

# Green Human Resource Management in South Asia: Through the Lens of Bibliometric Analysis, Theories and Operational Functions

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## Abstract

This study explores core principles and emerging trends in green human resource management (GHRM), with a focus on the South Asian context. Using the PRISMA framework, a review of 69 publications from 2001 to 2023 was conducted to examine the intersection of environmental management and human resource practices. The review reveals a growing interest in GHRM since 2015 but highlights a significant gap in addressing sociocultural nuances specific to South Asia. The analysis covers various GHRM operational functions, including green recruitment, procurement, maintenance and development, and it provides a comprehensive overview of key research areas and theoretical frameworks. Despite increased research activity, a lack of focus on sociocultural issues such as gender, diversity and industrial relations in South Asia is evident. Findings suggest a need for further research to address these gaps and to understand institutional challenges in implementing GHRM practices. An integrated approach and collaboration with external stakeholders are recommended to advance GHRM in emerging economies.

## Keywords

Green human resource management, bibliometric analysis, South Asia, environmental management practices

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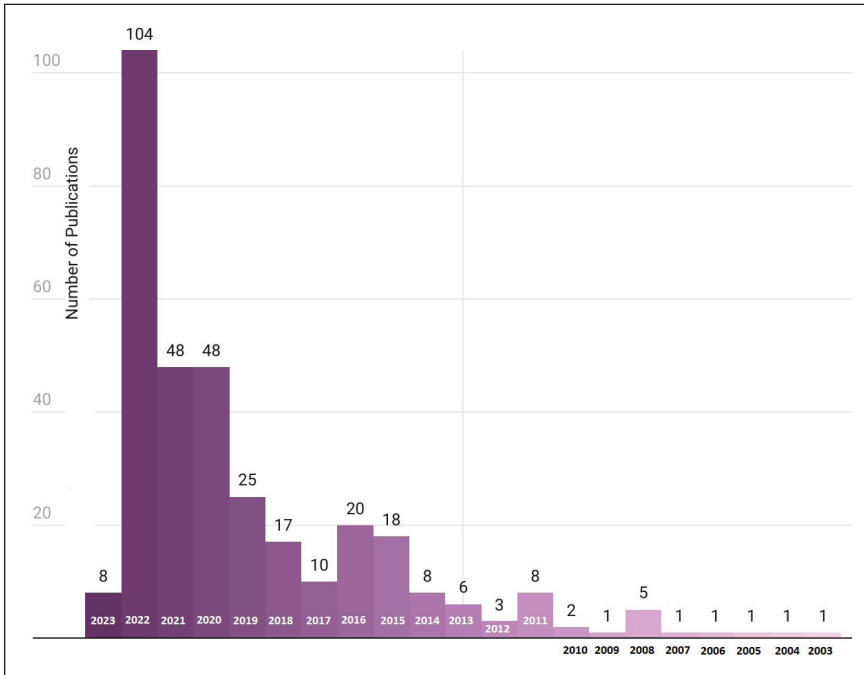
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## Introduction

South Asia faces severe environmental degradation due to rapid urbanisation, industrialisation and population growth, making it highly vulnerable to climate change, with countries like Bangladesh and India experiencing extreme weather events that disproportionately affect poorer populations (Kar et al., 2021). These challenges, combined with issues such as food security, water management and biodiversity loss, are distinct from those in regions like Europe and North America, where more effective mitigation strategies exist (Kar et al., 2021). The role of cultural values and institutional weaknesses, including corruption and poor enforcement of environmental regulations, further complicates sustainability efforts in South Asia, which contrasts with regions that have stronger governance (Hassan, 2015). The COVID-19 pandemic has exacerbated the trade-offs between economic recovery and sustainability, with South Asian countries often prioritising short-term growth over environmental considerations (Jain et al., 2023). Furthermore, the region's large informal economy, employing around 85% of workers in India, requires sustainability strategies that incorporate informal sectors like agriculture and construction, unlike in Europe where formal employment dominates (Sharma & Kumar, 2019). Despite the increasing global pressure to integrate environmental, social and governance (ESG) criteria, and India's evolving Corporate Social Responsibility (CSR) mandate, challenges remain in the transparency and accountability of sustainability initiatives in South Asia (Gazi et al., 2024). These challenges have increasingly received global attention, as evidenced by the growing body of research on sustainable practices. Figure 1 illustrates the growth of green human resource management (GHRM) research from 2001 to February 2023, as determined by the number of articles on SCOPUS with GHRM as the subject matter.

In light of the pressing environmental degradation driven by rapid urbanisation, industrialisation and population growth, there is an increasing recognition of the importance of environmental sustainability in South Asia. National governments are setting more ambitious environmental targets, and civil society engagement with environmental issues is rising. Consequently, organisations are integrating environmental management into their business models, acknowledging that GHRM is essential for implementing effective green strategies. This growing awareness is further evidenced by the increasing number of studies published in South Asian countries, highlighting the region's shift towards sustainability practices.

Despite this burgeoning body of research, there is a notable absence of comprehensive reviews focusing specifically on South Asia to evaluate the current state of GHRM research within the region. This gap stresses the necessity for a systematic review that synthesises existing literature and identifies key trends and areas for future exploration. While the integration of GHRM into business models reflects a broader commitment to sustainability, significant gaps remain in understanding how GHRM is theorised, measured and implemented in the South Asian context. The global surge in GHRM research over the past two decades highlights the field's expansion; however, the specific sociocultural and institutional factors influencing GHRM practices in South Asia remain underexplored. This review aims to address these gaps by providing a detailed examination of the theoretical



**Figure 1.** Number of Articles Published Annually from 2001 to 2023 as Ascertained from the SCOPUS Databases.

frameworks and operational functions that are relevant to GHRM. The insights gained will offer a more nuanced understanding of effective GHRM practices in South Asia, considering the region's unique cultural, economic and political landscape. The primary objective of this review is to conduct a thorough classification of the existing literature on GHRM, taking into account both its theoretical foundations and practical applications.

This article is organised into five sections. The second section provides an overview of the methodology employed in this study. The third section outlines the findings from the collected research, focusing specifically on the South Asian context. The fourth and fifth sections examine how various GHRM functions and theories have been explored in the literature, identifying and analysing the theoretical frameworks used by researchers to study GHRM in the region. The final section offers a discussion on the current state of GHRM as reflected in the literature, along with potential directions for future research in the field

## Methodology

The PRISMA methodology, a systematic and rigorous approach used to conduct literature reviews and synthesise evidence in research articles, has been employed in this review. The methodology involves a comprehensive search strategy to

identify relevant studies, followed by screening and selection of studies based on predetermined criteria. The data from the selected studies are then extracted and synthesised, and the quality of the studies is assessed to ensure validity and reliability.

The decision to use SCOPUS as the primary database was made to ensure consistency and methodological coherence. While other databases like Web of Science and Google Scholar offer equally valuable resources, SCOPUS is recognised for its rigorous peer-review standards and global academic credibility (Schotten et al., 2017). Its interdisciplinary coverage facilitates access to high-impact, up-to-date research (Falagas et al., 2008). Relying on a single resource ensures uniformity in quality, citation metrics and indexing standards, minimising any discrepancies that may arise from differing database criteria (Mongeon & Paul-Hus, 2016). This approach enhances the reliability and comparability of the sources used throughout the research. 331 articles from 2001 to 2023 were collected from the SCOPUS using the following keyword strings:

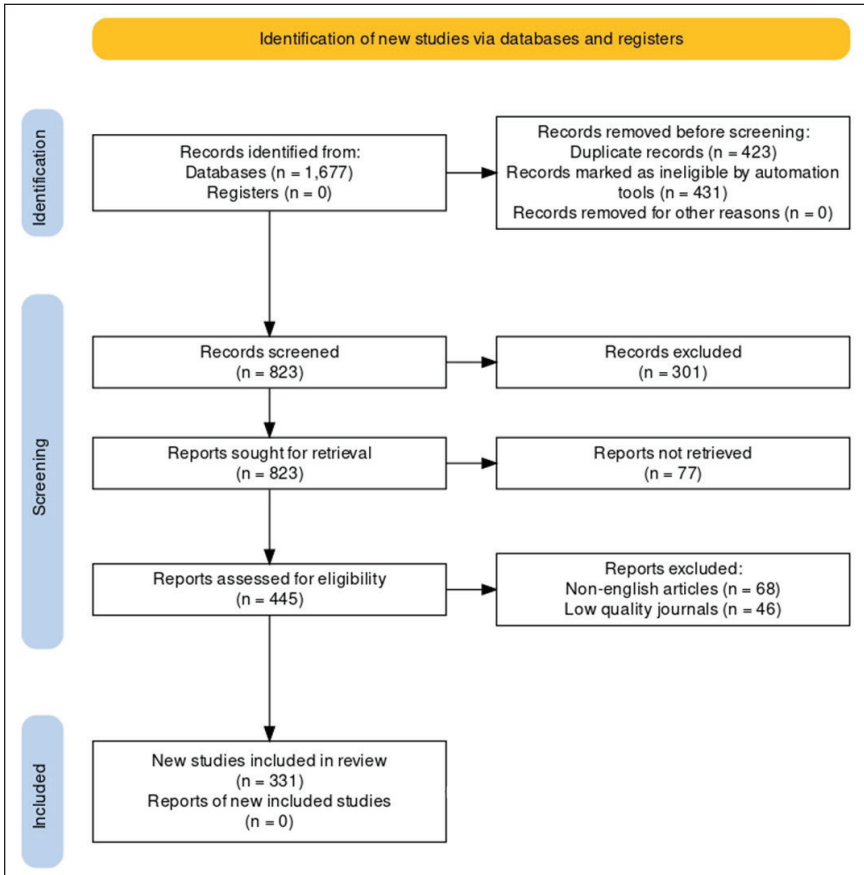
- TITLE-ABS-KEY ('Green' OR 'Sustainable' OR 'Circular economy') AND ('Human') AND ('Resource') AND ('Management').
- TITLE-ABS-KEY ('Green' OR 'Sustainable' OR 'Circular economy') AND ('HRM')
- TITLE-ABS-KEY ('Green') AND ('HRM').

Figure 2 indicates, in line with the PRISMA framework, the process of inclusion and exclusion of the studies from the collection of articles as returned using the aforementioned search strings.

After gathering the research articles, the biblioshiny plugin of the bibliometrix application was utilised to extract comprehensive data regarding various bibliometric parameters. The application provided a detailed analysis of the collected research, and the results are presented in Figure 3 that showcases the basic statistics of the data.

## Research in South Asia: Bibliometrics

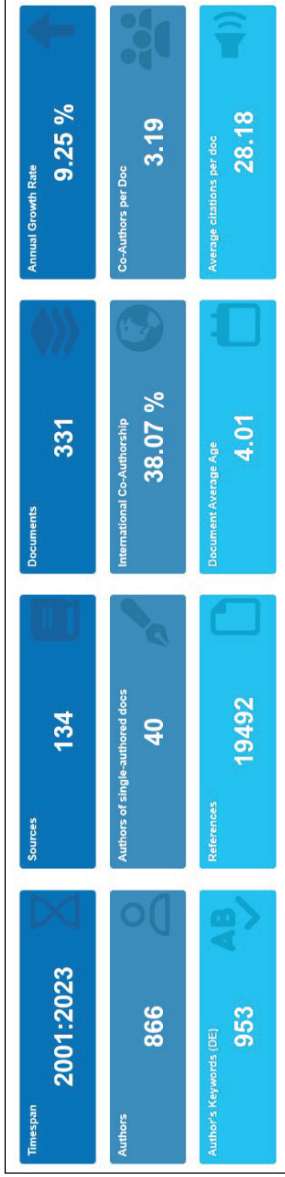
Out of the 331 collected documents, 69 were found to be research articles in the context of South Asia. Most of these articles are from India (36 documents), followed by Pakistan (26 documents) and Bangladesh (6 documents). The analysis, as illustrated in Figure 4, indicates that the majority of these research articles are empirical, relying on questionnaires to examine one or more sectors. The sectors that have been studied the most include hotel/tourism (Ahmed et al., 2021; Cabral & Jabbour, 2019), manufacturing (Hameed et al., 2020; Mishra, 2017) and automobile (Chaudhary, 2019b, 2020). Furthermore, several reviews have been published by researchers from the subcontinent, including Bahuguna et al. (2023) and Farrukh et al. (2022), but these reviewers have placed particular emphasis on India.



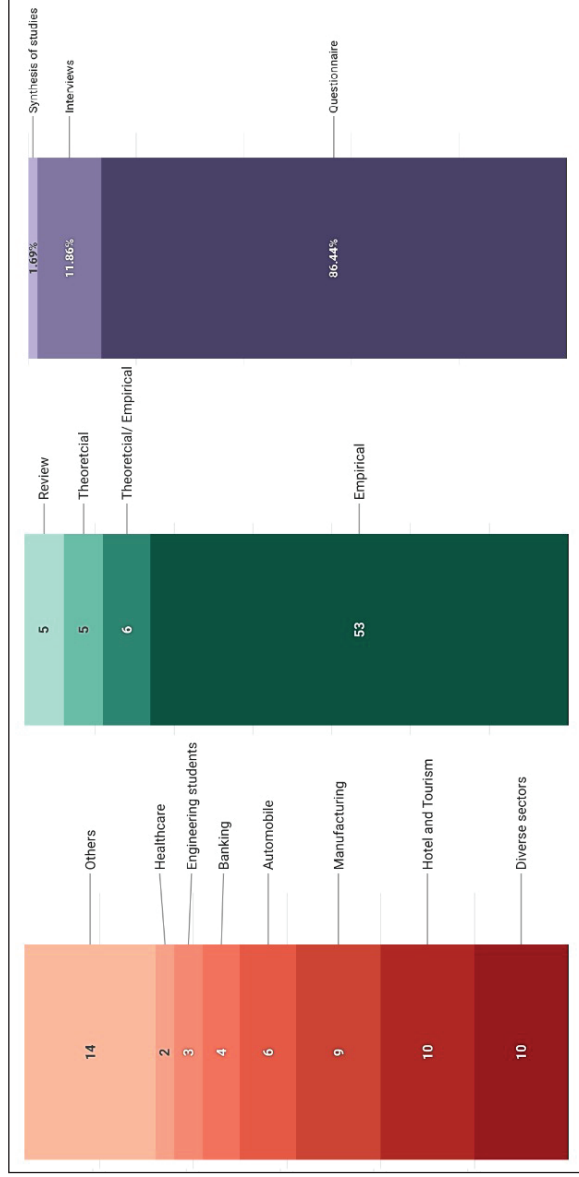
**Figure 2.** The Figure Represents How the Collected Articles Were Selected for This Article.

In the South Asian context, GHRM and CSR hold substantial significance, particularly in emerging economies such as Pakistan (Wen et al., 2022). An instance of this is research conducted by Abbas et al. (2022) that studied the moderating impact of gender, fundamentally showing that the GHRM policies encourage green behaviour and sustainability among employees in a developing country like Pakistan. The religio-ethical perspective has been explored by Islam, M. S. et al. (2022), wherein the effect of religious teaching on sustainable organisational practices is explored.

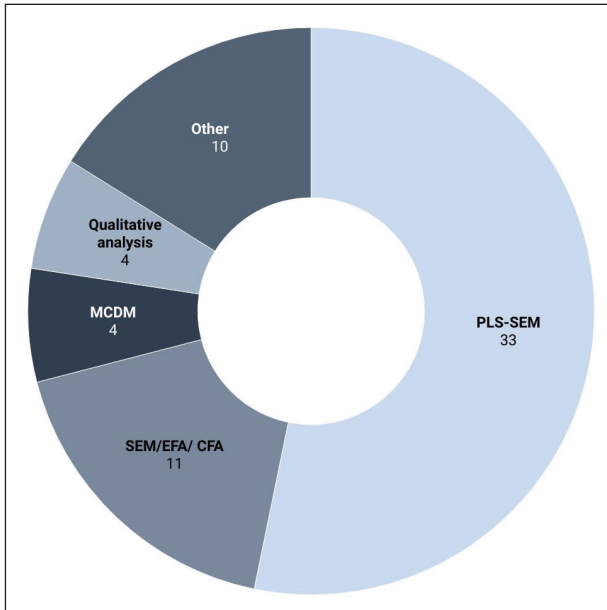
The findings indicate that the majority of researchers utilised questionnaires in their studies, while a subset also incorporated interviews. As shown in Figure 5, the bulk of the published research employs partial least squares structural equation modelling (PLS-SEM) as a tool for analysis, while exploratory and confirmatory factor analysis are used with SEM most notably in cases where they have been employed for instrument validation.



**Figure 3.** Basic Parameters of the Collected Research for This Study.



**Figure 4.** Characteristics of Collected Research on South Asia.

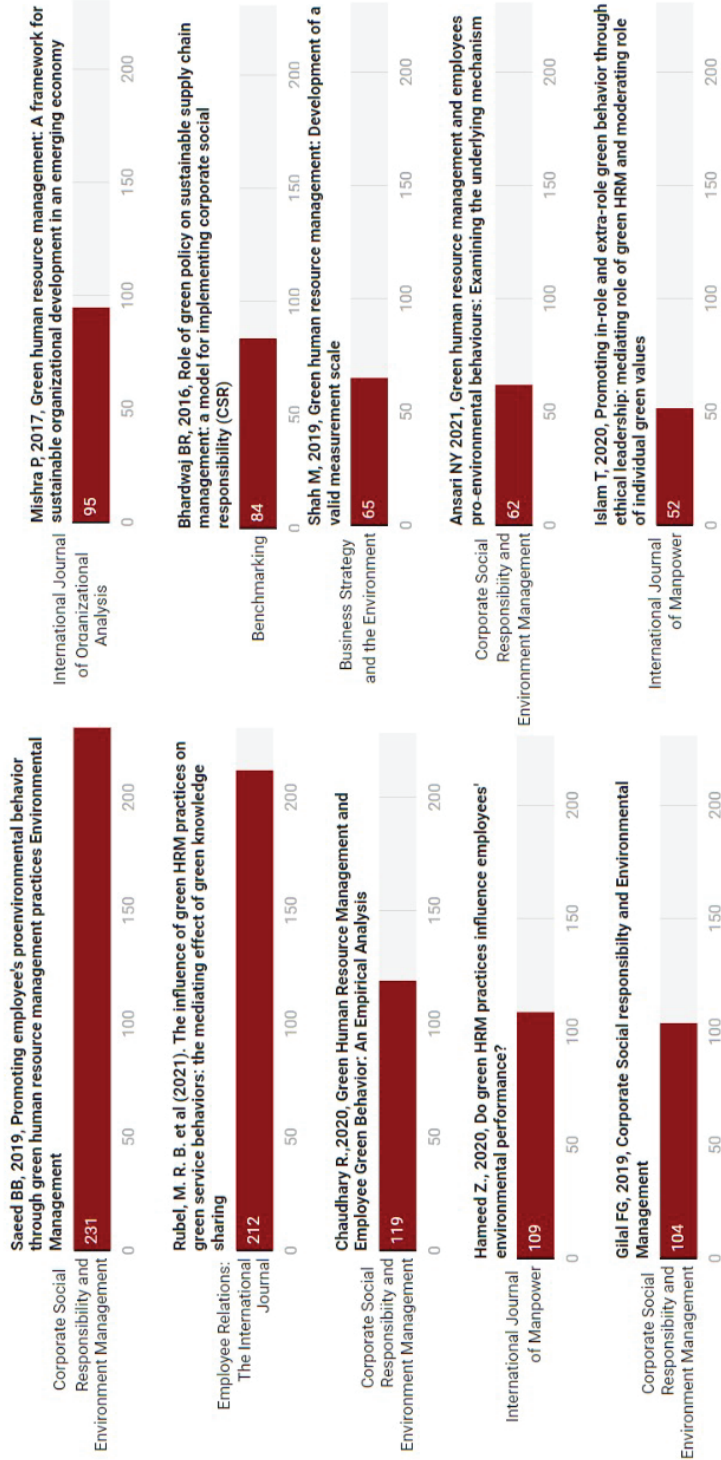


**Figure 5.** Statistical and Analytical Tools Employed in the Research.

A variety of measurement scales and instruments have been validated in the South Asian context. Specifically, validation has been conducted for the GHRM measurement scale (Shah, 2019), the internal green marketing scale (Qureshi & Mehraj, 2022), the instrument assessing Generation Y's perception of GHRM (Jain & D'lima, 2018) and the validation of the green organisational culture instrument (Aggarwal & Agarwala, 2021). Several articles have explored strategic decision-making in the context of organisational greening using various multi-criteria decision analysis (MCDM/A) methods, including fuzzy analytic network process (ANP) for greening the organisations (Malviya et al., 2018), decision-making trial and evaluation laboratory (DEMATEL) for environmental auditing in organisations (Gedam et al., 2021), and strategising human behaviour factors (Gedam et al., 2023) and Fuzzy analytic hierarchy process for determining environmental awareness in companies (Khatoon et al., 2022).

Figure 6 presents a list of the most significant articles published in South Asia based on their citation count until February 2023. The most cited article is by Saeed et al. (2019) with 231 citations, which examines the impact of GHRM practices on the pro-environmental behaviour of employees across various sectors in Pakistan. The study investigates the relationship between green recruitment and selection, green training (GT) and development, green performance management (GPM) and appraisal, green reward and compensation and green empowerment and pro-environmental behaviour. R. Chaudhary stands out as the most prominent author from India, with five published articles and the highest-cited work in the field (Chaudhary, 2020). Meanwhile, T. Islam is the most published author

## Most cited articles and their journal names



**Figure 6.** Most Cited Research Articles and Their Corresponding Journals of Publication.



from Pakistan, with four articles. Finally, the most significant publication from Bangladesh is by Rubel et al. (2021), which has been cited 212 times and provides insights into the context-specific challenges and opportunities for sustainable development in Bangladesh.

A comprehensive analysis of research conducted in South Asia reveals that it can be classified into three key dimensions: personal, organisational and theoretical aspects of GHRM. Figure 7 illustrates the frequency of the number of studies conducted in alignment with these dimensions, providing a clear overview of research distribution across the three categories. The personal dimension comprises studies that focus on GHRM practices, with notable contributions from several significant researchers like Saeed et al. (2019) and Hameed et al. (2020). Green leadership and green environmental behaviour have also been studied with great frequency, and notable studies that exemplify these parameters include studies by Ahmad and Umrani (2019), Islam, Hussain et al. (2021) and Ahmad et al. (2022). Furthermore, within the personal dimension, GHRM practices have been the primary focus, with notable studies conducted by Umrani et al. (2022) and Nisar et al. (2022). The emphasis on employee performance (EP) highlights the critical role that organisations play in promoting sustainable practices and reducing their carbon footprint. On the theoretical front, it is evident that the Supply-Value Fit theory has been studied the most. However, several other theoretical frameworks have been explored, contributing towards a better understanding of GHRM.

In addition to these, many other theoretical frameworks can be gleaned from the collected research, a detailed description of which is presented in the fifth section.

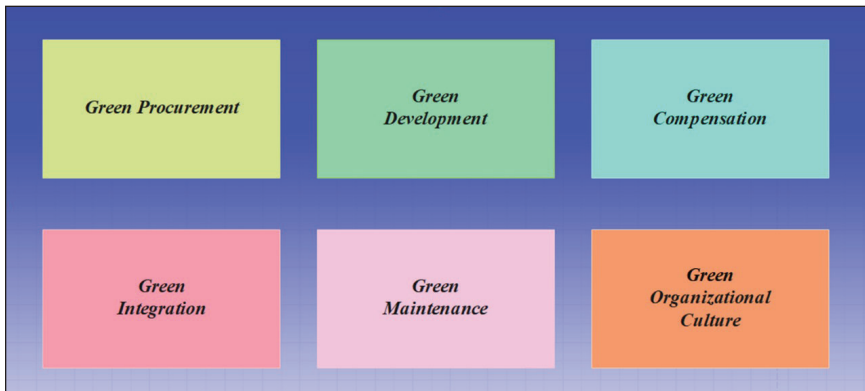
## **Operational Functions of GHRM: South Asia**

In the likeness of HRM, all the major operational functions of GHRM have been researched in the South Asian context; this section provides an overview of this work. GHRM encompasses several subheadings, as shown in Figure 8, including procurement, development, compensation, integration, organisational culture and maintenance. Procurement involves green job design and recruitment. Development covers GT, green human capital (GHC) and other related aspects. Compensation is managed through GPM and pay/reward systems. Integration includes green discipline management, work-life balance and other related dimensions. Maintenance is addressed through employee empowerment, health and safety management and more. Finally, organisational culture includes green culture, competitive advantage and leadership, all of which are important aspects of GHRM research.

### ***Green Procurement***

Green procurement refers to the process of integrating environmental considerations into the purchasing decisions of an organisation. This involves not only the





**Figure 8.** Operational Functions of GHRM.

procurement of environmentally friendly products but also the adoption of green job design and green recruitment strategies. Through green job design, organisations reshape job responsibilities to integrate tasks focused on environmental protection. A case study conducted by Bishnoi and Rai (2022) in India on the skill council for green jobs (SCGJ) in 47 enterprises concludes that 62% of the workforce in India being young presents a great opportunity for equipping them with green skills. The study also suggests that job design in the public sector may not be limited to formal arrangements but, more importantly, must include informal ones. Another policy article posits that green job design in India necessitates a collaborative approach involving governments, unions, employers, not-for-profit organisations and local institutions (Varghese et al., 2018). Working in Pakistan, Shah (2019) concluded that using green job design strategies, companies aim to include environmental protection responsibilities in the jobs. Green recruitment, on the other hand, involves hiring individuals who possess the knowledge, skills and behaviour related to environment management systems. Jain and D’lima (2018) explore green hiring while drawing up an instrument linking green organisational perception to hiring. R. Chaudhry has explored the topic of job pursuit intention among engineering students within the context of green job design (Chaudhary, 2018, 2019b). The researcher found a correlation between organisational prestige and job pursuit intention, and they highlighted that younger generations view sustainability as a core value and a significant factor in their career decision-making process.

### *Green Development*

Green development refers to the process of creating sustainable business practices that protect the environment and promote social responsibility. It is becoming increasingly important for companies to adopt a green development strategy to ensure long-term success and to stay competitive in the market. Two important aspects of green development are green training and development and GHC.

Saeed et al. (2019) defined green training and development as ‘a system of activities that motivate employees to learn environment protection skills and pay attention to environmental issues, which is a key in accomplishing environmental objectives’. Drawing upon the Ability, Motivation and Opportunity (AMO) theory and Social Exchange theory, Amrutha and Geetha (2021) conclude that the most effective strategy for raising employee awareness about environmental issues and encouraging environmentally friendly actions in the Indian context involves targeted communication and engagement initiatives. Deshpande and Srivastava (2022) link GT not only to the greening of employees’ work-life but also to their personal lives. Other studies in the South Asian context have pointed to different consequences of GT, including employee growth with gender as a parameter (Abbas et al., 2022), improvement of the perception of CSR (Srivastava & Shree, 2018) and improved environmental commitment of employees (Cabral & Jabbour, 2019).

**GHC** refers to the knowledge, skills and abilities that individuals possess related to environmentally sustainable practices and principles. In the likeness of human capital theory (HCT), green intellectual capital (GIC) is seen as most significant aspect of GHC in contemporary organisations for gaining competitive advantage (Astuti & Datrini, 2021). In a study on the hospitality sector in Pakistan, Munawar et al. (2022) concluded that innovative approaches could help hotels enhance their EP. Furthermore, GHC has been discovered to serve as a mediator between GHRM and environmental knowledge, leading to a positive feedback effect. Working within the ethico-religious sphere, Ali et al. (2022) assess the causality between GHC, green structural capital (GSC) and green relational capital (GRC) on GHRM. Additionally, these indicators are posited to construct employee social identity. Ghosh and Haque (2022), explore how employee green behaviour is contingent on GHC. They have further classified GIC along GHC, GSC and GRC. Given the Indian context of the study, authors identify a need to add a spiritual dimension to GIC, which is termed as green spiritual capital (GrSC). Working in the manufacturing sector in Pakistan, Mansoor et al. (2021) have also sought to link GHC with EP. Another study in Pakistan in the banking sector links GIC with green social identity (Ali et al., 2022).

### *Green Compensation*

Green compensation is a system of financial and non-financial rewards aimed at attracting, retaining and motivating employees to contribute towards the environmental goals of the organisation and includes green pay and reward and GPM.

#### *Green Pay and Reward*

Jamal et al. (2021) defined green pay and reward as ‘a system of financial and non-financial rewards that is aimed to achieve the goal of attracting, retaining and finally motivating employees who are best suited for contributing towards green goals of the organization’. In her study on the automobile sector in India, Chaudhary (2019a) states that compensation acts as a means to acknowledge

employees' efforts and motivate them to enhance their EP. This compensation may come in the form of cash rewards, bonuses and loan facilities, and can be made available for the purpose of buying environmentally friendly transportation. In their review, Sri Lankan researchers Arulrajah et al. (2015), suggest that this compensation does not necessarily have to be financial but that non-financial compensation plays an equally important role in GHRM. These include awards, prizes, green travel benefits and green travel benefits and recognition. In, their research focused on public enterprises in India, Mishra et al. (2014) reveal that the organisations surveyed are receptive to implementing informal policies such as incentivising employees who use bicycles or carpool for commuting, acknowledging employees for eco-friendly innovations by awarding them 'go green' badges, and employing other similar tactics.

#### *Green Performance Management*

Ansari et al. (2021) defined GPM as 'a system of evaluating activities of employees' performance in the process of environmental management'. Focusing on the automobile sector in India (Chaudhary, 2019b), describes that the aim of GPM is to motivate the employees to work towards achieving the organisations sustainability goals by aligning the organisations environment goals with the employees daily tasks. The article concludes that GPM significantly affects both task related and voluntary green behaviours among the employees. In a study on a manufacturing facility in Pakistan, Ansari et al. (2021), indicate that green commitment mediates the relationship between GHRM and personnel environmental behaviours.

#### *Green Integration*

Green integration is a concept that incorporates environmentally friendly practices into the workplace. Conceptually, this has been addressed under two sub-headings: Green Discipline Management (GDM) and Green Work-Life Balance (GWLB). Working in the South Asian context, Hosain and Rahman (2016) argue that discipline management may be used as means by the organisations to ensure that employees are working towards meeting the green objectives of the organisations. In their study on private firms in India, Arora and Kaul (2020) detail several disciplinary measures that are implemented for employees. These measures include the creation of guidelines for environmentally responsible behaviour, establishment of consequences for failing to meet environmental targets, implementation of a progressive disciplinary system and enforcement of penalties for violations of environmental regulations. Subramanian and Suresh (2022), reporting on the Indian SME's, assert that green separation has a strong influence on GDM. However, a study by Singh and Nath (2020), indicates that practicing GDM may have negative effect on the job commitment and satisfaction of the employees.

#### *Green Work-life Balance*

Organisations are increasingly recognising the importance of work-life balance and are implementing innovative ways to help employees achieve equilibrium

between their work and personal lives. However, green HRM policies are predominantly considerate of the work domain of employees while eschewing the personal domains of workers (Singh & Bhatnagar, 2015). A number of studies in South Asia have studied GWLB. Deshpande and Srivastava (2022), link GT to the emotional intelligence of employees. The study concludes that sustainable organisational performance may be achieved with appropriate training and GWLB. Similarly, Manoj et al. (2022) have found a positive relationship between Green Human Resource Practices (GHRMP) and GWLB in the automobile sector in India. Elsewhere, Bangwal et al. (2017) found GWLB has a mediating effect between GHRM practices and EP in the private sector in India. However, Datta (2015), researching the corporate sector in India, maintains that implementing GWLB initiatives can be challenging as employees may feel that their personal space is being invaded.

### *Green Maintenance*

Green maintenance is an important aspect of achieving sustainability in organisations. It involves the continuous monitoring, improvement and maintenance of green practices to ensure that they are effectively integrated into the organisation's operations (Siyambalapatiya et al., 2018). In the South Asian context, GM has been studied in relation to organisational citizenship behaviour towards the environment (OCBE), wherein the authors conclude that empowering employees to make decisions and take ownership of GHRMPs increases their commitment to maintaining them (Hameed et al., 2020). Similarly, Khatoon et al. (2021), studying how green employee empowerment (GEE) directly affects organisational employee commitment towards the environment (OECE) conclude that in the Indian context, GEE does not have any positive impacts on GHRM activities. Ahmed et al. (2021) suggest that not only do GHRM activities significantly affect the EP of the organisation but they also affect its proactive environmental management maturity. Researching the manufacturing sector in Bangladesh, Ashraful et al. (2021) found that GEE acts as a mediator between GHRM practices in an organisation and its EP. Green empowerment has also been addressed alternatively as employee branding (Bose & Gupta, 2017) and employee engagement (Mishra et al., 2014).

### *Green Organisational Culture*

Boiral (2009) defines organisation culture as 'comprising the underlying norms, values, and assumptions that define the right way to behave in an organization'. For any pro-environment approach undertaken by the organisations to be successful, its organisation culture and human resources play the most important role. The concept of green organisational culture has been extensively discussed in South Asia, where it is predominantly associated with EP. Numerous studies have investigated the relationship between green organisational culture and various industries, including hospitality and tourism (Ahmed et al., 2021; Umrani et al., 2022),

manufacturing (Rizvi & Garg, 2022) and public sector industries (Aggarwal & Agarwala, 2022). Elsewhere, Kumar et al. (2021), interpret green culture in terms of organisational support and infer that it significantly effects the decision-making and job satisfaction among the employees. Green culture under the rubric of AMO theory has also been linked to transformational leadership (Rizvi & Garg, 2021).

## **Understanding GHRM Through Various Theories**

Different theories related to GHRM have been put forward. Upon evaluating the gathered research articles, the following set of theoretical frameworks that have been employed in the South Asian context were identified:

- AMO theory
- Stakeholder theory
- Contingency theory
- Dynamic capabilities theory
- Human capability theory
- Human capital theory
- Organisational citizenship behaviours theory
- Resource-based view theory (RBV)
- Supply-values fit theory (SVFT)
- Social identity theory (SIT)
- Social exchange theory (SET)
- Theory of planned behaviour (TPB)

**The AMO** theory proposes that an organisation's performance is based on the ability, motivation and opportunities of employees, which are influenced by HRM practices (Singh et al., 2020). To enhance EP, organisations must attract high-performing candidates, provide effective performance management and rewards and offer opportunities for proactive problem-solving (Cheema & Javed, 2017). Researching the hotel sector in Pakistan, Iftikar et al. (2022) concluded that each element in the AMO framework contributes to pro-environmental behaviour. Similarly, Shoaib et al. (2021) extend AMO into explaining green behaviour among diary workers in Pakistan. Rizvi and Garg (2021) used green AMO with RBV theory in the oil and gas sector in India, concluding that the implementation of strategies that enhance employees' green AMO can encourage them to contribute to performance and provide them with opportunities to engage in environmentally friendly behaviour. Other contexts where AMO has been employed include studying pro-environmental behaviour in educational institutions (Akhtar et al., 2022), CSR in the textile sector (Cheema & Javed, 2017) and Indian public enterprises (Mishra et al., 2014).

**Contingency theory** suggests that a 'one-size-fits-all' approach to organising a company's strategy, including GHRM, does not exist. Lawrence and Lorsch (1967), proposed that the environment, including internal and external dimensions, is

critical in shaping an organisation's strategy, and that a single organisational model cannot yield optimal results. The application of contingency theory in South Asia is also evident in the collected research. Acknowledging contingency theory, Mehmood and Hanaysha (2022) study CSR and green innovation where multiple propositions have been tested such as setting firm transparency, public visibility and GIC as contingency variables., Elsewhere, Chatterjee and Chaudhuri (2022), working within the purview of contingency theory, have studied organisational sustainability in light of government regulations. Similarly, a study conducted at Comstat University Pakistan by Rafiq et al. (2016) interprets contingency theory through the lens of the best-fit approach, demonstrating its fundamental importance in an ethico-religious context.

**Dynamic capabilities theory** emphasises the importance of resource combinations in common business processes (Eisenhardt & Martin, 2000), which can lead to a competitive advantage by enabling new thinking techniques and combining data, technologies and expertise. In a study surveying 211 handicraft managers in India, Joshi and Dhar (2020) assert that the dynamic capabilities are shaped by a firm's unique managerial traits, routines and culture; they are difficult for competitors to imitate. Hypothesising green dynamic capabilities as a mediator between GT and green creativity, they conclude that 'dynamic capabilities are cultural, and their impacts can essentially be examined indirectly in employee's performance'. Implying the efficacy of green dynamic capabilities in anticipating environmental uncertainty, Bresciani et al. (2023) have studied manufacturing firms in Pakistan.

**HCT** proposes that the knowledge, skills and abilities (KSA) of employees can create value and be a core asset of firms, leading to sustainable competitive advantage (Subramaniam & Youndt, 2005). Unique to each firm, human capital creates valuable resources and capabilities that are difficult for other firms to duplicate (Lepak & Snell, 1999). Under the rubric of HCT, Munawar et al. (2022), studying the hospitality sector in Pakistan, assert that green innovation and environmental knowledge may be rendered using the KSA framework. HCT, in GHRM, finds greater expression in organisational level studies some of which include studying organisational commitment in Pakistan's dairy industry (Shoab et al., 2021) and green organisational culture in Pakistan's agri-inputs industry (Tahir & Javed, 2022).

**Organisational citizenship behaviours (OCB)** refer to voluntary and discretionary behaviours that go beyond job requirements and are not explicitly rewarded by the formal system, but which contribute to a more effective environmental management by organisations (Boiral, 2009). Using this framework, Chaudhary (2019b) explores the automobile sector in India and makes conclusions based on five different GHRMPs in prompting green behaviours, both in-role and extra-role, which eventually lead to organisational EP. Similarly, another study within OCB purview, undertaken in India in the manufacturing sector, studies how GHRMP perform in a developing economy (Mishra, 2017). Elsewhere, OCB has been used in studies to analyse EP in hospitality industry (Umrani et al., 2020) and Green Passion in FMCG firms (Mohammad et al., 2020).



Under the rubric of RBV and considering an organisation to be a collection of human, physical and organisational resources, S. Y. Malik et al. (2020) analyse 800 manufacturing firms in Pakistan. They conclude that the success of GHRM is contingent on two dimensions: the first being recruitment and reward, and the second being GIC. They further contend that resources may be tangible and intangible, and that human resources (intangible assets) are most important in the case of sustainability. Similarly, in a study on NGO's in Bangladesh, organisational strategic resources viewed through RBV have been linked to CSR performance (Masud et al., 2019). Moreover, RBV has been used with flow theory in seeking to understand green entrepreneurial behaviour among students in a Pakistani university (Hameed et al., 2021). Other contexts where the use of RBV has been used include a study of GHRMP and consequent employee engagement in garment industries in Pakistan (Aktar & Islam, 2019), green transformative leadership and green innovation in the Indian manufacturing sector (Singh et al., 2020), and green training and development in higher education in Pakistan (Abbas et al., 2022).

The SVFT proposes that GHRM practices function as organisational supply that employees value, which leads to the adoption of green behaviours. A fit scenario occurs when an organisation's resources match or exceed an individual's values, resulting in positive attitudes and actions. Gilal et al. (2019) employ the SVFT framework with OCBE for studying the EP of educational institutions in Pakistan. SVFT has been used by the researchers to model green values of the employees, which are then hypothesised to manifest as their environmental passion. Islam, Khan et al. (2021), studying MBA students, link ethical leadership and green values in educational institutions.

Explaining SIT, Tajfel and Turner (2004) assert that individuals aim to associate themselves with socially reputable groups to construct a favourable image (Chaudhary, 2019b). Given that SIT seeks to link the individual factors with the organisational factors, Ali et al. (2022), in the case of Islamic banks in Pakistan, examine the individual factors of GHRM (human, structural and relational) and their impact on organisational factors such as commitment, eco-friendly behaviour and EP. The exploration of social identity has been employed to examine how engineering students in India, projecting their identities in future, demonstrate their commitment to environmental sustainability by integrating green values into their job pursuit intentions (Chaudhary, 2018, 2019a). A similar study in the automobile sector uses SIT with AMO and person-organisation fit theory (Chaudhary, 2019b).

**Social exchange theory (SET)** is a significant criterion for understanding workplace behaviour (Cropanzano & Mitchell, 2005) and can strengthen the employee-employer relationship (Ahmad & Umrani, 2019). The theory suggests that employees seek benefits from their relationship with the employer and will be more involved if they perceive that the gains outweigh the drawbacks (Zhang & Liu, 2021). This benefits-disadvantages calculus has been studied in millennials working in SME's in Dhaka, where employees perceive green training and development as important returns (Islam, M. A. et al., 2022). Likewise, Amrutha and

Geetha (2021) demonstrate in their study on the Indian service sector how GT is viewed as a beneficial advancement for one's career. Other studies linking SET with GHRM include contexts like GHRMP in the hotel industry (Khan et al., 2022) and perceived organisational support and innovative environmental behaviour in the oil and gas sector (Bhatti et al., 2022).

Given that theory of planned behavior (TPB) bases itself on relationship between intention and behaviour (Yuriev et al. 2019), some of the South Asian studies that explored this relationship in the context of GHRM include green intention-behaviour gap across various sectors (Khalid et al., 2022), intentions for green practices in the IT industry (Akman & Mishra, 2014) and the moderating effect of religiosity on ethical behavioural intentions in Pakistani bank employees (Kashif et al., 2017). TPB is used to examine how green work climate perceptions influence supervisors' pro-environmental actions in the garment industry of Bangladesh (Rubel et al., 2021).

**Stakeholder theory** plays a crucial role in comprehending organisational change and achieving sustainability goals (Sodhi, 2015). To understand this concept, it is helpful to first understand what a stake is. A stake refers to an interest or share in an undertaking, which can range from a simple interest to a legal claim of ownership. A range of topics related to the stakeholder theory have been explored within the context of South Asia. Analysing manufacturing firms in India, Mishra (2017) uses stakeholder analysis and links four dimensions of organisational sustainability: GHRM, green supply chain management (GSCM), green competitive advantage and green CSR. Conceiving of communities, customers and contractors along with employees as stakeholders in a decentralised FMCG sector, Mandip (2012) concluded that emphasis on waste management recycling and delivering green products is fundamental to greening organisations.

## Discussion

Systematic procedures and explicit criteria were used to analyse the research articles published from 2001 to 2023. The relevant information on GHRM literature was extracted, highlighting its conceptualisation, implementation, determinants and outcomes in both organisational and individual contexts. This review contributes significantly to the existing literature in multiple ways. First, it adopts an objective approach to data collection, utilising reputable journals to ensure the quality and reliability of the reviewed data. Second, the review distinguishes itself by providing a unique categorisation of the literature that aligns with current research trends in the field of human resource management (HRM). Traditionally, research in this area has primarily focused on operational functions and theoretical frameworks, making this review's approach both innovative and valuable. Third, this review elucidates the theoretical frameworks that may be most suitable for researchers seeking to explore GHRM. By presenting an overview of applicable theoretical frameworks, this review provides valuable guidance to those embarking on research endeavours in this field.

As illustrated in Figure 3, there has been a notable surge in interest in GHRM since 2001, with a sharp increase in publications on the subject beginning in 2015 and continuing to the present. This rise in research activity may be attributed to various factors, such as the evolving understanding among organisations of the potential competitive advantages of environmental sustainability. Additionally, heightened attention to ecological issues from governments and non-governmental organisations has further spurred interest in this area of study. Likewise, this trend is also discernible in the context of South Asia, where there has been an escalating interest in GHRM in recent years. As organisations in the region increasingly recognise the significance of environmental sustainability in enhancing their competitiveness, there has been a corresponding uptick in research activity on GHRM.

In relation to research methodologies and approaches, the literature demonstrates a diverse array of techniques being employed. From the existing body of literature, it appears that commonly used research methods include quantitative methods, empirical studies, theoretical studies and surveys. However, there is a noticeable gap in the use of qualitative methods, mixed-methods and case study/interview techniques, which should be considered in future research endeavours. While there is a growing trend among scholars to explore GHRM through a qualitative lens, there remains ample opportunity to expand the scope of research through the incorporation of diverse research methodologies.

While some studies, such as Anjum et al. (2022) and Rao (2013) have examined specific cultural and social aspects in South Asia, they predominantly focus on religion, leaving a significant gap in the literature regarding sociocultural issues like gender, diversity and industrial relations. Research indicates that these factors are crucial for effective GHRM practices. For instance, gender diversity has been shown to enhance organisational performance and sustainability outcomes (Jain, 2022). Additionally, studies suggest that organisations with diverse workforces are better positioned to innovate and adapt to environmental challenges, as varied perspectives contribute to more comprehensive problem-solving (Cooke et al., 2020). Furthermore, sociocultural factors such as local customs, values and power dynamics can significantly influence employee engagement with sustainability initiatives. In South Asian contexts, where collectivist values often prevail, fostering a culture of sustainability may require tailored approaches that resonate with community norms and practices (Hofstede, 2011). This contrasts sharply with research from Western contexts, where individualism may drive GHRM strategies and employee motivation. Moreover, the intersection of gender and industrial relations in South Asia highlights additional complexities. For example, women often occupy lower positions within organisations, and their voices may be marginalised in sustainability discussions. Addressing these inequalities not only aligns with social justice but can also enhance organisational commitment to sustainability efforts (Chatterjee, 2022). The limited research on public institutions in South Asia, which employ a substantial workforce, underscores the urgent need to explore how these sociocultural factors can inform GHRM practices in a region-specific context. Such investigations can lead to the

development of more inclusive and effective GHRM strategies that resonate with the unique sociocultural landscape of South Asia, ultimately fostering sustainable organisational outcomes.

The institutional context in South Asia may present challenges for the adoption and implementation of GHRM practices. These challenges include inadequate regulatory frameworks that hinder effective sustainability initiatives (Cooke et al., 2020) and pervasive corruption that undermines accountability and transparency in organisations (Venard et al., 2023). Additionally, cultural barriers, such as resistance to change and a lack of awareness about the benefits of sustainability, further complicate the integration of GHRM practices (Rao, 2013). Limited access to training and resources for organisations, especially in the informal sector, restricts the capability to implement sustainable practices effectively (Sharma & Kumar, 2019). Moreover, socio-economic factors, such as poverty and high unemployment rates, often prioritise immediate economic gains over long-term sustainability goals, impeding the commitment to GHRM (Chatterjee, 2022). Lastly, the lack of collaboration between public and private sectors can result in fragmented approaches to sustainability, diminishing the overall impact of GHRM initiatives (Anjum et al., 2022).

To overcome these challenges, organisations should take a comprehensive and integrated approach that aligns with their sustainability goals. Collaboration with external stakeholders such as government agencies, non-governmental organisations and industry associations can also facilitate the adoption and implementation of GHRM practices. Further research is needed to better understand the institutional and cultural factors that influence the adoption and implementation of GHRM practices in emerging economies, particularly in South Asia.

## Limitations and Future Research

The present study has certain limitations that should be acknowledged. First, the organisational policies pertaining to GHRM were found to be a major limitation, as they restricted the scope of data collection and analysis. Second, the limited number of studies that relate to public policy and GHRM were not considered in this study, which may have resulted in a narrow perspective of the topic. Additionally, the study did not consider the impact of the COVID-19 pandemic, which led to the increased importance of remote work. This limitation is particularly significant in the South Asian context, where little research has been conducted on this subject. Furthermore, it should be noted that many research articles that may have been relevant were not included in this study as they were not indexed in SCOPUS. This is particularly relevant as grey literature, which is excluded from these databases, may contain valuable information that could have improved the study's findings. Despite these limitations, the present study provides valuable insights into the field of GHRM, and the results obtained may be used to inform future research in this area.

Drawing from our study, the researcher proposes several areas for future research in the context of Green HRM in South Asia. First, there is a pressing need to assess the impact of green recruitment, green hiring and green training and development processes in achieving GHRM. The formation of cohesive groups with shared values and vision may facilitate the adoption of environmentally friendly practices. Second, the development of strategies for promoting and incentivising GHRM adoption requires input from government and industry leaders. Recognising the significance of individual goals and personal moral norms, such strategies could help drive momentum towards GHRM adoption and practices. Third, research is needed to identify relevant training and development areas for GHRM, informed by successful models and involving collaboration between government representatives, industry leaders and researchers. Fourth, a thorough investigation is necessary to pinpoint the drivers and motivators for GHRM adoption across various business sectors in the Indian context. Finally, it is critical to identify the factors that can generate momentum for green recruitment, green hiring, and green training and development processes. Finally, incorporating research on GHRM within broader frameworks such as GSCM, corporate sustainability and the circular economy has the potential to yield significant value and enhance the overall efficacy of the application of GHRMP. In conclusion, this research suggests that the promotion and implementation of GHRM practices could significantly benefit all stakeholders in South Asia and that further exploration of the identified areas can help bridge the gap between GHRM practices and research.

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