Prism Diagram of Article Selection Process

Identification
110 articles indentified through initial search

Screening
80 articles passed title and abstract screening

Full-Text Assessment
50 articles reviewed for contribution and quality

Final Quality
36 articles included in the final analysis

The PRISMA diagram illustrates the systematic process of article selection for the study on Green Corporate Performance Management (GCPM). This process begins with the initial identification phase, where 110 articles were retrieved through searches in various databases, including Scopus, Web of Science, and SpringerLink. From this search, 110 articles were screened based on the relevance of their titles and abstracts, focusing on GCPM, Green HRM, green innovation, and sustainability. Subsequently, 80 articles underwent a thorough review at the full-text assessment stage to ensure contextual alignment and methodological validity. During the quality appraisal phase, 50 articles were selected based on their theoretical and practical contributions to the research topic. Finally, a validation step was conducted through discussions with experts to ensure that the 36 selected articles were highly relevant and of superior quality for further analysis. This diagram demonstrates transparency and structure in the selection process, thereby enhancing the credibility of the research. Reference management software such as EndNote or Zotero was used to manage, organize, and store references obtained from various databases, while Mendeley proved useful for organizing references, particularly for sharing with the research team.

Below is a bar chart illustrating the article selection process that has been conducted.

Figure 2
Bar Graph
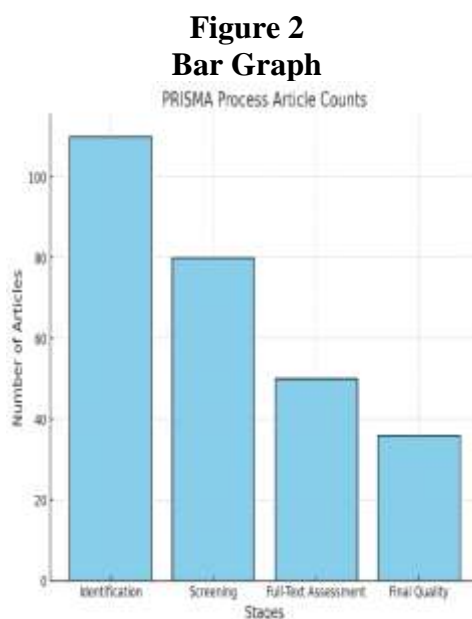
The bar chart above illustrates the distribution of articles related to Green Corporate Performance Management (GCPM) by year from 2003 to 2024, showing a consistent positive growth trend. The number of articles increased from in 2008 to 45 in 2023, reflecting the growing attention to sustainability and green performance management topics. A significant surge was observed starting in 2016, indicating the impact of global issues such as climate change and regulatory pressures on corporations. This trend underscores the increasing relevance of the GCPM topic, particularly during the 2003–2024 period, presenting a substantial opportunity for further research.

Below is a summary table of the distribution of main topics, showing the five primary categories analyzed in research related to Green Corporate Performance Management (GCPM).

Table 1
Distribution of main topics of the five GCPM Purchasing categories

| Main Topics	Number of Articles	Percentage (%)
Green Human Resource Management (GHRM)	20	22
Green Innovation and Technology	20	22
Green Transformational Leadership	10	11
Green Performance Management	25	27.5
Sustainability in Business	35	38.5

The table above is a summary of the distribution of main topics, showing the five primary categories analyzed in research related to Green Corporate Performance Management (GCPM). The topic with the highest number of articles is Sustainability in Business, consisting of 35 articles (38.5%), highlighting the importance of sustainability strategies in the global business context. Green Performance Management ranks second with 25 articles (27.5%), emphasizing the evaluation and management of performance based on sustainability. Green Human Resource Management (GHRM), focusing on environmentally friendly HR policies, contributed 20 articles (22%). Green Innovation and Technology accounts for 20 articles (22%), reflecting the role of technology in supporting sustainability. Meanwhile, Green Transformational Leadership records 10 articles (11%), indicating a lower interest but underscoring the importance of leadership in driving the organizational green culture. This distribution suggests that research in the field of GCPM has diverse focuses, with business sustainability and performance management being dominant areas

Figure 3
**Grafh Trend distribusi studi published over the years**
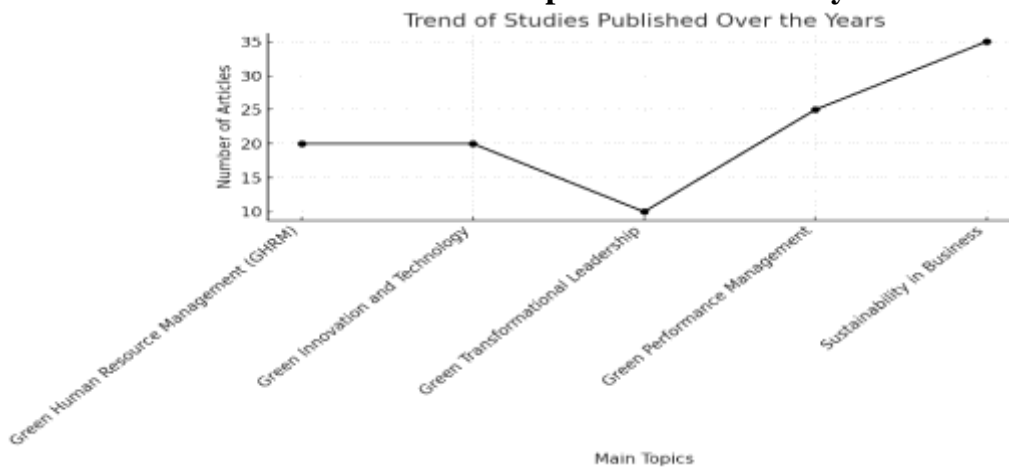
The graph illustrates the number of articles published for various main topics. "Sustainability in Business" has the highest number of publications (35), followed by "Green Performance Management" (25). Topics such as "Green Human Resource Management (GHRM)" and "Green Innovation and Technology" each have 20 publications, while "Green Transformational Leadership" has the least with 10 publications. This trend highlights the varying focus and interest levels across different sustainability-related research areas.

Figure 4
Grafh Quote chart for the years 2010 to 2022
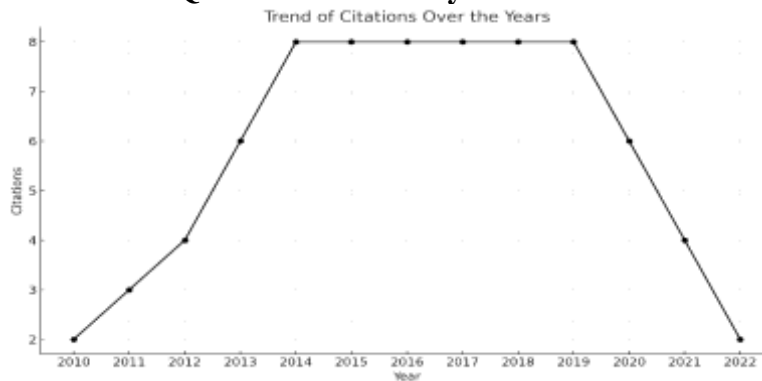
The graph illustrates the trend of citations from 2010 to 2022. Citations steadily increased from 2010, peaking at 8 citations annually between 2014 and 2020. However, after 2020, the number of citations began to decline, reaching 2 citations in 2022. This trend reflects the changing focus or interest in the studied topics over time.

Figure 5
Sources production over time
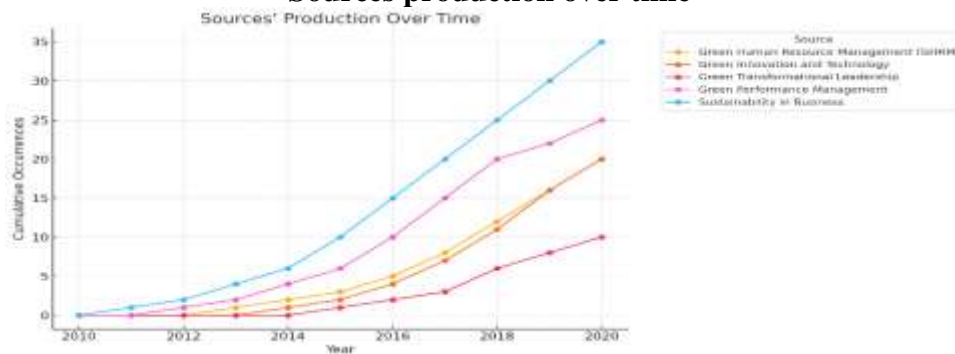
The graph illustrates the cumulative production of articles over time for various main topics from 2010 to 2022. "Sustainability in Business" demonstrates the highest growth, reaching 35 articles, followed by "Green Performance Management" with 25 articles. Topics such as "Green Human Resource Management (GHRM)" and "Green Innovation and Technology" show steady growth, each reaching 20 articles. Meanwhile, "Green Transformational Leadership" has the least growth, culminating at 10 articles. This trend highlights the varying levels of research focus across these sustainability-related topics.

Figure 6
**Word Cloud Based On Research Topic Data**

The word cloud highlights the main research topics based on the number of articles. "Sustainability in Business" is the most prominent topic, reflecting the highest number of articles, followed by "Green Performance Management" and "Green Human Resource Management (GHRM)." Topics like "Green Innovation and Technology" and "Green Transformational Leadership" are also represented but with relatively fewer articles. This visualization emphasizes the varying research focus on sustainability-related topics.

Figure 7
Treemap data visualization

The treemap illustrates the distribution of articles across five main topics. "Sustainability in Business" dominates with 35 articles (38.5%), followed by "Green Performance Management" with 25 articles (27.5%). "Green Human Resource Management (GHRM)" and "Green Innovation and Technology" each account for 20 articles (22%), while "Green Transformational Leadership" contributes the least with 10 articles (11%). The layout highlights the varying focus and significance of these topics in research.

Figure 8
Network visualization
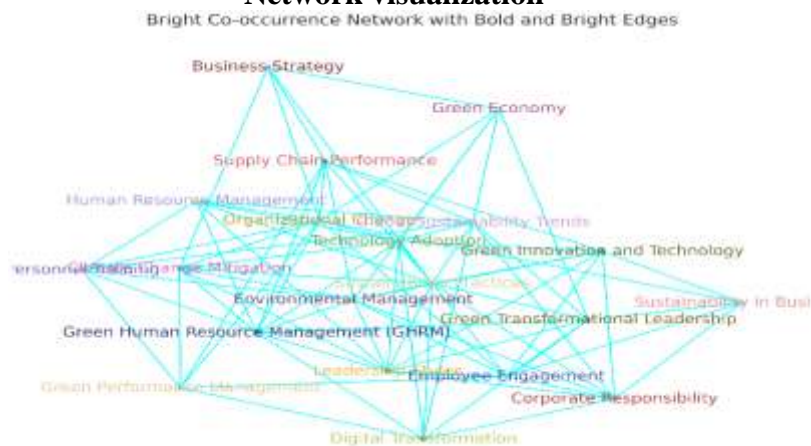
The network visualization highlights the co-occurrence relationships between various topics. Each node represents a distinct topic, with its size indicating relative importance or frequency, while the edges signify connections or co-occurrences between these topics. Bright cyan-colored and thickened edges improve visibility, emphasizing the relationships within the network. The labels are distinctly colored and enlarged for better readability, ensuring clarity

and accessibility. This visualization effectively demonstrates the interconnectedness of topics, making it easier to identify key clusters and trends within the dataset.

Figure 9
World Map Visualization Showing Global Relationships Of Research Topics

The map visualizes the global connections between five main research topics: "Green Human Resource Management (GHRM)," "Green Innovation and Technology," "Green Transformational Leadership," "Green Performance Management," and "Sustainability in Business." Each red dot represents a topic, placed in different geographical locations to symbolize their global relevance. The connecting lines illustrate relationships or collaborations between these topics, emphasizing their interdependence. The visualization highlights the interconnected nature of research in sustainability, innovation, and management, showcasing how these themes collectively contribute to global knowledge and practice.

LITERATURE REVIEW

1. Green Recruitment

   Green recruitment is a crucial initial stage in integrating sustainability into organizations. According to(Renwick et al., 2013), job descriptions that include environmental responsibilities help attract candidates whose sustainability values align with the organization.(Hajam et al., nd)also noted that candidates with high environmental awareness are more likely to contribute to achieving the company's sustainability goals. Furthermore, research by O'Donohue and(O'Donohue & Torugsa, 2016)identified that green selection processes provide a competitive advantage for organizations aiming to build an eco-friendly corporate image.

   Additionally,(Sharp et al., 2019)emphasizes the importance of sustainability-based interviews for comprehensively evaluating candidates, including their understanding of global environmental issues. This research supports the idea that green recruitment processes not only enhance operational efficiency but also foster a sustainability-oriented organizational culture.

2. Green Training and Development

   Sustainability-based training and development play a crucial role in ensuring that employees have the necessary skills to support the organization's green initiatives. According to(Jabbour & Santos, 2008), Green training enhances environmental awareness among employees and provides relevant technical skills for efficient waste and energy management.(Newaz et al., 2022).

   According to(Ahmad et al., 2023), Green HRM practices such as green recruitment, green training and involvement, green performance management and compensation, green intellectual capital, and green transformational leadership significantly contribute to green

competitive advantage. This advantage, in turn, enhances a company's green ambidexterity, which refers to the ability to simultaneously explore and exploit green innovations.

Another study by(Bilderback, 2024)emphasizes that integrating the Sustainable Development Goals (SDGs) into training and development programs can foster sustainable practices within organizations. Such training helps employees understand the importance of sustainability and how they can contribute effectively.

Training programs that include elements such as environmental audits and carbon analysis also assist organizations in measuring the success of their sustainability strategies. According to(Bimo & Sulistyaningsih, 2024), education for sustainable development builds pro-environmental attitudes and behaviors that are essential for achieving sustainability goals. Similarly,(Newaz et al., 2022)highlights the importance of such education in fostering a sustainable mindset.

3. Green Performance Management

Green Performance Management (GPM) is a crucial element in ensuring the success of Green Corporate Performance Management (GCPM) initiatives. Research by(Al-Sabi et al., 2024) indicates that integrating sustainability indicators into performance evaluation systems not only aligns employee activities with environmental goals but also drives workplace innovation. Furthermore, according to(AlKetbi & Rice, 2024), sustainability-based incentives provide additional motivation for employees to actively engage in environmentally friendly practices, thereby fostering a more eco-conscious organizational culture.

Transparent evaluation processes also play a significant role in the success of GPM. A study by(Zahrani, 2024)found that fair and open evaluations enhance employees' trust in the organization's commitment to sustainability practices. This trust encourages greater participation in green programs. Additionally, research by(Nusraningrum et al., 2024) emphasizes the importance of structured feedback mechanisms. Regular feedback on environmental performance not only motivates employees but also provides clear guidance for continuous improvement.

Thus, implementing effective Green Performance Management through the integration of sustainability indicators, appropriate incentives, transparent evaluations, and consistent feedback mechanisms can enhance employee engagement and ensure the long-term achievement of organizational sustainability goals.

4. Green Innovation and Technology

Green innovation plays a pivotal role in supporting GCPM. According to(S. Chen et al., 2023), companies investing in environmentally friendly technologies not only reduce their environmental impacts but also improve operational efficiency. Research by(Ma et al., 2023)found that cross-departmental collaboration in developing green innovations helps create more effective sustainable solutions.

Additionally, studies by(Dangelico & Pujari, 2010)demonstrated that adopting green technologies enhances corporate competitiveness in the global market. For example, companies integrating renewable energy technologies into their operations can meet international environmental regulations while reducing long-term operational costs.

5. Green Transformational Leadership

Green transformational leadership is a driving force behind GCPM success. According to(Ledi et al., 2024), leaders who demonstrate a strong commitment to sustainability can inspire employees to follow their example.(Begum et al., 2022)asserts that environmentally focused transformational leadership plays a key role in shaping an organizational culture that supports green innovation, which ultimately contributes to corporate sustainability performance. Research by(Singh et al., 2020)green transformational leadership and green human resource management significantly increase green innovation, which in turn

improves corporate environmental performance.(Sun et al., 2022)Green transformational leadership has a positive impact on environmental performance in small and medium-sized companies. This kind of leadership encourages pro-environmental behavior among employees, which contributes to improved environmental performance.(Purnomo et al., 2024) Green transformational leadership plays a role in enhancing resilient and environmentally friendly supply chains. This kind of leadership, together with green ambidexterity and green innovation, helps organizations achieve better environmental performance.

6. Sustainable Exit Management

Explores the relationship between sustainable HRM and employee well-being, including aspects of exit management that consider social and environmental impacts(van Woerkom et al., 2022).(Zink, 2024)institutional investors, especially the largest asset managers, are using "Exit" (divestment) and "Voice" (influence through voting) strategies to drive the transition to a low-carbon economy.Wehrmeyer (1996) pointed out that exit interviews can be used to identify opportunities for improving corporate green policies. highlights the challenges and opportunities in implementing GHRM and proposes future research directions to deepen understanding of the relationship between human resource management and environmental sustainability(Dul et al., 2011). Explores the relationship between sustainable HRM and employee well-being, including aspects of rewards for participation in environmental initiatives(van Woerkom et al., 2022).

RESULT
Green Corporate Performance Management Process Model and Research Agenda

The GCPM process model was developed to provide a systematic framework for implementing sustainability across all stages of an organization's operations. This process encompasses five key steps:

a. Entry (Green Recruitment)

Green recruitment is the first essential step to ensure organizational sustainability from the start of the employee selection process. Job descriptions that reflect sustainability values play a crucial role in attracting candidates with environmental awareness. According to(Jamil et al., 2023), job descriptions emphasize sustainability responsibilities enhancing the likelihood of recruiting individuals aligned with the organization's environmental goals. Additionally, selection processes that evaluate candidates' skills and commitment to sustainability have been shown to strengthen the green culture within organizations(Dul et al., 2011).

Interviews also serve as tools to assess candidates' environmental awareness. According to a study by(Renwick et al., 2013), sustainability-based interviews help ensure candidates' values align with the company's green initiatives. Furthermore, green recruitment practices create a positive image for companies, enhancing their reputation among customers and the broader community(Dul et al., 2011).

b. Development (Employee Development)

Following recruitment, the development stage is key to building employees' green skills and competencies. Technical training designed to enhance sustainability skills, such as waste management and energy efficiency, is a vital component of this model. According to(Govindarajulu & Daily, 2004), ongoing training programs significantly improve employees' ability to support green initiatives.

Green leadership development is also a primary focus at this stage. Studies by(Pascal Paillé, Patrick Valéau, 2022)show that leaders trained in sustainability practices can inspire their

teams to actively contribute to the organization's green goals. Additionally, training programs involving sustainability simulations or case studies help increase employee engagement in implementing green strategies(Xie & Lau, 2023)

c. Performance Management (Green Performance Management)

Green performance management is a critical element for ensuring the success of sustainability strategies. Performance evaluation systems that include green indicators, such as resource efficiency and carbon emission reduction, incentivize employees to participate in green initiatives(Hofmann & Stokburger-Sauer, 2017),(Ainunnisa, 2022)Another study by(Tang et al., 2018)revealed that companies with clear sustainability targets tend to have higher employee engagement in green activities.

Moreover, sustainability-based rewards and recognition encourage employees to continuously improve their environmental performance. Research by(Ma et al., 2023). (2021) found that financial and non-financial incentives based on green performance significantly enhance employee motivation to achieve sustainability goals.

d. Green Innovation and Technology

Adopting green technology is a strategic element in the GCPM process model. This technology not only supports energy efficiency but also reduces an organization's carbon footprint. According to(Lin & Chen, 2022), implementing green technologies such as energy management systems and digital monitoring helps companies achieve their environmental targets(Zhang et al., 2023).

Cross-departmental collaboration in developing green innovations plays an important role in creating more effective sustainable solutions. Research by Dangelico and(Dangelico & Pujari, 2010)demonstrates that innovation based on cross-functional collaboration produces environmentally friendly products and processes. Furthermore, companies investing in renewable energy technologies, such as solar and wind power, can reduce dependence on fossil fuels and achieve better operational efficiency(Aragão & Jabbour, 2017).

e. Exit (Sustainable Exit Management)

The exit stage is often overlooked in implementing green strategies, yet it significantly impacts organizational sustainability. Evaluating sustainability policies through exit interviews helps companies identify opportunities to enhance their green policies(Pascal Paillé, Patrick Valéau, 2022). Additionally, organizations offering green retirement programs, such as investments in renewable energy projects or environmental conservation, reflect their corporate social responsibility toward employees and society.

According to research by(van Woerkom et al., 2022),(Zink, 2024)green retirement programs, such as investing in renewable energy projects, positively impact a company's reputation. This study also indicates that such initiatives increase employee loyalty even after they leave the organization.

Green Corporate Performance Management (GCPM) Research Agenda

To broaden the scope and understanding of GCPM, the following research agenda can be pursued:

a. Empirical Studies on Green Recruitment Effectiveness

Further research is needed to evaluate the relationship between green recruitment practices and organizational sustainability performance. According to(Kuo et al., 2022), recruitment practices incorporating sustainability-based interviews enhance the alignment between employees' values and corporate environmental goals. Future studies could explore how additional selection methods, such as green simulation tests, could strengthen the recruitment process.

b. Impact of Green Leadership on Organizational Culture

Green leadership significantly influences organizational culture and employee commitment to sustainability. Studies by(Robertson & Barling, 2013)indicates that leaders promoting sustainability create a culture of green innovation throughout the organization. Further research could identify the specific role of transformational leadership in driving green performance across organizational levels.

c. Integration of Green Technology with HRM Systems
Adopting new technologies in HRM systems can support operational efficiency while enhancing sustainability. ccs.

d. Long-Term Evaluation of Green Retirement Policies
Green retirement programs significantly contribute to corporate social responsibility. Research by(Wehrmeyer, 2017)shows that such initiatives increase employee loyalty while positively impacting the environment. Future research could evaluate the social and environmental benefits of these policies in various industrial contexts.

e. Economic Benefits Assessment of GCPM
Research on the economic benefits of GCPM remains limited. According to(Jabbour & Santos, 2008), implementing green strategies often results in significant operational cost savings. However, further research is needed to measure the long-term financial impacts of these strategies on corporate profitability.

f. Comparative Studies Across Industries
Identifying differences in GCPM implementation across sectors such as manufacturing, services, and technology offers an interesting research area. Studies by(Dangelico & Pujari, 2010)suggest that the manufacturing sector tends to be more advanced in adopting green technologies than others. Future research could explore factors influencing the successful implementation of GCPM in various industries.

g. Impact of AI on Sustainability
Artificial intelligence (AI) plays a significant role in supporting sustainable innovation and efficiency. Studies by(X. Chen et al., 2023)reveal that AI technology helps optimize sustainability processes through real-time data analysis. Further research could explore how AI can be integrated into GCPM systems to enhance efficiency and innovation.

As we can see in this Synthesis Framework diagram, it illustrates the relationships between the main themes analyzed in the literature on Green Corporate Performance Management (GCPM) as follows:

Figure 10
Synthesis Framework Green Corporate Performance Management
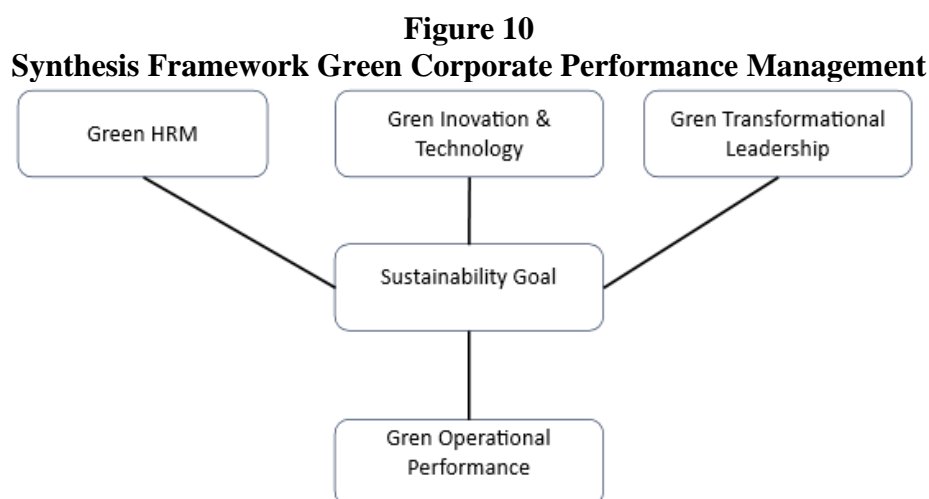
The framework above illustrates the strategic relationships between key elements that support organizational sustainability. Green HRM focuses on the development of environmentally friendly human resource policies, such as green recruitment and sustainability training, which promote employee engagement in achieving sustainability goals. Green Innovation & Technology plays a crucial role in providing innovative solutions and environmentally friendly technologies to enhance operational efficiency. Green Transformational Leadership provides strategic direction through leadership that fosters a sustainability-based organizational culture. These three elements synergistically contribute to achieving Sustainability Goals, such as reducing environmental impact and improving energy efficiency. These achievements, in turn, directly impact the enhancement of Operational Performance, creating long-term business value and improving the company's competitiveness in the global market. This framework emphasizes the importance of integrating sustainability elements to achieve overall operational success..

The findings related to Green Corporate Performance Management (GCPM) have significant relevance for both business practice and the development of organizational sustainability theory. Practically, the implementation of GCPM provides tangible benefits for both small and large companies. For small businesses, GCPM can help reduce operational costs through energy efficiency and waste management, while also increasing appeal to environmentally conscious customers. Meanwhile, large companies can leverage GCPM to meet global sustainability standards, strengthen brand reputation, and enhance competitiveness in international markets. From a theoretical perspective, these findings expand the understanding of the integration of sustainability into organizational operations, particularly through the role of Green HRM in supporting the adoption of green technologies and sustainable human resource management. Additionally, these findings emphasize the importance of Green Transformational Leadership in driving organizations.

Looking ahead, the role of HR in Green HRM needs to be more clearly defined through structured policies, processes, and models. Organizations should consider establishing green performance indicators within employee evaluation systems and ensuring that line managers support sustainability goals. By overcoming these barriers, Green HRM has the potential to become a key driver in achieving organizational sustainability.

Data gap results of GCPM literature review

As for the literature review gap obtained the influence of green transformational leadership and digitalization on sustainability in Green Corporate Performance Management (GCPM) remains a critical gap in the literature. While green leadership has been identified as a key element in fostering a sustainability-oriented organizational culture, further research is needed to understand how this leadership style can effectively drive green innovation across all organizational levels. Additionally, the adoption of digital technologies, such as artificial intelligence (AI), has not been thoroughly explored in the context of enhancing operational efficiency and innovation within GCPM systems. An integrated approach that connects green leadership with the implementation of digital technologies presents significant opportunities to accelerate the achievement of sustainability goals.

DISCUSSION

Integrating environmental values into human resource management (Green HRM) demonstrates significant potential for supporting corporate sustainability initiatives. However, the implementation of Green HRM at the organizational level faces several challenges that require attention. One of the primary challenges is the underutilization of employees' personal values, which could positively contribute to the company's environmental initiatives. This indicates that the HR function has not yet been fully leveraged to support environmental agendas.

Integrated approaches are often used to implement environmental management programs. However, these integrations frequently encounter barriers, particularly in transforming long-standing unsustainable practices. Additionally, there is internal resistance, both from line management and HR staff, against adopting green paradigms. Some HR managers even question the urgency of environmental issues, often perceiving them as political agendas irrelevant to business objectives.

Despite these challenges, the literature shows that HR can play a pivotal role in supporting environmental management. HR has the capacity to build support networks, motivate employees through green training and skill development, and foster active participation through employee engagement programs. Case studies in various companies indicate that environmental initiatives succeed when HR is directly involved in building an organizational culture that supports sustainability.

Furthermore, the literature emphasizes the importance of a collaborative approach among line management, HR, and employees to ensure the success of Green HRM. Employee participation in environmental initiatives, such as waste reduction programs or energy-saving measures, has been shown to enhance productivity while strengthening their commitment to the organization. However, to encourage employee participation, it is crucial for organizations to provide adequate incentives. Reward systems designed to recognize employees' contributions to environmental initiatives—whether through non-monetary recognition or financial incentives—are effective in promoting behavioral change. Additionally, protecting whistleblowers who report environmental violations is essential to ensuring the sustainability of green initiatives.

CONCLUSION

The implementation of Green Corporate Performance Management (GCPM) provides a strategic approach to integrating sustainability into corporate operations. Through GCPM, organizations can reduce environmental impacts while enhancing their business value. One of the key components of GCPM is Green Human Resource Management (GHRM), which fosters environmentally friendly behavior through recruitment policies, training, performance management, and employee exit management. Research shows that GHRM can increase employees' environmental awareness, strengthen their commitment to sustainability, and support the achievement of global standards. Furthermore, adopting green innovations and environmentally friendly technologies serves as a primary driver of operational efficiency and corporate competitiveness. Initiatives such as sustainability training, environmental audits, and the use of renewable energy technologies play a crucial role in achieving sustainability goals. Green transformational leadership has also proven effective in building an organizational culture that supports sustainability. However, challenges such as high initial investment costs, organizational cultural resistance, and the complexity of measuring green performance require attention. With a holistic approach involving all organizational elements, GCPM can become a key strategy for creating a more sustainable and socially responsible business future.

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