Green Human Resource Management: Past, Present and Future Research Agenda

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Abstract
This research study presents a narrative literature review on green human resource management as a measure of organizational and environmental sustainability, its related organizational dynamics, and strategic orientation. The motivation for this study was to align these aspects as this was a missing link in the literature of green HRM. Secondary data for this review-based study were primarily selected from Web of Science, Science Direct (Elsevier), Emerald, JSTOR, SpringerLink, Taylor & Francis Journals and Willey-Black Well Journals. Using the approach of “Preferred Review of Items for Systematic Review and Meta-analysis (PRISMA) framework”, 141 research studies published on the topic of green HRM by established publishers’ databases and in Google scholar having relevance of topic and abstract were analyzed in this study. The latest conceptualization of GHRM and its conceptual boundaries have been discussed as well. The study found that GHRM is actually an extension of the traditional HRM with a strategic and ecological orientation. Multiple organizational dynamics are associated with green human resource management which have been discussed in the light of available literature, theories and methodological trends in this domain of HRM. Finally, a useful discussion has been made and future research directions have been identified along with empirically testable propositions.

Keywords: Green HRM, sustainable HRM, sustainability, environmental sustainability, narrative literature review
JEL Code: M12, M19

Introduction
One of the cutting-edge areas of current human resource management (HRM) practices that have the potential to give a competitive advantage to business is green human resource management (GHRM). Green business techniques enabled companies to achieve better financial outcomes. The workplace gets improved as a result, giving employees more flexibility and efficiency to work for the greater goal of sustainability along with achievement of organizational objectives. Methods of green human resource management also aid businesses in meeting environmental requirements.

Employees follow such procedures and support the organization's overarching objective of sustainable development (Golicic & Smith, 2013; Darvishmotevali et al.,

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2022). Empirical evidence in the literature on human resource management explained that pro-environmental initiatives positively impact branding efforts, public image, improved business opportunity, and strategic advantage for such organizations (Christmann, 2000; Khanna & Anton, 2002; Shrivastava, 1995). A sustainable workplace is more productive and more adaptable for employees (Cabrales, 2019). There has been a wealth of research on green marketing and green accounting in the 1990s and afterward as well but there are still the literature gaps existing concerning green HRM which can be addressed through narrative reviews for explaining its linkages with different other facets of management such with the strategic HRM and corporate social responsibility. There is a growing awareness regarding corporate social responsibility as a strategic tool for organizations. Similarly, the concept of sustainable organization is a broader concept under which green human resource management has evolved (Grenville et al., 2014; Marcus & Fremeth, 2009) and then over time, green human resource management (GHRM) is not only acknowledged as a separate area of research but also as an important strategic extension of traditional human resource management with a greater research emphasis in the last one decade as such business practices are also in line with the 17 sustainable development goals of United Nations Organization (Renwick et al 2015; Shahzad, 2020; Zoogah, 2011).

Green business practices are very helpful for business in the modern age of the knowledge economy. This makes the workplace more productive and more adaptable for the employees. Human resource management is an important function for any organization that significantly impacts the performance of the organization not only at the functional level but also at the corporate level. Green human resource management contributes to the better environmental performance of organizations as sustainability is seen as a key performance indicator of organizations in many developed and developing countries of the world. More green practices need to be included under green human resource management for better performance of the organizations in line with societal and stakeholders’ expectations (Rani & Mishra, 2014). According to Govindarajulu and Daily (2004), green HRM is one of the important functions of HRM, and the adoption of green practices inside the organization can be encouraged through proper human resource management. Employees adopt those practices and contribute to the greater goal of the organization for sustainable development. Other aspects such as initiatives for the environment, guidance for implementation of green practices, etc., all come under GHRM.

This current study is review-based where using the methodology of Preferred Review of Items for Systematic Review and Meta-Analysis (PRISMA) framework for a narrative literature review on green HRM. There was a need to establish a clear link between strategic HRM and green HRM as it was a missing link in the existing literature on HRM. This study has filled that literature gap along with the compilation of a comprehensive literature on green HRM. Moreover, the conceptualization of GHRM and establishment of its boundaries were needed as it was also a missing link.
in the previous literature. This study has also filled that literature gap (Tanova et al., 2022). As narrative literature reviews also follow a methodology and require the use of research question. Therefore, the research question formulated for this research study was “what is the conceptualization of GHRM and its conceptual boundaries and what is the association of strategic HRM with green HRM”? Finally, a useful discussion has been made and future research directions have been provided in this study.

### 1.1 Conceptualization and Boundaries of Green Human Resource Management (GHRM)

A careful analysis of the past developments regarding Green Human Resource Management (GHRM) revealed that this concept evolved from the spur of incorporating sustainability into the organizations’ different internal functions and operational decisions (Grenville, Buckle, Hoskins & George, 2014). So, the research on Green Human Resource Management (GHRM) is in line with the business sustainability-related research that was especially dominant in the first two decades of the 21st century. To a fair extent, the concept of environmental sustainability for businesses was introduced first through the Brundtland Report of the United Nations which emphasized the need for such a development that should not compromise the needs of future generations (World Commission on Environment and Development, 1987). Concerning sustainable development, the natural environment is relevant to society and is impacted by organizational activities. Managers are the controllers and operators of the organizations and human resource management is the key function of any organization. Any adaptation by the human resource managers impacts most of the other organizational activities and departments. Due to increasing environmental pollution in the 1960s and 1970s, there was increasing regulatory activity and awareness to curtail the industrial and organizational actions which were damaging the assets of the natural environment like the ozone layer. The later debate of ecologists on the subject of global warming and its harmful effects was also linked with the industrial effects along with the many other aspects of modern-day human life. Alfred and Adam (2009) stated that green management matters much more in the age of globalization.

Wehrmeyer (1996) gave an early indication of GHRM existence by explaining that the employees are the key factor for an organization to adopt environment-friendly policies. Teixeira, Jabbour, and Jabbour, (2012) stated that it was realized over time that there were not just the technical national level aspects but the micro human level organizational effects which are necessary for environmentally friendly human resource management practices. GHRM emphasizes linking green emphasis in different HRM functions. Different researchers highlighted the linkage of GHRM with different functions of human resource management. For example, Dutta (2012) explained that GHRM is an impressive way of enhancing an organization’s
environmental performance. GHRM practices help organizations in developing “green employees” who acknowledge organizations’ sustainable activities with a particular focus on green HRM functions including green training and development, green compensation, green recruiting and hiring, green performance management, green involvement, and improving the organization’s human capital. Arulrajah et al. (2016) explained that GHRM comprises policies, practices, rules, and techniques which are performed in organizations to increase the positive effects on the environment and eliminate the negative organizational effects of organizational actions on the environment.

The author of this study defined “GHRM as a strategic tool of corporate social responsibility for the organizations where the HRM practices are the same as the traditional HRM including recruitment and selection, training and development, performance management, employee involvement, compensation management, etc. But in GHRM, an additional element of green emphasis in the traditional HRM practices exists for continuous improvement of the external environment through organizations’ routine internal HRM functions. However, GHRM is a separate function from other green functions of the organization such as green marketing, green supply chain management, green accounting, green building & architecture, etc. This established its boundaries from other allied organizational functions related to sustainability”.

2. Methodology of the Review Process

Systematic review papers can be of several types, namely – Structured reviews focusing on widely used methods, theories and constructs (Rosado-Serrano, Paul & Dikova, 2018; Canabal & White, 2008, Paul & Singh, 2017; Kahiya, 2018), Framework based (Paul & Benito, 2018), Hybrid- Narrative with a framework for setting future research agenda (Paul, Parthasarathy & Gupta, 2017; Kumar, Paul & Unnithan, 2019; Dabic et al., 2020), theory-based review (Gilal et al., 2018; Paul & Rosad-Serrano, 2019), a meta-analysis (Knoll & Matthes, 2017), bibliometric review (Randhawa et al., 2016), Review aiming for model/framework development (Paul & Mas, 2019; Paul, 2019)”.

Following the purpose of this research, the researcher adopted the method of structured review focusing on widely used methods, theories and constructs on the concept of green human resource management and its strategic orientation towards CSR (Rosado-Serrano, Paul & Dikova, 2018; Canabal & White, 2008, Paul & Singh, 2017; Kahiya, 2018). Because the concept of green human resource management (GHRM) is relatively nascent in management research and still it is an emerging strategic field of interest for both practitioners and academia; there is an urgent need to organize the available body of knowledge on the subject of green HRM to further proceed the scholarship on green HRM. One of the key advantages of review-based
studies is that future researchers find it easier to further proceed with the research on a concept through their empirical research contributions. This method of a narrative literature review is a commonly used method of research in business and management (e.g., Macpherson & Holt, 2007; Deng, 2012).

2.1 Selection of databases
From reliable publisher databases like Science Direct (Elsevier), Emerald, JSTOR, Springer Link, Taylor & Francis, and Willey-Black Well, as well as from Google Scholar, only peer-reviewed English-language papers were picked. The most frequently used search sources for academic publishing in the business and management disciplines are these publishers, who have been used in earlier systematic analyses (e.g., Tian et al., 2018; Ren et al., 2018).

2.2 Article Selection
Several keywords were used by researchers to locate GHRM-related literature. When conducting a systematic literature review and having to quickly organize a large amount of literature, a strategy like "searching keywords in the title" is quite helpful (Pittaway et al. 2004). The topic and breadth of the research should be taken into consideration when choosing the keywords (Tranfield et al., 2003). The terms "green HRM," "sustainable HRM," "strategic HRM," "functions of green HRM," "HRM and environmental sustainability," "HRM and corporate social responsibility," and "HRM and green work practices" are among those used. Peer review, the topic's applicability, and the abstract's quality all played a role in the selection of the final 141 research publications. Later, a thorough comprehension of the entirety of these studies' texts enabled us to include the key points of the work in this review. Figure 2

2.3 Article Classification
Based on the shortlisting criteria, 141 articles were ultimately selected. 42 articles were shortlisted for detailed examination for all parts of the study and a year-by-year fact sheet was created in Microsoft Excel. The papers were further chosen based on relevancy after Macpherson and Holt (2007) (see Exhibit 1). Furthermore, because it was acceptable for the scope of a review study, our approach for a narrative literature review was pertinent. Some of the articles weren't included in the article shortlisting process. For instance, we disregarded research that was on green work practices or involvement but had nothing to do with business organizations or GHRM (e.g., Thorpe et al., 2005). Then, 29 articles were judged to be entirely pertinent to the strategic direction with respect to green HRM and they were identified separately.
2.4 PRISMA Framework for Systematic Literature Review

An international team of academics created the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework in 2009 as a set of recommendations for reporting systematic reviews and meta-analyses. To guarantee that the methodology and findings of these studies are communicated clearly and transparently, it offers a standardized style for systematic reviews and meta-analyses (Moher et al., & The PRISMA Group, 2009).

In total, 135 studies and 6 publications on GHRM have been referenced in previously published systematic literature reviews and meta-analyses. For this systematic literature analysis, the initial shortlist of 270 records from secondary data sources gradually shrank to 141 records. Five of the original 270 records were eliminated due to record duplication, and one record was eliminated for various reasons, primarily due to its quality. 23 records were eliminated after additional review. From the new sources, just one report was kept because it was relevant and cited. In addition to the various secondary data sources that have already been cited in the prior systematic literature reviews, 76 new studies and one new report were also cited. According to the PRISMA methodology, 141 studies were finally chosen for citation in this systematic literature review.
3. Literature Review

In a systematic literature review on sustainable HRM, Santana and Lopez-Cabrales (2019) highlighted leadership, HRM practices, and innovation as the key factors that help in achieving the greater agenda of environmental sustainability. The term sustainable HRM which is used in contemporary literature, explains the overall concern for addressing environmental issues through the broader concern for the external environment; while GHRM deals with the specific internal organizational practices of HRM that can be used for addressing environmental concerns through HRM practices. GHRM practices like green training etc. can help to attain the goal of
environmental sustainability (Manzoor et al., 2019). Santana & Lopez- Cabrales (2019) conducted a systematic literature review on sustainable HRM portraying the emerging themes from past relevant literature like leadership, HRM practices, and innovation, etc., that help in achieving the greater agenda of environmental sustainability by the organizations. Businesses must be both competitive and environmentally conscious (Singh, 2018). Consequently, businesses are implementing eco-friendly practices and regulations to obtain a competitive advantage (Tanova et al., 2022). When servant leadership behavior is demonstrated, firms may more successfully instill GHRM practices, according to research by Darvishmotevali et al. (2022) further emphasized the need for a CSR perspective for internal organizational measures such as GHRM. The use of GHRM is a source of green competitive advantage for organizations as it formulates the image of perceived corporate social responsibility for the stakeholders (Muisyo et al., 2022). GHRM positively impacts the behavior of stakeholders who use such GHRM practices such as the employees and those external stakeholders who interact with the organization through the employees (Ababneh, 2021; Oja et al., 2022).

a. Strategic use of Green HRM

Jackson et al. (2014) emphasized the strategic importance of GHRM. Yong and Yusoff (2016) conducted a study in Malaysian manufacturing and services industries to explore the effect of strategic HRM competencies on GHRM. Findings indicated that those managers who had the competency of being strategic positioners and also those who changed champions had a positive significant relationship with the GHRM practices and initiatives. There is extant literature on the linkage of GHRM and strategic HRM initiatives. However, it was indicated that there is a gap for further research to link strategic HR competencies with each of GHRM practices. However, such studies in the past have shown that strategists and change agents in organizations tend to new trends and practices like GHRM. Also, such evidence in the past has inspired us to look at the GHRM practices from a strategic perspective as organizations have been trying to impress multiple stakeholders, regulators, customers, and society at large by portraying their efforts related to sustainability through strategic measures (e.g., Dubois & Dubois 2012; Jabbour, 2011; Wagner, 2012). GHRM as a concept has a linkage with traditional HRM practices along with the concern for environmental sustainability primarily as a policy measure to address regulators and stakeholders’ concerns (Jose Chiappetta Jabbour, 2011; Ahmad 2015); hence, the scope for linking GHRM with strategic HRM also exists. This study has attempted to address this gap as well through the identification of available GHRM studies having strategic orientation as it was one of the objectives of this article.

Carmona-Moreno, Cespedes-Lorente, and Martinez-del-Rio (2012) conducted an empirical study for testing the moderating effect of environmental HRM on the
relationship between the firms’ environmental practices and strategic/competitive advantage of the firms, particularly regarding cost and differentiation. Empirical findings of this study had shown that firms that adopted the practices of environmental HRM can benefit from cost and differentiation especially if those firms also adopted the relevant technologies which are environmentally friendly and helpful for pollution control. Organizations having environmental sustainability-related experience and practices can take advantage of better strategic management through the strategies of environmental sustainability (Osland & Osland 2007; Wilkinson et al., 2001).

Hart (1995) proposed a Natural Resource Based View (NRBV) which emphasized that organizations can gain sustainable competitiveness through the use of rare and non-substitutable strategic competencies like pollution control, environmental management, and sustainable development. Such a view was unique and later on contemporary strategic and practitioners’ bodies, regulators, and standardization bodies such as ISO (e.g., its certification of ISO 14001) started playing a relevant role in promoting environmental sustainability. Employees tend to behave constructively in those organizations which exercise corporate social responsibility (Riordan et al., 1997). Boxall (2018) while analyzing the last thirty years’ research in the field of strategic HRM stated that modern-day research should focus on issues beyond researchers’ interest and rather societal debate on critical issues needs to be addressed in the research of strategic human resource management.

Sustainable competitive and strategic advantage is required by organizations in the modern era’s competitive market. Policies and practices of HRM can impact the sustainable development of a business and its overall strategy (Dubois & Dubois 2012). Hart and Sharma (2004) emphasized the need for green technologies and the role of strategic HRM in recruiting, hiring, and training competitive human resources to adopt the green measures of organizations and become a source of competitive advantage. Ahmad (2015) was of the view that GHRM can be used by organizations as a strategic initiative. Linking reward and compensation with GHRM practices can help in achieving GHRM-related goals. Song and Yu (2017) found that environmental sustainability is a challenge for modern organizations and green innovation by the organizations can prove to be a competitive advantage. Manzoor, Wei, Bányai, Nurunnabi, and Subhan (2019) explained that job performance gets impacted by sustainable HRM practices with the moderating role of training.

A review of the previous literature shows that environmental sustainability is a concept that can be defined as the output of sustainable development. In the world of the 21st century, sustainable development is the focus of attention, especially for large organizations. Sustainability depends on sustainable development which is one of the
goals from the United Nations Organization’s (UNO) millennium development goals. Literature has already established the relationship between sustainability and green HRM (e.g., Yong, Yusliza, Ramayah & Fawehinmi, 2019). GHRM is the term that emerged from the past literature through the concept of environmental sustainability and corporate social responsibility.

Dumont, Shen, and Deng (2016) explained that the practices of GHRM have the potential to affect the social and psychological aspects which in turn affect the green behavior of the employees (Palle et al., 2014; Zibarras & Coan 2015). This research shows that just like the traditional HRM practices, cognition and psychological aspects related to the employees need further research by GHRM scholars (Dumont, Shen & Deng 2016). This is one such interesting literature gap that opens up the boundaries for researchers across the discipline of psychology, traditional HRM practices, and GHRM practices. Furthermore, being authors of the current study, it is our assessment that measures to adopt green behavior in the organization can be a potential source of competitive and long-term strategic advantage provided the top management’s skill to properly assess employees’ attitude for change is existing (Shrivastava, 2016). The role of traditional change management tactics and Human Resource Development (HRD) seems established here.

The concept of GHRM has not only merged the concept of HRM with environmental sustainability but it has also added a new strategic dimension to HRM. There is no doubt that human resources perform different organizational functions. The organization is nothing on its own only with human intent. If employees are provided with skills and abilities to do well for the external environment along with the organizational goals, then they would be a source of strategic advantage from multiple perspectives (Jabbour & de Sousa Jabbour 2016). GHRM requires the will, ability, and motivation of the employees for its proper execution (Jackson et al., 2011; Renwick et al., 2013). Seth, Shrivastava, and Shrivastava (2016) studied the cement industry in India, which is a typical polluting industry, especially in the sub-continent. A green manufacturing framework was proposed by the authors by linking HR practices, top management’s role, organizational culture, green supply chain management, etc. Hence, it is not only about the ability and motivation of employees, but the role of top management and organizational culture is also crucial for having GHRM as a strategic advantage.

Mebratu (1998) explained that environmental sustainability is an idea that emphasizes living in peace, development, and harmony with the natural environment. Barney and Wright (1998) conducted a study in the USA that explained that organizations need to bring such systems which have the potential for the employees to unleash their talent
and abilities. This study linked to value, rareness, imitability, and organization (VRIO) framework with effective efforts of sustainable competitive advantage. From a strategic point of view, organizations need to think that how the organizations can inculcate a favorable attitude in the employees towards environmental sustainability-related practices. HRM is an important organizational function in this regard. Such relevant HRM practices like employees’ hiring, rewards, promotions, involvement, training, and development, etc. can be linked with the adoption of sustainable practices (Borges & Michalisin, 2009; Chan, 2005; Hart & Sharma 2004). Figure 3

Figure 3: Major Findings of Past Research for Strategic Orientation of Green HRM

<table>
<thead>
<tr>
<th>Research on Strategic Use of GHRM</th>
<th>Major Findings</th>
</tr>
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<tbody>
<tr>
<td>Jackson et al., 2014; Yong &amp; Yusoff, 2016; Carmona-Moreno, Cespedes-Lorente &amp; Martinez-del-Rio, 2012; Osland &amp; Osland, 2007; Wilkinson et al., 2001; Tanova et al., 2022; Darvishmotavali et al., 2022</td>
<td>Strategic position with GHRM is advantageous for the organization’s CSR image.</td>
</tr>
<tr>
<td>Hart 1995; Riordan et al., 1997; Boxall 2018; Dubois &amp; Dubois, 2012; Hart &amp; Sharma 2004; Ahmad, 2015; Song &amp; Yu, 2017; Tanova et al., 2022; Muisyo et al., 2022; Alabuth, 2021</td>
<td>Addressing social challenges related to sustainability can help as a source of competitive advantage.</td>
</tr>
<tr>
<td>Borges &amp; Michalisin, 2009; Chan, 2005; Hart &amp; Sharma, 2004; Dumont, Shen, &amp; Dong, 2016; Oja et al., 2022</td>
<td>Applying practices of GHRM can positively change the attitude and behavior of the employees.</td>
</tr>
<tr>
<td>Jabbour &amp; de Sousa Jabbour, 2016; Shuhrad, 2020; Jackson et al., 2011; Renwick et al., 2013; Seth et al., 2016; Muisyo et al., 2022; Hameed, 2020</td>
<td>GHRM can differentiate a business/industry from competitors with a unique social perspective along with business motive of CSR.</td>
</tr>
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</table>

b. Organizational Dynamics of Green HRM

This is proved that concerning strategic orientation in the workplace, GHRM has established importance in the past literature. The real impetus for the research of GHRM came in the second half of the first decade of the 21st century when businesses’ need for corporate social responsibility was in high demand within the management literature and practice. Harris and Crane (2002) stated that there is extant literature on the organizational culture of sustainability and CSR that potentially supports or creates a hindrance to the greening of organizational activities. Although past researchers suggested that such a relationship is possible between positive organizational cultures for the greening of organization. But past work provided empirical evidence only through qualitative study that such a relationship does exist.
The available literature on green HRM has examined this concept from different angles with the help of empirical studies. Green HRM and environment (Rangarajan & Rahm, 2011; Zibarras & Coan, 2015; O’Donohue & Torugsa, 2015) stakeholder approach towards green HRM (Guerci, Longoni, & Luzzini, 2016), analyzing resistance to change concerning green HRM (Nejati et al., 2017), corporate social responsibility and green HRM (Jose Chiappetta Jabbour, 2011; Wagner, 2012) role of strategic HR competencies and green HRM (Yong & Mohd-Yusoff, 2016), HR factors that may influence green HRM (Yusliza, Othman & Jabbour, 2017), green supply chain management concerning green HRM (SCM) (Longoni, Luzzini & Guerci, 2016; Nejati et al., 2017) green HRM & the organizational performance (Guerci et al., 2016; Masri & Jaaron, 2017; O’Donohue & Torugsa, 2015; Yusoff, Nejati, Kee & Amran, 2018) and role of green HRM in providing a competitive advantage to the organization (Carmona-Moreno et al., 2012).

Richbell and Watts (2001) made an early attempt to test the effect of HRM practices in the Greenfield concept. Different scholars discussed the emergence of GHRM from different perspectives and most of them agreed on the strategic importance of GHRM especially those who acknowledge stakeholders’ perspectives. One such seminal work on GHRM was from Renwick et al. (2008) who conducted a comprehensive review to refine the literature and proposed agenda for future research. The study was a theoretical one based on a review of past seminal work to propose agenda of future research.

Jackson and Seo (2010) conducted a theoretical study and raised several questions related to GHRM scholarship which needed HRM scholars’ attention to address the issue of sustainability and environmental management. Jose Chiappetta Jabbour (2011) conducted a study in Brazil to assess how organizational culture, the teamwork of employees, and learning impact green HRM practices. This was one of the major pieces of evidence of empirical work related to GHRM scholarship. Jackson et al. (2011) conducted a theoretical study on GHRM which was published in a special issue. That study also provided useful future directions for GHRM scholarship. Muster and Schrader (2011) introduced a new paradigm related to GHRM scholarship. His work was on the green work-life balance. In this research, employees were seen from a binary perspective, i.e., both producers and consumers. This was a new dimension that opened up an opportunity for fellow researchers to look at the construct of GHRM from multiple angles.

Renwick et al. (2012) discussed the development of contemporary GHRM scholarship from both empirical and theoretical perspectives. Renwick et al. (2013) conducted a theoretical study concerning the categorization of literature based on the Ability –
Motivation – Opportunity theory and discussed the useful role of GHRM in managing employees in the workplace. Jabbour (2013) was probably the first study on the positive impact that green training and development can play in the workplace. This was again a theoretical work of systematic literature review in which a research framework was proposed for future researchers. Jabbour et al. (2013) checked the effect of green teams on environmental management in an empirical study conducted in companies in Brazil. Literature shows that green teams contribute positively towards GHRM.

Wagner (2012) studied GHRM through an empirical study. This study examined the effects of benefits arising from environmental management and whether those benefits helped the implementation of GHRM practices in German firms. Jain and D’lima (2018) stated that the organizational function of HRM is the driving function of environmental sustainability for an organization which provides it a competitive advantage and differentiates it from other organizations. Hence, in modern-day organizations, sustainability is the need for an organization for which HR professionals devise ecological policies and strategies. GHRM is one such important area for which researchers and practitioners are working actively. This research highlighted the role of ‘generation Y’ in protecting planet earth. Perceptions of generation Y were discussed along with the adoption of GHRM practices like green recruitment, green compensation, green involvement, etc. by the organizations.

Jackson et al. (2014) emphasized the strategic importance of GHRM. Palle et al. (2014) studied the phenomenon of employees’ green involvement in the Chinese context. The aspects which motivated the employees to show such volunteer behaviors of green involvement were discussed in that study. A link was established between HRM and environmental management in a case of special relevance to the Chinese context. Asia has been under the greater focus of sustainable development efforts and China has been playing a lead role in such efforts. Tariq et al. (2014) conducted a study in Pakistan on the motivation of employees for green tasks. This study focused on a state-of-the-art literature review from recent articles published in the journals of ISI web of knowledge. It was observed that employees’ green empowerment mediated this relationship. Employees would have more motivation for green tasks when they would have green empowerment and when they would be paid for those green tasks. So, a new and useful dimension of “green empowerment” was introduced in this research which has significant potential to explain GHRM as a potential determinant. The support for the new concept of green empowerment was taken from available literature on “employee empowerment” in HRM. The unit of analysis in this research was previous relevant studies which were recent, and 104 articles were collected and analyzed in this study. This new concept of green
empowerment has the potential to enhance productivity and organizational profitability.

Guerci and Pedrini (2013) conducted an empirical study in the Italian context. The purpose of this study was to explore how much consensus exists between HRM managers and managers dealing with sustainability-related issues. Jabbour et al. (2015) conducted an empirical study in the Brazilian context for green product development. Technical, human, and organizational factors were identified in the form of a conceptual model for better performance of companies in the market. Zibarras and Coan (2015) studied the role of HRM in training and encouraging employees to the green behaviors of protection and preservation of the environment in the context of the UK. Jabbour and Jabbour (2016) proposed an integrative framework of GHRM and green supply chain management. Markey et al (2015) conducted a study in the Australian context which was rather indirectly related to GHRM. Employee participation and interaction were observed in the workplace for carbon mitigation activities and programs. Subramanian et al. (2015) conducted an empirical study in the Chinese context and noted the positive impact of employees’ green competencies on green initiatives and the green practices of the organizations. This study proves that HRM competencies have a role in GHRM development. Another aspect evident in this research is the role of GHRM research in China.

Luu (2018) found that employees’ environmental commitment plays a positive mediating role between the green HR practices of the employees and the green recovery performance of the employees. Serving culture was tested for moderating role in this study and its effect was also positive for this relationship. According to the findings of this research, this study provided an empirical unpinning foundation for two theories which include attribution theory and social identity theory. The author of this research was of the view that the community-oriented collective culture of Vietnam may be one factor for an explanation of the green recovery performance of the employees. Environmental beliefs and green values help in maintaining a sustainable external environment (Reser & Bentrupperbaumer, 2005). For inculcating favorable beliefs for pro-environmental behaviors, green HR professionals need to make favorable interventions that could create pro-environmental beliefs, environmental knowledge, pro-environmental attitude, and behavior among the employees (Cherian and Jacob, 2012; Dumont et al., 2016). Millar, Sanyal, and Camen (2016) found that prominent organizations in developed countries have adopted green practices of sustainability and found them useful. Modern-day organizations are under scrutiny from multiple stakeholders and therefore many are adopting green business practices that are for the benefit of organizations.
Mishra (2017) explained the status of GHRM research and practice in the developing economy of India. This study explained that even in India, GHRM is now integrated with different organizational functions. He studied the manufacturing sector organizations in India which rely on the use of natural resources. Organizations using GHRM create a positive image for themselves in the market by creating a ‘feel good factor’, customers’ positive perceptions, and this also helps attract more potential job seekers. More observations in the Indian marketplace were that recruitment and selection can become greener if paper use is made limited and online recruitment is encouraged. Green training and learning were the strategies used by half of the organizations which he studied. It was found that most of such companies had also adopted the strategy of corporate social responsibility. Such companies often encourage green printing, less use of paper, email signature reducing printing of email, recycling of paper, and day-to-day waste recycling. Digitalization of work processes to develop employees’ portals was also among such measures.

Cheema, Pasha, and Javed (2015) conducted a study in Pakistan to study GHRM in small and medium-sized enterprises (SMEs). It was explained that most of the previous literature on GHRM studied this phenomenon in large organizations. Results of this study indicated that there are factors that are favorable for GHRM as well as factors that can be categorized as impediments to GHRM. Factors such as age, experience, and qualification of managers impact the adoption of GHRM practices a great deal. Srivastava and Shree (2018) explained how green involvement an important function of GHRM and the way it affects the employees’ perceived corporate social responsibility (CSR). This study showed that green training had a positive influence as mediating variable for such a relationship between green involvement and employees’ perception of corporate social responsibility (CSR). It was emphasized by the authors that such research would not only be helpful for policymakers but also stakeholders’ management. Table 1
Table 1. In-depth Analysis of Major Studies on GHRM

<table>
<thead>
<tr>
<th>Author/date/location</th>
<th>Study type</th>
<th>Measure of engagement used</th>
<th>Methods</th>
<th>Main approach, intervention, or factor</th>
<th>Mediating or moderating factors</th>
<th>Results</th>
<th>Dominant factor in theoretical framework</th>
</tr>
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<tr>
<td>Rangarajan and Rahm (2011) USA</td>
<td>Quantitative study</td>
<td>Questionnaire survey from HR directors and managers</td>
<td>Regression analysis</td>
<td>To know how GHRM penetrated in organizational practices of big cities in USA.</td>
<td>n/a</td>
<td>Positive association between geographic regions, wealth of cities and HR managers' realization for GHRM. Poor cities are less likely to invest for GHRM. Also, positive association between median income and employees training activities by organizations. Positive association between leadership development needs and green initiatives.</td>
<td>CSR</td>
</tr>
<tr>
<td>Zibarras and Coan (2015) UK</td>
<td>Quantitative study</td>
<td>Survey through questionnaire from HR professionals at all levels.</td>
<td>Both Pearson’s chi-square (x²) and Cramer’s V (crv) were used along with descriptive statistics.</td>
<td>To know the role of HR personnel (comprising directors, managers, owners and HR managers) in pro-environmental practices.</td>
<td>n/a</td>
<td>HR practices are not used heavily for making employees pro-environmental. The most frequently used practice in this regard was management involvement. Organizations lacked evidence that whether their HR practices change the behavior of employees or not.</td>
<td>Analysis of pro-environmental practices</td>
</tr>
<tr>
<td>O’Donohue and Torugsa (2015) Australia</td>
<td>Quantitative study</td>
<td>Survey through newly developed 13 items questionnaire from senior manager of small firms with a 6 months’ time lag.</td>
<td>SEM with LISREL, EFA and CFA for questionnaire validation.</td>
<td>To check the impact of proactive environmental management on financial performance of small firms through a questionnaire survey.</td>
<td>GHRM as moderator between proactive environmental management and firm’s financial performance.</td>
<td>+Proactive environmental management was significantly related with small firms’ financial performance. +Proactive environmental management was significantly related with small firms’ GHRM. This indicated that increased GHRM increases financial performance.</td>
<td>Absorptive capability theory Resource based view</td>
</tr>
<tr>
<td>Author/date/location</td>
<td>Study type</td>
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<td>Main approach, intervention, or factor</td>
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<tr>
<td>Jabbour et al. (2013) Brazil</td>
<td>Mixed methods study</td>
<td>Survey of ISO 14001 certified companies through questionnaire and then multiple case studies at four firms.</td>
<td>EFA and correlation for quantitative survey data. For case studies, data was collected through interviews, observations and document analysis.</td>
<td>To check the impact of green teams on GHRM through a mixed methods approach.</td>
<td>n/a</td>
<td>Green teams have positive association with evolutionary stages of GHRM. Case studies results were that three out of four companies were engaged in pro-environmental practices.</td>
<td>Environmenta l management by organizations</td>
</tr>
<tr>
<td>Jain and D’lima (2018) India</td>
<td>Quantitative study</td>
<td>Survey through questionnaire</td>
<td>EFA and descriptive statistics</td>
<td>To know the perceptions of generation Y (young people between age group of 18 - 24 years) about GHRM</td>
<td>n/a</td>
<td>Companies with green management can attract generation Y population as they look for green organizations for jobs.</td>
<td>Perceptual level analysis of young population</td>
</tr>
<tr>
<td>Jackson and Seo (2010) USA</td>
<td>Conceptual study</td>
<td>n/a</td>
<td>n/a</td>
<td>It was a Conceptual review</td>
<td>n/a</td>
<td>Organizations make written policies and image for gaining competitive advantage. This interaction of HRM and environmental management is still evolving area of research but focus is increasing on it. For GHRM scholars, the website <a href="http://www.greenhrm.org">www.greenhrm.org</a> is a useful resource.</td>
<td>Addressing the link of strategic HRM and environmental sustainability</td>
</tr>
<tr>
<td>Guerci and Pedrini (2013) Italy</td>
<td>Quantitative study</td>
<td>Questionnaire survey of 89 managers committed to sustainability</td>
<td>Paired sample t test Wilcoxon signed rank test</td>
<td>To assess that how much consensus exists between HRM managers and sustainability managers during the phase of sustainability driven change.</td>
<td>n/a</td>
<td>HR factors are considered important both by sustainability managers and HR managers especially for implementing sustainability related change.</td>
<td>Elbirt (2005) model</td>
</tr>
<tr>
<td>Luu (2018) Vietnam</td>
<td>Quantitative study</td>
<td>Survey through questionnaire</td>
<td>SEM through M Plus 7.7</td>
<td>To know about the relationship of GHRM practices and green recovery performance employees’ environmental commitment as a mediator. Serving culture as moderator</td>
<td>employees’ environmental commitment plays a positive mediating role between GHRM practices of the employees and green recovery performance of the employees.</td>
<td>Attribution theory Social identity theory</td>
<td></td>
</tr>
<tr>
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<tr>
<td>Reser and Bentrupperbaumer, (2005) Australia</td>
<td>Qualitative with conceptual analysis</td>
<td>Interviews of visitors and environmental management agency personnel from World Heritage places, Australia</td>
<td>Pluralistic psychometric definitional and discourse analysis. Interviews with descriptive analysis</td>
<td>To have a discourse analysis of pluralistic psychological discourse analysis for environmental values and natural resource management.</td>
<td>n/a</td>
<td>Use value related variables from value-belief-norm theory of environmentalisms were discussed. Values such as Bio-spheric values, altruistic, egoistic were discussed. Types of values norms, behaviors were discussed. Results showed the need for pluralistic value based psychological understanding of world heritage places for researchers.</td>
<td>value-belief-norm theory</td>
</tr>
<tr>
<td>Cherian and Jacob, (2012) United Arab Emirates (UAE)</td>
<td>Review paper</td>
<td>n/a</td>
<td>Review of relevant past research papers and case studies</td>
<td>n/a</td>
<td>Themes emerging from literature show that proper Implementation of GHRM practices results in retention of employees, improved public image, attracting better talent, improvement in productivity and performance, competitiveness and sustainability.</td>
<td>Green HRM</td>
<td></td>
</tr>
<tr>
<td>Dumont, Shen &amp; Deng (2016) China</td>
<td>Quantitative study with pre-study interviews from HR professional and executives</td>
<td>Questionnaire for survey from employees and direct supervisors of Chinese subsidiary of Australian multinational enterprise.</td>
<td>SEM with CFA</td>
<td>To explore the effect GHRM on employee workplace green behavior</td>
<td>Individual green values as moderator. Psychological green climate as mediator.</td>
<td>GHRM have the potential to affect the social and psychological aspects which in turn influence the green behavior of the employees.</td>
<td>Psychological green climate</td>
</tr>
<tr>
<td>Author/date/location</td>
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<tr>
<td>Haddock-Millar, Sanyal and Camen (2016), USA</td>
<td>Qualitative study</td>
<td>Multi case study with 50 participants using interviews and focus groups.</td>
<td>Coding of major themes that emerged from interviews and focus group discussions.</td>
<td>To address the lack of international comparative GHRM research in companies.</td>
<td>n/a</td>
<td>Different factors affect the application of GHRM practices in subsidiaries of multinational companies. For example, cultural aspects and work norms etc., need to be considered while a multinational company adopts GHRM practices in different countries. This research primarily focused on the approaches used by multinational companies for operations aligned with GHRM in UK.</td>
<td>Case study-based approach</td>
</tr>
<tr>
<td>Guerci, Longoni and Luzzini (2015) Italy</td>
<td>Quantitative study</td>
<td>Multi-respondents survey from HR and Supply Chain managers.</td>
<td>Smart PLS SEM</td>
<td>To assess how GHRM practices play their role in mediating the relationship between external pressures (1. Customers 2. Regulators) and environmental performance.</td>
<td>GHRM practices as mediators</td>
<td>Hypothesized mediation model was confirmed, Stakeholders’ theory was used as overarching theory.</td>
<td></td>
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<tr>
<td>Nejati, Rabiei and Chiappetta Jabbour (2017) Iran</td>
<td>Quantitative study</td>
<td>38 items questionnaire</td>
<td>PLS SEM for data analysis</td>
<td>Testing the effect of GHRM practices on green supply chain management in 400 randomly selected firms from Iran.</td>
<td>Resistance to change as negative moderator</td>
<td>During the time of lesser resistance to change in employees, a positive relationship between green recruitment and selection can be found with green supply chain management</td>
<td>Change management and GHRM</td>
</tr>
<tr>
<td>Jose Chiappetta Jabbour (2011) Brazil</td>
<td>Quantitative study</td>
<td>Survey through 23 items’ questionnaire from 94 Brazilian companies with ISO 14001 certification.</td>
<td>Descriptive analysis of percentage response</td>
<td>To analysis the level of GHRM adoption, along with emphasis on learning, organizational culture and team work.</td>
<td>n/a</td>
<td>Companies dealing with environmental management tend to adopt the measures similar to GHRM.</td>
<td></td>
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<td>Author/date/location</td>
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<tr>
<td>Srivastava and Shree (2018) India (In CSR)</td>
<td>Multi-method approach. First phase was archival research followed by a case study technique.</td>
<td>Data was collected from manufacturing companies for second phase case studies to confirm results of phase 1.</td>
<td>Multi-method approach. First phase was archival research followed by a case study technique.</td>
<td>To check the status and challenges of GHRM in India.</td>
<td>n/a</td>
<td>Green involvement of employees enhances the perceived corporate social responsibility. There is more scope for the utilization of GHRM in Indian organizations for pro-environmental behaviors for which support of top management and mutual learning plays a key role.</td>
<td>n/a</td>
</tr>
<tr>
<td>Yusliza et al., (2017) Malaysia</td>
<td>Quantitative study</td>
<td>Self-administered questionnaire for data collection from manufacturing companies.</td>
<td>PLS SEM</td>
<td>Empirically testing the relationship of green employee empowerment, GHRM practices and E-HRM.</td>
<td>n/a</td>
<td>Green employee empowerment has a significant positive relationship with GHRM practices. HR business partner role is important in proper implementation of GHRM. Electronic HRM is not related with the dimensions of GHRM.</td>
<td>Resource Based View</td>
</tr>
<tr>
<td>Jabbour (2013) Brazil</td>
<td>Literature review and a new research framework</td>
<td>n/a</td>
<td>Integrative literature review</td>
<td>Collection of studies on green training and environmental training then coding them and deducing results for research framework.</td>
<td>n/a</td>
<td>Environmental training is very useful for a sustainable and green workplace. Research framework with 9 recommendations that may advance the field was presented. Future research directions for green training have been provided especially for measuring and conceptualizing it.</td>
<td>n/a</td>
</tr>
<tr>
<td>Wagner (2012) Germany</td>
<td>Quantitative study</td>
<td>Two surveys from German manufacturing companies with responses from environmental manager or managing direction. EMAS or ISO 14001 was not the criterion for inclusion in survey.</td>
<td>Panel regression models, namely random and fixed effects.</td>
<td>To test the association between GHRM benefits and GHRM system implementation through a longitudinal survey.</td>
<td>n/a</td>
<td>Positive association between GHRM benefits and GHRM system implementation. It also Results in higher economic benefits for HRM.</td>
<td>n/a</td>
</tr>
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<tr>
<td>Srivastava and Shree (2018) India</td>
<td>Multi-method approach. First phase was archival research followed by a case study technique.</td>
<td>Data was collected from manufacturing companies for second phase case-studies to confirm results of phase 1.</td>
<td>Multi-method approach. First phase was archival research followed by a case study technique.</td>
<td>To check the status and challenges of GHRM in India.</td>
<td>n/a</td>
<td>Green involvement of employees enhances them perceived social responsibility. There is more scope for the utilization of GHRM in Indian organizations for pro-environmental behavior for which support of top management and mutual learning plays a key role.</td>
<td>n/a</td>
</tr>
<tr>
<td>Mishra (2017) India</td>
<td>Multimethod approach</td>
<td>Extensive literature review in phase 1 and data collection from manufacturing companies in phase 2.</td>
<td>Archival research in phase 1 and case study technique in phase 2.</td>
<td>How GHRM creates positive image in the market.</td>
<td>n/a</td>
<td>Organizations using GHRM create their positive image in the market by creating a “feel good factor” and customers’ positive perceptions. This also helps in attracting more potential job seekers. There is possibility to further enhance the use of GHRM in Indian companies with top management support and mutual learning.</td>
<td>n/a</td>
</tr>
<tr>
<td>Yusliza et al. (2019) Malaysia</td>
<td>Quantitative study</td>
<td>Self-administered questionnaire</td>
<td>Partial least squares method</td>
<td>To analyze the relationship between top management commitment, corporate social responsibility (CSR) and green human resource management (GHRM) from manufacturing and services sectors in Malaysia.</td>
<td>n/a</td>
<td>Positive relationship between top CSR management commitment and CSR, as well all dimensions of GHRM.</td>
<td>n/a</td>
</tr>
<tr>
<td>Brekke and Nyborg (2008) Norway</td>
<td>Theoretical paper</td>
<td>n/a</td>
<td>Literature review</td>
<td>To analyze whether workers are attracted to socially responsible firms or not.</td>
<td>n/a</td>
<td>Image of corporate social responsibility proves handy for better recruitment. socially responsible (green) and non-responsible (brown) firms exist in equilibrium. Motivated workers join green firms.</td>
<td>n/a</td>
</tr>
<tr>
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<tr>
<td>McWilliams and Siegel (2000) USA</td>
<td>Quantitative paper</td>
<td>Organizational data</td>
<td>Descriptive statistics and correlation of variables</td>
<td>To identify the econometric flaw of social and environmental performance. Assessing the effect of CSR on firm performance.</td>
<td>n/a</td>
<td>CSR enhances organizational performance.</td>
<td>CSR</td>
</tr>
<tr>
<td>Alfred and Adams (2009) USA</td>
<td>Theoretical paper</td>
<td>n/a</td>
<td>Literature review</td>
<td>To explore the potential for green management in academia and for practice.</td>
<td>n/a</td>
<td>More research is required for debate on the relationship of corporate social responsibility and GHRM</td>
<td></td>
</tr>
<tr>
<td>Du et al. (2010) USA</td>
<td>Theoretical paper</td>
<td>n</td>
<td>Literature review for new research frame</td>
<td>To propose a new model on CSR communication, contingency factors and communication outcomes.</td>
<td>n/a</td>
<td>Role of communication is important with respect to effectiveness of corporate social responsibility in the organizational strategy</td>
<td></td>
</tr>
<tr>
<td>Al Kerdawy (2018) Egypt</td>
<td>Quantitative study</td>
<td>Questionnaire survey</td>
<td>SEM</td>
<td>To analyze the role of GHRM for CSR.</td>
<td>Moderating role of CSEV</td>
<td>Corporate support for employee volunteering which influences corporate social responsibility as a moderator. Similarly, GHRM also had a positive impact on corporate social responsibility</td>
<td>CSR</td>
</tr>
<tr>
<td>Richbell and Watts (2001)</td>
<td>Quantitative study</td>
<td>Questionnaire survey</td>
<td>Structural equation modeling on data from 139 subordinate–leader dyads</td>
<td>To analyze environmental descriptive norms with respect to pro-environmental behaviors of managers and employees.</td>
<td>n/a</td>
<td>Leaders' environmental descriptive norms predicted their environmentally-specific transformational leadership and their workplace pro-environmental behavior. These both were positively associated with employees’ harmonious environmental passion</td>
<td>CSR</td>
</tr>
<tr>
<td>Yong and Mohd-Yasoff, (2016) Malaysia</td>
<td>Quantitative study</td>
<td>Questionnaire survey for manufacturing and service companies of Malaysia</td>
<td>Regression analysis</td>
<td>To assess the effect of strategic HR competencies on adoption of GHRM</td>
<td>n/a</td>
<td>Change champions and strategic positioners had shown a significant relationship with GHRM practices</td>
<td>Strategic HR competencies</td>
</tr>
<tr>
<td>Author/Date/Location</td>
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<td>Masri and Jaaron, (2017) Palestine</td>
<td>Exploratory research inquiry using a mixed methods approach</td>
<td>Survey and semi structured interviews from HR managers from food, chemical and pharmaceutica l sectors.</td>
<td>ANOVA, Correlation, themes extraction etc.</td>
<td>To assess the impact of GHRM practices on environmental performance.</td>
<td>n/a</td>
<td>New model is useful showing positive influence of GHRM on environmental performance.</td>
<td>GHRM</td>
</tr>
<tr>
<td>Yusoff, Nejati, Kee and Amran (2018) Malaysia</td>
<td>Quantitative study</td>
<td>Survey through questionnaire</td>
<td>SEM</td>
<td>To test the effect of GHRM on environmental performance</td>
<td>n/a</td>
<td>Environmental sustainability is perceived as a factor of quality in hotel industry of Malaysia. GHRM is being adopted in Malaysia with good results.</td>
<td>GHRM</td>
</tr>
<tr>
<td>Siyambalapitiya, Zhang and Liu (2018). Sri Lanka</td>
<td>Quantitative study</td>
<td>Survey through questionnaire from HR professionals of four- and five-star hotels in Sri Lanka</td>
<td>Descriptive statistics, PCA, Interrelationshi p of GHRM practices based on mean values,</td>
<td>To test the effect of GHRM practices on EM practices and environmental performance.</td>
<td>n/a</td>
<td>GHRM practices were empirically tested and their relationship with environmental management practices were proposed with a new model.</td>
<td>GHRM</td>
</tr>
<tr>
<td>Carmona-Moreno, Cespedes-Lorente and Martinez-del-Rio (2012) Spain</td>
<td>Quantitative study</td>
<td>Survey through questionnaire from CEOs of 94 Spanish chemical firms.</td>
<td>Hypothesis testing using partial least square methodology</td>
<td>To check the effect of environmental management practices on competitive advantage of cost and differentiation.</td>
<td>Environmenta l HRM as moderator</td>
<td>Firms with sustainable HR practices can gain competitive Advantages like of lower cost, product and service Differentiation. Such firms were also paying more to their employees.</td>
<td>Sustainable HRM</td>
</tr>
<tr>
<td>Renwick et al., (2012) UK</td>
<td>Systematic Literature Review</td>
<td>n/a</td>
<td>n/a</td>
<td>To assess the role of GHRM for organizational advantage explained with the help of Ability – Motivation – Opportunity theory.</td>
<td>n/a</td>
<td>Useful gaps for future research were recommended.</td>
<td>GHRM and Ability – Motivation – Opportunity theory</td>
</tr>
<tr>
<td>Barney &amp; Wright, 1998, USA</td>
<td>Theoretical paper</td>
<td>n/a</td>
<td>Literature review</td>
<td>To analyses how the debate on the role of HRM as a strategic and competitive advantage under the light of VRIO Framework.</td>
<td>Role of HR executive is very important as a strategic partner for sustainable advantage for the organizations.</td>
<td>Strategic HR and sustainable advantage</td>
<td></td>
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<tr>
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<td>Harris and Crane (2002) UK</td>
<td>Qualitative study</td>
<td>44 semi structured interviews with managers and executives.</td>
<td>Grounded study of theory development (Glaser and Strauss, 1967) with preconceived pragmatic approach of (Turner, 1981)</td>
<td>Values and beliefs are important for sustainability. Green cultural change was empirically studied was empirically studies with managers' perceptions that it acts as a facilitator or barrier.</td>
<td>n/a</td>
<td>Role of management is perceiving and executing green Cultural change is very important.</td>
<td>Green cultural change</td>
</tr>
<tr>
<td>Roscoe, Subramanian, Jabbour and Chong (2019) China</td>
<td>Quantitative study</td>
<td>Survey of 204 employees from large Chinese manufacturing firms.</td>
<td>EFA, CFA, Reliability analysis etc.</td>
<td>To analyze the role of GHRM with respect to enablers of green culture.</td>
<td>n/a</td>
<td>GHRM supports enablers of green culture which include Message credibility, leadership emphasis, green involvement of employees and employees’ empowerment was taken as enablers of green organizational culture.</td>
<td>GHRM</td>
</tr>
<tr>
<td>Subramanian et al. (2015) China</td>
<td>Quantitative study</td>
<td>Survey of 1230 employees from Chinese industries.</td>
<td>Structural equation modeling</td>
<td>Robert’s competencies Framework for assessing employees’ green competencies</td>
<td>n/a</td>
<td>Employees’ green competencies were tested on the green initiatives and on the green practices of the organizations. This Study proves that HRM competencies have a role in GHRM development.</td>
<td>GHRM Robert’s competencies Framework</td>
</tr>
<tr>
<td>Muster and Schrader (2011) Germany</td>
<td>Theoretical paper</td>
<td>n/a</td>
<td>Literature review</td>
<td>Study past relevant theory and literature.</td>
<td>n/a</td>
<td>Introduced the idea of binary perspective for employees by simultaneously treating them as customers of green products. Employees may provide useful feedback in advance to the companies regarding the potential acceptance or rejection of green products through this binary perspective.</td>
<td>n/a</td>
</tr>
<tr>
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<tr>
<td>Palle et al. (2013)</td>
<td>Quantitative study</td>
<td>Survey of 1230 top executives and frontline employees from Chinese firms</td>
<td>Descriptive statistics, Regression analysis and CFA</td>
<td>To test the impact of SHRM on environmental performance of organizations.</td>
<td>OCB as mediator.</td>
<td>A link was established between HRM and environmental management in a case of special relevance to Chinese context. OCB fully mediated relationship between SHRM and environmental performance.</td>
<td>n/a</td>
</tr>
<tr>
<td>Markey, McIvor and Wright (2015)</td>
<td>Quantitative study</td>
<td>Survey of 662 Australian employers</td>
<td>Descriptive analysis</td>
<td>Employees’ participation and interaction was observed in the workplace for carbon mitigation activities and programs.</td>
<td>n/a</td>
<td>Strong positive association between carbon mitigation activities and employees’ motivation and involvement for such activities.</td>
<td>Employees environmental motivation</td>
</tr>
<tr>
<td>Jabbour and Jabbour (2016)</td>
<td>Review paper</td>
<td>n/a</td>
<td>Systematic literature review</td>
<td>To analyze the similarities and differences of GHRM and green supply chain management for research recommendations to researchers and practitioners.</td>
<td>n/a</td>
<td>These two constructs of GSCM and GHRM can integrate. For enhancing sustainability performance of companies and more research is required for it.</td>
<td>Cross disciplinary integration approach</td>
</tr>
</tbody>
</table>

4. Discussion and Future Research Directions

GHRM has different practical implications for practice in the modern workplace. If practices of GHRM are employed positively, then organizations receive positive implications. Different practices can be adopted in the workplace through managerial initiatives for social responsibility. For example, an agenda for the top management might be to have overall green practices resulting in a better societal image of the organization. Sustainability, reduction of carbon emissions, leaders’ dedication, and a paperless environment may be the other important green initiatives on the part of organizations in line with the typical dimensions of GHRM. From the perspective of stakeholders’ theory, such initiatives can help organizations in the better formation of organizations green image in the mind of customers, regulators, competitors, and the general public. Therefore, following is the proposition of this review-based study.

Proposition 1: Implementation of green HRM practices generates a perceived eco-friendly image about the organization in the mind of organizational stakeholders. From the managerial perspective, the improved overall green focus at the workplace can help raise the standards of quality in the manufacturing process. Orientation programs for new incumbents and job rotation aiming at enhancing employees’ green awareness can also help this cause. Training for green health and safety at the...
workplace after green recruitment is another area of research and is worth exploring in future research. Conducting a green audit and proper use of sunlight instead of electric lights can be useful as well. All such aspects of energy conservation, resource conservation, recycling, etc. are linked to the concept of green HRM because such practices can only be employed through the workforce, ideally with the initiative of green HRM activities. Therefore, following are the propositions of this review-based study.

Proposition 2: Use of green HRM practices promotes the use of alternate sources of energy.

Proposition 3: Green training enhances the positive impact of green recruitment in the organization and vice versa.

Chan (2005) conducted a study in China and emphasized the importance of the Natural Resource Based View of a Firm (NRVF). It was found that those firms which were acting on this view were doing well in China. Such information can be useful for new organizations which are going to invest in China as organizations’ environmental management efforts are seen positively in China. Such research in other emerging economies may be a potential source for further exploring this concept. Dumont, Shen, and Deng (2016) explained that the practices of GHRM have the potential to affect the social and psychological aspects which in turn affect the green behavior of the employees. This research shows that just like the traditional HRM practices, cognition and psychological aspects related to the employees need further exploration by GHRM scholars. This is one such interesting literature gap that opens up the boundaries for researchers across the discipline of psychology, traditional HRM practices, and GHRM practices. Measures to adopt green behavior in the organization can be a potential source of competitive and long-term strategic advantage provided the top management’s skill to properly assess employees’ attitudes toward change is existing. The role of traditional change management tactics and Human Resource Development (HRD) seems established here. A window of opportunity opens again here for future researchers of GHRM. Therefore, the following are the propositions of this review-based study.

Proposition 4: Green HRM positively affects the social and psychological at the workplace which in turn positively shapes the employees’ green behavior.

Proposition 5: Green HRM practices have the potential to impact the employees’ cognition and psychological bonding at the workplace for societal goals.
The role of an HR manager is also important for other green HRM practices apart from the known GHRM functions like green recruitment and selection, green training and development, green performance management, green reward and compensation, green involvement, etc. For example, an HRM manager can motivate the employees to green behaviors like plantation campaigns, plant protection in office premises, elimination of cigarette smoking, and use of electronic HRM (E-HRM) and GHRM functions. A paperless environment, digital work-from-home option, and employees’ awareness about GHRM functions may be the other options. Some other expectations from managers regarding environmental protection may include reducing the use of plastic in the workplace such as plastic bags and use of ceramic cups instead of disposable cups. Encouraging a paperless environment and use of E-HRM practices such as online leave from, online performance records, online communication like emails, etc. Green audit including the check and balance on the use of excessive electric energy in the workplace is also good. Recycling, water conservation, displaying notices of no smoking zones. Proper recycling, the use of solar energy and solar panels, and the use of a video conferencing facility and other software for live communication can reduce the cost of transportation and the burning of fuel and energy. Acquiring environmental standards such as ISO 14001 can be useful as well. All these aspects require the effort of human resource management in the form of green HR involvement, green reward, green training, and development, etc. Empirical research for all such activities in different countries of the world is needed. Therefore, following is the proposition of this review-based study.

Proposition 6: Implementation of green HRM practices promotes extra-role green performance behavior among the employees.

Mishra (2017) through a study in India found that companies often measure the green performance of employees. But there is no defined criterion of measurement of green performance for an organization. This is another literature gap for future researchers. Song and Yu (2017) found that sustainability is a challenge for modern organizations and efforts of green innovation by the organizations can prove to be a way of competitive advantage. The study emphasized the practical implication that managers should focus on green innovation and green creativity for the green identity of the organization. Apart from the role of organizations and managers, the role of employees is also very critical for the adoption of GHRM practices. For example, the use of public transport or shared van for office arrival, use of bikes instead of cars, adoption of GHRM practices, participation in green training programs, knowledge sharing, efforts to save energy, etc. Therefore, the following are the propositions of this review-based study.

Proposition 7: Organizational reward promotes the tendency of green learning behavior among employees.
Proposition 8: Intent of top leadership is essential for setting performance benchmarks for green performance in the organizations.

Green HRM research has been mostly conducted in the manufacturing sectors of different countries. Future researchers to come up with green HRM research in services industries as well. Furthermore, the cost associated with green HRM is a perceived hindrance to the implementation of green HRM in organizations. Future researchers may come up with empirical research on this factor of cost and its implication for GHRM in different countries. Results of such cost-related factors may vary from sector to sector in different countries depending on the profitability of an industrial or commercial sector along with the macro-economic situation of a country. Future researchers may explore all these factors associated with GHRM and systematic literature reviews on GHRM are also needed on the concept of GHRM from time to time. Phetvaroon (2019) used social identity theory as the underpinning theory in research for collecting data from the hotel industry in Thailand. The practical recommendation made in this study was that the top management and HR managers should make organizational policies and departmental goals for achieving those environmental objectives. Researchers can explore the role of top management at a wider scale for establishing its impact on GHRM.

5. Conclusion
GHRM needs to be studied at a broader level in multiple countries, in multiple industries, and different types of organizations as this concept is still in the evolutionary phase and needs scholarly attention. The gradual impetus for research on GHRM would establish this concept and organizational function as a source of strategic advantage, societal awareness, and stakeholders’ satisfaction. (Fernandez, Junquera & Ordiz, 2003; Ren, Tang & Jackson, 2017; Jabbour & Santos, 2008). There are many research gaps in the available literature on GHRM for which future researchers need to step forward. Our overall conclusion from this study is that GHRM is a strategic extension of traditional HRM functions. It’s not a replacement for traditional HRM, rather it should be seen as a supportive function / strategic option with traditional HRM. GHRM can be used as a real source of strategic and competitive advantage, especially in developed countries like the USA, many European and Australian countries, etc. Emerging economies like China, India, Malaysia, and Brazil are promoting GHRM research due to the increase in industrialization after the 1970s. There is little evidence of GHRM research from under-developed countries; however, GHRM scholarship needs to be encouraged in all parts of the world as it supports the global cause of environmental management, sustainable development, and elimination of global warming. This study added to the current conceptualization of GHRM research, scale identification, discussion on seminal work, country-level comparison of GHRM research, and future directions for
researchers were also given. Time and resource constraints were the limitations of our study as well. Constructive comments and critiques from contemporary scholars of GHRM would be appreciated.

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