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Green HRM for Sustainable Development

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1. Introduction

The current world scenario in terms of consumption and subsequent depletion of natural resources has led to the emergence of a buzz word called "GREEN HRM". The concept primarily focuses on developing a people-oriented culture to foster possibilities of preserving the environment and gradually leading to sustainable development for the world at large. In line with the massive development resultant of the industrial revolution, which started somewhere in the middle of 1700 s, the world has witnessed gradual outbreaks in terms of emergence of industries, economic growth, higher standards of living, availability of world-class products and amenities, and what not. We rely on the environmental resources for everything; from the food we eat to the electricity we use and the clothes we wear, everything is derived from the environment. But somewhere in the crowd of all these achievements, the environmental aspect was taken for granted and a lot of harm has already been done to the environment, the consequences of which are very much evident in the prevailing scenario. Air pollution, water pollution, soil contamination and habitat destruction are the most evident consequences of industrial development. Mounting concerns regarding the environment have led to the emergence of several laws and legislations with respect to environmental issues, over the years, to regulate the impact of human activities on the environment. A summary of some of the related initiatives can be stated as follows: [Table 1](#).

The summary of the timeline gives a very clear indication of the continued efforts across the world for the conservation of various environmental components. The issues and concerns are ever expanding at an alarming momentum and despite of all the legislations and laws, the undesirable and unfavourable situations have grown to a state of massive remorse. As a result, organizations and industries, which are the major starting points with respect to all sorts of environmental issues, resolved to resort to varied practices which may enable them to play their role in the conservation of environment. In fact, it has to be taken as a duty or responsibility at industrial as well as organizational levels in the form of Corporate Social Responsibility. The mounting concern for global environment and the development of universal standards for

proactive Environmental Management [1], have mandated the industries and businesses to adopt 'green practices. Advent of concepts like Green Management, Green Marketing, Green Accounting, etc. came as a responsible response. Green HRM is a latest addition to the array and has gradually gained popularity across the globe.

1.1. Rationale of going Green

The 21st century organizations are facing some really intricate and noteworthy managerial challenges in the form of environmental challenges [2] like climatic variations, rapidly diminishing resources and steep drop of biodiversity and ecosystem integrity. Organizations and industries are significantly responsible for the environmental degradation [3,4]. Governments, general public and business organizations across the world are highly concerned about the alarming issues [5]. Favourable steps have been initiated by different organizations and individuals like environmentalists and nature lovers for protecting and saving the environment against various threats. So basically, going green is to be understood as an initiative linked to the global survival.

2. Green HRM

The literal sense of the concept of Green HRM is the promotion of sustainable utilization of resources within the organizations through HRM policies. The concept is a result of increased efforts to integrate proactive environmental management with HR practices. Since HRM plays the critical role in developing the sustainability strategy of the organization, the onus of inculcating the required skills, inspiration and awareness for going green in actual practice, lies largely with the HR structure of the organization. In addition to the primitive motive of HRM of preserving the knowledge capital, Green HRM incorporates the features of environmentally friendly HR practices at the workplace [6]. The rationale of Green HRM is to craft an inspired, empowered and aware category of employees, inclined towards environmental wellbeing [7-9], so as to facilitate an all-inclusive tactic towards forming a sustainable culture. Employees at all levels need to be involved in green initiatives [10]. Green HRM has been conferred with the direct responsibility towards moulding out a green-workforce which would consider, appreciate, practice and maintain the Go-Green concept in all the HR modules like recruitment, training, development,

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Table 1
Summary of Important Environmental Declarations (). Source: www.unesco.org

The Ramsar Convention, 1971	Conservation and sustainable utilization of wetlands, recognizing the fundamental ecological functions of wetlands and their economic, cultural, scientific, and recreational value.
The Vienna Convention, 1985	Protection of Ozone layer
The Montreal Protocol, 1987	Protection of the ozone layer by phasing out the production of substances like CFCs and HFCs, responsible for ozone layer depletion.
The Kyoto Protocol, 1997	Stabilization of greenhouse gas concentrations at a safe level in the atmosphere to prevent dangerous consequences.
The Copenhagen Agreement, 2007	Discussions on the set-ups needed for operative global climate change co-operations, along with the enhancements to the clean development mechanism of the KYOTO protocol.
The Paris Agreement, 2015	Protection of environment by reducing global greenhouse gas emissions and the threat of climatic changes.

etc., whose benefits will be extended comprehensively to the individual employee, business, society, nation and the global environment.

Table 2
Summary of Literature Review.

Year	Authors	Topic	Objective	Type of Research Paper	Findings	References
2019	Jing Yi Yong M.-Y. Yusliza and Olawole Olanre Fawehinmi	Green human resource management A systematic literature review from 2007 to 2019	The objective of this paper is to examine the Green HRM research in terms of how the field is represented along a number of aspects including journal, year, national context and research methods. In addition, the overall purpose is to systematically review the development of the extant literature focused on Green HRM to identify what research topics have addressed and where additional opportunities for future research exist.	Literature Review	The research articles published between 2007 and 2019 were systematically analyzed, following explicit criteria and systemic procedures. The relevant information on Green HRM literature was highlighted, underscoring its conceptualization, implementation, determinants and outcomes in both organizational and individual contexts.	Jing Yi Yong, M.-Y. Yusliza, Olawole Olanre Fawehinmi, (2019) "Green human resource management: A systematic literature review from 2007 to 2019", Benchmarking: An International Journal, https://doi.org/10.1108/BIJ-12-2018-0438
2016	Julie Haddock-Millar, Chandana Sanyal & Michael Müller-Camen	Green human resource management: a comparative qualitative case study of a United States multinational corporation	This research focuses on three country subsidiaries of an MNC, identifying specific strategic, operational and cultural dimensions associated with environmental sustainability. It offers insight into the rationale and stakeholder perceptions of the positioning and alignment of the environment and HR function across these three European subsidiaries. By comparison, recent research focuses on organizations in the same national context but do not explicitly examine international differences, whereas this study specifically highlights international management practices with a particular focus on Green HRM. This research focuses on the food service industry.	Quantitative Research	This paper has identified a number of similarities and differences in the way in which a global foodservice MNC approaches Green HRM in an international context across three European subsidiaries.	Haddock-Millar, J., Sanyal, C., & Müller-Camen, M. (2016). Green human resource management: a comparative qualitative case study of a United States multinational corporation. <i>The International Journal of Human Resource Management</i> , 27(2), 192-211.

3. Literature Review

The concern regarding the depleting environment and its resources has been growing immense with the passage of time. Researches have been continuously conducted over decades which simply signify the high deterioration which our environment is going through. Many mandatory initiatives have been taken up at governmental levels as a measure to return the glory of the nature. But without the initiatives from the building blocks of the nations, a comprehensive result could not be attained. In fact, the Principle I of the Rio Declaration on Environment and development states that "Human beings are at the centre of concerns for sustainable development [11]. They are entitled to a healthy and productive life in harmony with the nature". There is thus a need to initiate environment saving practices right at the individual levels, and organizational efforts could play a significant role in the same [12]. Organizational HR practices are capable of developing the right attitude needed to carry forward the green-led initiatives right at the employee level, which gets further carried to the society as well [10,13]. Through a European research focussed on food-service MNC, it was identified that there is a great level of similarity in the tactics adapted by organizations at International level for protecting their environment. But country specific initia-

Table 2 (continued)

Year	Authors	Topic	Objective	Type of Research Paper	Findings	References
2020	Paula Benevene and Ilaria Buonomo	Green Human Resource Management: An Evidence-Based Systematic Literature Review	A review of the empirical, evidence-based literature about the antecedents and outcomes of GHRM practices.	Literature Review	This review contributes to individual employee-related antecedents and consequences of GHRM practices, thus providing more information on how employees could be involved in green activities and how they could impact the green performance of the organization.	Benevene, P., & Buonomo, I. (2020). Green Human Resource Management: An Evidence-Based Systematic Literature Review. Sustainability, 12(15), 5974.
2016	RENWICK, Douglas W.S., JABBOUR, Charbel J.C., MULLER-CAMEN, Michael, REDMAN, Tom and WILKINSON, Adrian	Contemporary developments in Green (environmental) HRM scholarship	The purposes of this article are to review contemporary developments in the emerging research literature to frame the new works appearing in this collection on GHRM and to extend such understanding through detailing a new research agenda.	Literature Review	In summary, the contemporary GHRM literature focuses on workplace, firm and industry level practices, and the most recent studies emerging examine green HR systems and individual staff behaviors, along with multi-level dynamics and new theoretical directions. It also outline a detailed research agenda in GHRM to provide an updated, specific exposition of possible research avenues arising to help guide scholars further in this field.	Douglas W.S. Renwick, Charbel J.C. Jabbour, Michael Muller-Camen, Tom Redman & Adrian Wilkinson (2016) Contemporary developments in Green (environmental) HRM scholarship, The International Journal of Human Resource Management, 27:2, 114–128, DOI: https://doi.org//10.1080/09585192.2015.1105844
2015	Suzanne Benn Stephen T.T. Teo Andrew Martin	Employee participation and engagement in working for the environment	To explore the role of specific HRM practices in the planning and implementation of environmental initiatives in terms of their impact on employee attitudes to the organization and to its environmental programme.	Mixed Method Approach	Survey data, analysed using path analysis, showed that participation in environmental initiatives is directly associated with higher levels of employee engagement with the organization, higher rating of their organization's environmental performance, and lower intention to quit. The qualitative study supports the quantitative data, also highlighting other aspects of environmental initiatives that may affect employee attitudes.	Benn, S., Teo, S. T., & Martin, A. (2015). Employee participation and engagement in working for the environment. Personnel Review.

tives are also being resorted to for the cause in concern [14]. As the organizations attain growth over a period of time, their involvement with the environment also takes an altogether new frame. With the increasing complexity of the environmental issues and the concerns about them, there is a need to figure out concrete strategies even at the organizational level, since organizations are at the heart of the society and nation, for the purpose of dealing with the emerging issues Table 2.

With specific reference to HR, the figure below gives a gist of the emerging roles to be played by the HR officials, with respect to Green HRM practices. It also signifies that the strategy shall be to move from the non-green practices to the Dark Green initiatives, which can be attained not only through continuous up gradation of Green strategies but also with proper well thought implementation of the strategies framed at the grass root level Fig. 1.

4. Green HRM and Sustainability:

The HR department of organizations possesses the capacity to build and maintain a culture which can immensely add upon the organizations' contribution to achieve a sustainable growth. The

organizational approaches with respect to going green denote a need for combining environment friendly practices with the human resource management practices. Although in the pioneering stage, the realization among the organizations regarding the

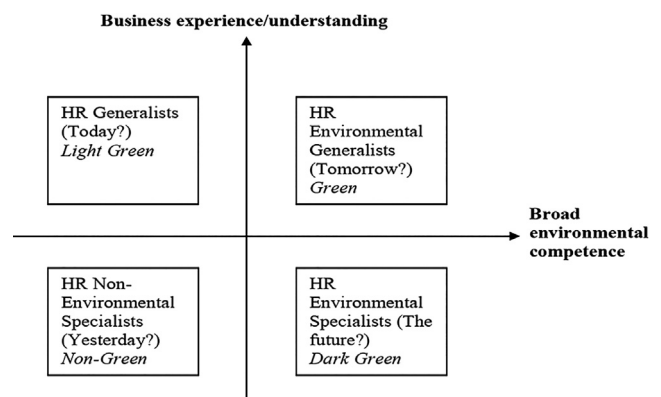


Fig. 1. Shades of Green- A typology of HR environmental executives.

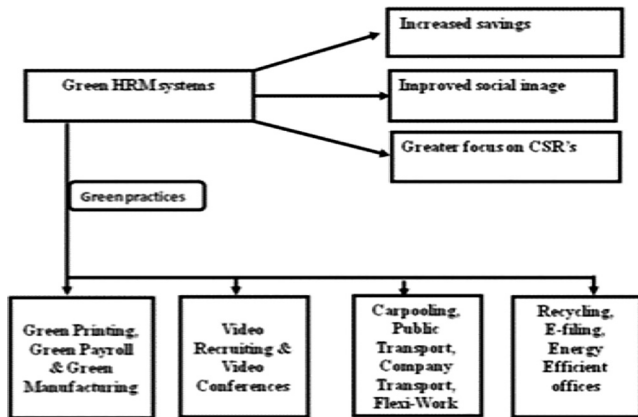


Fig. 2. Green Practices and Possible outcomes.

significant impact of sustainability upon the competitiveness, market standing and favourable propensity to entice and hold on to talent resources, is now in existence. In other words, organizations now have an inclination towards practices leading to sustainability, for securing the economic, societal and environmental objectives [15]. The model stated by Sathyapriya et al. (2013) [16] describes a model to attain sustainability through practicing Green HRM Fig. 2.

5. Conclusion

The present conceptual paper places immense focus on incorporating well thought green HR practices and procedures as one of the ingredients of attaining overall organizational development. The role of HR in bringing about the green-led approach in the organizations is commendable, which allows for the implementation of sustainable initiatives through employee commitment and contribution. The organizations of Indian origin should have an inclination towards securing higher Green ratings which on the other hand should be incorporated as a major component of defining the overall employer branding.

CRediT authorship contribution statement

Nimmi Agarwal: Conceptualization, Methodology. **Saumya Kumar:** Data curation, Writing - original draft. **Sandeep Kumar Anand:** Validation. **Nauma Rafique:** . **Mridul Dharwal:** Supervision.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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References

- [1] J. González-Benito, Ó. González-Benito, A review of determinant factors of environmental proactivity, *Business Strategy Environ.* 15 (2) (2006) 87–102.
- [2] A.M. Rugman, A. Verbeke, Corporate strategies and environmental regulations: An organizing framework, *Strateg. Manag. J.* 19 (4) (1998) 363–375.
- [3] H.M. Alshuwaikhat, I. Abubakar, An integrated approach to achieving campus sustainability: assessment of the current campus environmental management practices, *J. Cleaner Prod.* 16 (16) (2008) 1777–1785.
- [4] S.S.P. Haden, J.D. Oyler, J.H. Humphreys, Historical, practical, and theoretical perspectives on green management: An exploratory analysis, *Manag. Decis.* 47 (7) (2009) 1041–1055.
- [5] O. Boiral, J.-F. Henri, D. Talbot, Modeling the impacts of corporate commitment on climate change, *Business Strategy and the Environment* 21 (8) (2012) 495–516.
- [6] M. Shaikh, Green HRM: A requirement of 21st century, *J. Res. Commerce Manage.* 1 (10) (2010) 122–127.
- [7] R.S. Prasad, Green HRM-partner in sustainable competitive growth, *Apeejay-J. Manage. Sci. Technol.* 1 (1) (2013) 15–18.
- [8] C.M. Mathapati, Green HRM: A strategic facet, *Tactful Manage. Res. J.* 2 (2) (2013) 1–6.
- [9] D.B. Zoogah, The dynamics of Green HRM behaviors: A cognitive social information processing approach, *German J. Human Res. Manage.* 25 (2) (2011) 117–139.
- [10] S. Benn, S.T.T. Teo, A. Martin, Employee participation and engagement in working for the environment, *Personnel Rev.* 44 (4) (2015) 492–510.
- [11] Rio Declaration on Environment and Development, 1992. United Nations Department of Economic and Social Affairs. Available online: http://www.unesco.org/education/pdf/RIO_E.PDF (accessed on 1 September 2018).
- [12] J.Y. Yong, M.-Y. Yusliza, O.O. Fawehinmi, Green human resource management: A systematic literature review from 2007 to 2019, *Benchmarking Int. J.* 27 (7) (2019) 2005–2027, <https://doi.org/10.1108/BIJ-12-2018-0438>.
- [13] P. Benevene, I. Buonomo, Green human resource management: An evidence-based systematic literature review, *Sustainability* 12 (15) (2020) 5974.
- [14] J. Haddock-Millar, C. Sanyal, M. Müller-Camen, Green human resource management: a comparative qualitative case study of a United States multinational corporation, *Int. J. Human Res. Manage.* 27 (2) (2016) 192–211.
- [15] H.W. Chesbrough, *Open innovation: The new imperative for creating and profiting from technology*, Harvard Business Press, 2003.
- [16] J. Sathyapriya, R. Kanimozhi, V. Adhilakshmi, Green HRM-Delivering high performance HR systems, *Int. J. Market. Human Res. Manage.* 4 (2) (2013) 19–25.

Further Reading

- [1] P. James, S. Stewart, The European environmental executive: technical specialist or corporate change agent? In *Greening people*, Routledge, 2017, pp. 143–161.