



Revisiting Current HR Roles to Promote "Green HRM" in the Engineering Industry Sector of Bangladesh: A Conceptual Mapping

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ABSTRACT

The concept of Green HRM is gaining popularity as organizations increasingly strive for sustainability. In contrast to conventional HRM, which generally emphasizes corporate objectives and operational requirements, Green HRM incorporates environmental sustainability into the framework. The key lies in integrating environmental principles into recruitment, training, performance evaluation, employee relations, and exit management. The study has reviewed the Resource-Based View and Stakeholder theories, and related scholarly publications in the domain of Green HRM to develop a conceptual mapping. Thereby it interviewed 30 persons responsible for HR functions of the Engineering Industry to identify current HR strategies and challenges associated with transition from traditional HRM to Green HRM. The results indicate that the sample industries are performing traditional HR functions although they are performing sustainable goals in isolation. Improper leadership approach, maintaining status quo, improper environment knowledge, improper innovation capability, traditional marketing and over profiting mentality are impacting implementation of Green HRM. To promote Green HRM, corporate-level strategy need to integrate Sustainable Performance Goals concerning the United Nations SDGs.

1. Introduction

The transition from conventional Human Resource Management (HRM) to Strategic Green Human Resource Management (Green HRM) has emerged as a prominent trend in organizational practices in recent years. In contrast to conventional HRM, which primarily concerns personnel management to attain operational and business objectives, Green HRM integrates environmental sustainability into the fundamental aspects of HR, including recruitment, training, performance management, and employee engagement [1]. Green HRM aims to cultivate an environmentally conscious workforce by integrating sustainability

concepts into all phases of the employee lifecycle, therefore harmonizing human resource practices with environmental objectives [2].

The increasing apprehension regarding climate change, loss of resources, and deterioration of the environment has exerted enormous pressure on organizations to embrace sustainable practices [3]. Governments, consumers, employees, and other stakeholders have growing expectations for firms to mitigate their environmental footprint more effectively [5]. This transition has forced organizations to surpass profit-oriented goals and integrate corporate social responsibility (CSR) and sustainability into their

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strategic vision [6]. The implementation of Green HRM enables organizations to include environmental sustainability into their activities effectively, guaranteeing adherence to environmental regulations and facilitating the attraction of environmentally aware personnel, enhancement of organizational reputation, and attainment of long-term sustainability [2]. The transition from conventional to strategic Green HRM signifies a major transformation in organizations' labor and environmental management practices [7]. Furthermore, it emphasizes the significance of HR strategically in promoting sustainability projects throughout the company [2]. To achieve a sustainable competitive advantage, enhance employee engagement, and support global sustainability objectives, organizations can implement Green HRM. By conceptual mapping the shift from standard HRM to Green HRM, organizations can gain a more comprehensive understanding of strategically synchronizing their human resource practices with environmental sustainability to achieve both commercial and ecological objectives [8]. Conventional human resource management (HRM) methods, although successful in meeting fundamental organizational and operational requirements, frequently do not prioritize environmental sustainability. Amidst increasing demands from regulatory authorities, stakeholders, and the general public to embrace more environment-friendly practices, organizations must include sustainability in their HR operations [7]. Green HRM refers to integrating environmental factors into many phases of HR operations, including recruitment, training, performance management, employee engagement, and exit management [1], [2]. This shift is essential for companies seeking to comply with regulatory standards, maximize their environmental impact, and bolster their brand image [9], [10], [11], [12], [13].

Bangladesh's engineering industry (listed in Appendix), including those publicly traded on the Dhaka Stock Exchange (DSE), increasingly emphasizes achieving sustainable performance. Numerous companies embrace environmentally sustainable practices motivated by legislative imperatives and market requirements. Primary focus areas are using environmentally friendly technologies, effective waste management systems, and energy-saving procedures. Business enterprises prioritize sustainability in their project designs, frequently integrating renewable energy sources like solar and wind. This realignment mitigates the ecological footprint and improves operational efficacy and cost efficiency. Moreover, numerous engineering companies actively participate in corporate social responsibility (CSR) initiatives that assist local communities and advocate for environmental conservation. The success of these companies on the DSE is a clear indication of the expanding interest of

investors in sustainable practices. Their influence is driving a significant shift in the engineering industry, as stakeholders increasingly prioritize supporting enterprises that align with global sustainability objectives. The engineering industry in Bangladesh is not just transforming, but it is being shaped by the influential decisions of these stakeholders, establishing itself as a frontrunner in sustainable development and making significant contributions to the country's economic progress.

Thus, this study aims to revisit present HR practices in the Engineering Industry Sector of Bangladesh to shift in the entry to exit Green HRM process. Gaining a comprehensive understanding of this shift will provide significant knowledge on how companies in the engineering sector can efficiently oversee their employees to achieve both commercial objectives and environmental goals, guaranteeing a sustainable future for both the organization and society.

2. Literature review on underpinning theories

2.1 Resource-based view (RBV)

The RBV is a strategic management construct that underscores the importance of a company's internal resources in attaining and maintaining a competitive advantage [14]. Contrary to the conventional perspective on strategic management, which emphasizes external market positioning and competition, the RBV contends that a company's "internal resources (such as skills, assets, capabilities, and knowledge)", which he referred to as 'unique', are crucial for achieving strategic advantage [14]. The RBV identified three fundamental principles: (i) Companies should give priority to resources such as patents, brand reputation, and proprietary Knowledge; (ii) Differences in performance are caused by variations in resources among firms; (iii) Companies should invest in resources that competitors cannot readily replicate [14]. The activities encompassed are "research and development, talent acquisition, and brand loyalty building", (iv) prioritizing the enhancement and utilization of internal resources, and refraining from simply responding to external market forces. The RBV proposed that the company redirect its strategic attention from "external competition" to "organic capabilities." He underscored that a company's success or ability to obtain a competitive edge relies on the "efficient management and exploitation of distinctive resources"[14].

Numerous academics have diligently contributed to the expansion of the RBV and facilitated its practical use. To achieve economic success, a corporation must prioritize its resources that are "valuable, rare, inimitable, and organized to capture value"[15]. Emphasizing the need to leverage distinctive resources to achieve a competitive

edge, a company's strategy should be based on its available resources and competencies [16], [17] and to sustain a competitive advantage in dynamic markets, it must consistently adjust and develop its resources [18]. Notwithstanding its impact on the company's strategic management, the RBV is not immune to criticism. Opposing views maintain that to remain competitive, companies must possess the ability to update and adjust their resources constantly [19]. Mere possession of valuable resources is inadequate to effectively address society's ever-changing and dynamic demands [19]. Although few authors [20], [21] criticized the RBV for neglecting "transaction costs and governance mechanisms," others emphasized that competitive advantage cannot be solely driven by "static resources" but rather by "knowledge-based capabilities and social communities" [22], [23]. Green HRM integrates eco-friendly techniques into HR operations, creating various benefits: by encouraging employees to engage in environmentally responsible actions, such as conserving energy or reducing trash, Green HRM can result in financial savings and improved operational effectiveness [24]. Furthermore, implementing Green HRM strategies enhances the company's reputation as a socially conscious entity, proving advantageous in the recruitment and retention of clients, investors, and highly skilled personnel [3]. Furthermore, implementing environmentally conscious practices frequently yields enhanced employee happiness and engagement, fostering increased productivity and innovation [25]. The prioritization of sustainability by a firm may engender a sense of motivation and pride among employees [26].

By cultivating a staff equipped with specialized green skills, such as expertise in sustainable technologies and eco-friendly product development, the company distinguishes itself in sectors that are progressively prioritizing sustainability. The presence of a well-ingrained culture of sustainability, cultivated through Green HRM, is uncommon and challenging for competitors to imitate [7], [27]. Green HRM promotes leadership approaches that give priority to sustainability. Enduring organizational processes produces leadership of this nature, posing challenges for competitors attempting to replicate this valuable asset [28], [29], [30]. Through the implementation of Green HRM, organizations can integrate sustainability into their human resources, generating exceptional, scarce, unique, and non-substitutable resources. These resources facilitate the achievement of sustainable competitive advantages, thereby allowing the company to distinguish itself in the market, strengthen its brand, optimize operational efficiencies, and recruit and retain environmentally aware employees.

2.2 The stakeholder theory

The Stakeholder Theory, proposed by Freeman in 1984 in his book "Strategic Management: A Stakeholder Approach," revolutionizes the conventional notion of company purpose and accountability [31]. Instead of prioritizing shareholder value, Freeman's theory posits that firms should generate value for all stakeholders, either directly or indirectly affecting the decisions and activities of the company. A stakeholder, as defined by the author, is any group or individual that can influence or is influenced by attaining the organization's goals [31]. This approach broadens the scope of enterprises to encompass not only shareholders but also employees, customers, suppliers, governments, local communities, and other pertinent stakeholders. The aforementioned strategy posits that failure to address the "needs of diverse stakeholder groups" and prioritizing just shareholders will lead to societal strife and instability.[31] The Stakeholder Theory incorporates ethical factors into corporate deliberations and posits that companies bear moral responsibilities for their decisions and activities, as they impact the capital providers and all stakeholders [31]. The author highlights the need to adopt a strategic approach to stakeholder management. They argue for proactively involving stakeholders and incorporating their interests into the company's strategy to reduce risks, establish stronger connections, and improve performance [31].

There is widespread scholarly backing for Freeman's Stakeholder Theory. Researchers in the field contend that firms have the potential to enhance their competitiveness by effectively tackling social and environmental issues [32]. Similarly, the "Triple Bottom Line" concept underscores the need for firms to balance the interests of several stakeholders to foster corporate responsibility [33]. Furthermore, the Stakeholder Theory has been streamlined by outlining the economic, legal, ethical, and charitable (CSR) obligations of corporate organizations [34]. Scholars amplified Stakeholder Theory by classifying it into three distinct aspects: (i) Descriptive correctness refers to the ability of firms to accurately characterize their functioning. (ii) Instrumental power concerns the ability of organizations to achieve their aims. (ii) Normative validity pertains to the ability of corporations to appraise their ethical commitments [35]. Supporters maintained that firms must guarantee the involvement of stakeholders in strategic planning to achieve long-term success [36]. The Stakeholder Theory is further extended by incorporating ethical and strategic aspects and arguing for its applicability in contemporary business operations [31]. Even with its widespread adoption, Stakeholder Theory has encountered criticism. Opposing views contended that the main obligation of firms is to optimize shareholder value, asserting that market mechanisms and government regulation should target societal needs [37]. Therefore, focusing more on stakeholder engagement

could lead to managers' ambiguity and diminish shareholders' accountability [38]. Detractors of Stakeholder Theory mostly highlight the potential negative impact on efficiency and shareholder value resulting from an excessive emphasis on stakeholder value.

Associated with Green HRM, Stakeholder Theory underscores the need for businesses to consider and resolve the requirements and concerns of diverse stakeholder groups, beyond only shareholders, to attain sustained success. The stakeholders may encompass personnel, consumers, communities, the environment, and regulators. Within the framework of Green HRM, strategies that advance environmental sustainability aim to meet the demands of many stakeholders by harmonizing corporate objectives with environmental and social obligations [7]. Green HRM strategies immediately enhance employee well-being by establishing a healthier, more sustainable, and engaging work environment. Consequently, this improves employee contentment, retention, and general welfare [7]. By advocating for eco-friendly workplace practices such as decreased chemical usage, improved air quality, and sustainable resource management, Green HRM enhances workplace health and safety, a primary focus for employees [39]. Green HRM activities such as sustainability training and eco-friendly policies (e.g., recycling programs and energy-efficient office designs) enhance employee involvement and synchronize their values with the strategic objectives of the organization [40], [41]. Green HRM advocates for practices like telecommuting, which mitigates pollution associated with transportation and improves the equilibrium between work and personal life, therefore promoting the general welfare of employees [13].

By integrating corporate practices with broader social and environmental objectives, Green HRM enables organizations to make a beneficial contribution to society. It embodies the principles of CSR and ethical business conduct [42]. Integrating sustainable practices into an organization's HR framework ensures that the firm's operations contribute to wider social objectives, such as the reduction of carbon footprints, support for environmental conservation, and promotion of ethical labor practices [13]. Implementing Green HRM enables organizations to train employees for employment in renewable energy, recycling, and other sustainable sectors. This, in turn, facilitates the growth of the green economy and contributes to general objectives such as job generation and economic sustainability [43]. Green human resource management strategies frequently promote employee engagement in community sustainability activities such as clean-up programs and environmental education, enhancing the relationship between the firm and its local community [44]. The primary objective of Green HRM is to mitigate the

ecological consequences of organizational operations, therefore enabling enterprises to realise their environmental obligations and make valuable contributions towards global sustainability objectives [13], [45]. Green HRM promotes the sustainable utilization of resources, including water, energy, and materials. These practices help to decrease the collective carbon emissions of the organization and bring the organization in line with worldwide sustainability efforts such as the United Nations' Sustainable Development Goals (SDGs) [2], [7], [27], [46]. The implementation of Green HRM indirectly impacts customers by promoting the alignment of employees with the sustainability mandate of the firm, thus facilitating the creation of environmentally friendly products and services. Customers are progressively attracted to firms that exhibit environmental stewardship. Green HRM enhances the company's environmental credentials, therefore improving its reputation and increasing its appeal to environmentally sensitive customers [2], [7], [47]. Employees who receive training and motivation through Green HRM practices are more inclined to engage in innovation and develop products or services that are eco-friendly, thus, meeting the rising consumer demand for sustainable alternatives [2], [13].

Although stakeholder theory extends its focus beyond shareholders, Green HRM offers investors substantial benefits by seamlessly integrating sustainability with long-term profitability. The implementation of Green HRM cultivates a distinctive workforce that possesses the ability to promote long-term sustainability, therefore providing the organization with a competitive advantage in sectors that prioritize environmental integrity [2], [27]. Furthermore, Green HRM enables organizations to conform to government rules and regulations concerning environmental sustainability and labor standards. Organizations safeguard their compliance with environmental requirements, such as waste management and energy consumption norms, imposed by governments and regulatory agencies by encouraging green behaviors among their employees [7], [2], [48]. Reviewing the RBV and Stakeholder theories and related scholarly publications in the domain of Green HRM, the following conceptual mapping (entry-to-exit process) is developed (Figure 1). The Figure 1 also delineates potential outcomes if the company shift from traditional to the comprehensive Green HRM functions.

From the above review it is clear that the Green HRM practices is advocated and valued by the scholarly literature for the sustainable performance of industries. Most of the studies identified what activities need to perform for the recruitment, training, performance management, employee relation, and exit management. These researches focuses on the sustainable outcomes that the business can avail if they transform, however,

these researches fails to recognize contextual and industry specific challenges to avail those overcomes.

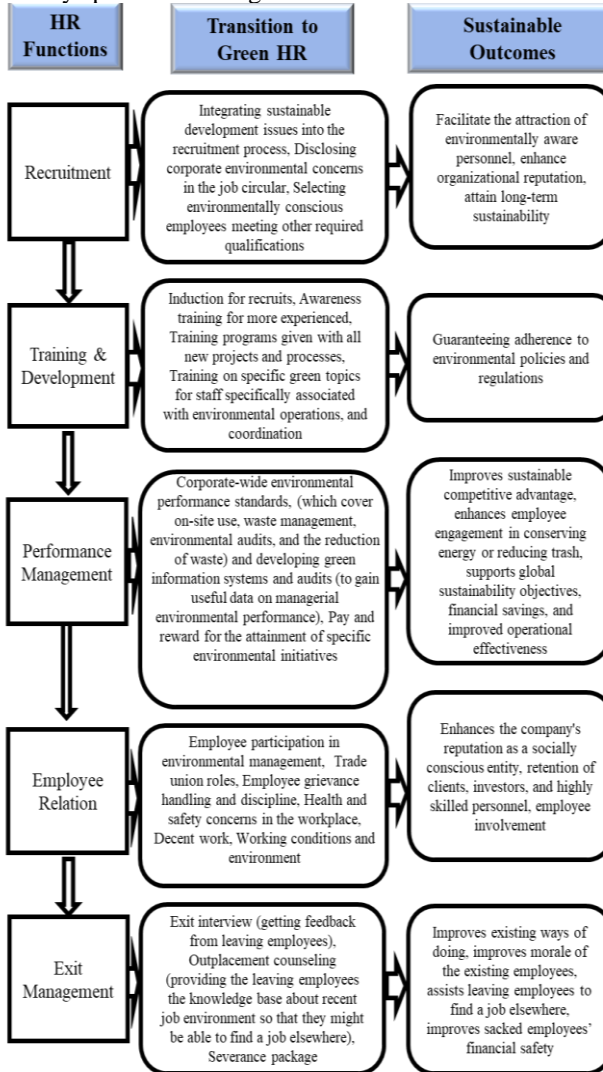


Figure 1: Outcomes of integrating sustainability into HR functions
Source: Developed on the basis of Literature Review

3. Methodology

The study has evaluated the existing human resource management practices of the engineering industry sectors listed in Bangladesh's Dhaka Stock Exchange Limited. It has developed a conceptual mapping for green HRM (entry to exit process) so that the industry sector can reap the benefits of sustainable business performance. The study has reviewed the Resource-Based View and Stakeholder theories, and related scholarly publications in the domain of Green HRM to develop the conceptual mapping. Thereafter, it has conducted in-depth interviews with the 30 persons responsible for HR functions of the sample industries (shown in appendix) to collect primary data using an open-ended questionnaire, which was based on the

conceptual mapping developed in Figure 1. Due to the restriction of recording interviews, the researchers were followed note taking strategies. After the interviews, necessary steps were taken to code the responses through alphabetical order. As the interview process has limitations, the researcher has taken necessary steps (e.g., confirm respondents through the phone call, or personal visit) to triangulate data and verify results. The ethical issues were in place while conducting the study to reduce harm to participants, invasion of privacy, and personal bias. The research has also used information from secondary sources, such as the annual reports of the selected industry sector, to understand its current HR practices. Moreover, it has mainly used data from scholarly publishers to structure the reliable knowledge base in green HRM. Moreover, the study reviewed the Resource-based View and Stakeholder Theory as underpinning theories that shape the research foundation.

4. Results and discussion

4.1 HR in the traditional management

The study found that the industries that fall in the engineering sector have the traditional management system (figure 2). In this system, they perform management processes (planning, decision making, organizing, leading, coordinating, motivating and controlling) to optimize organizational resources (such as human, physical, financial, market, and information) to attain their goals efficiently and effectively. The engineering sector has defined its goals to maximize profit and wealth and integrate its social goals into its operations and practices, mainly in CSR. These firms are subject to attaining their goals by focusing on the wise use of resources to achieve the best cost and prioritizing customer needs and preferences to succeed. This sector identified its human resources as skilled, dedicated, and hardworking individuals.

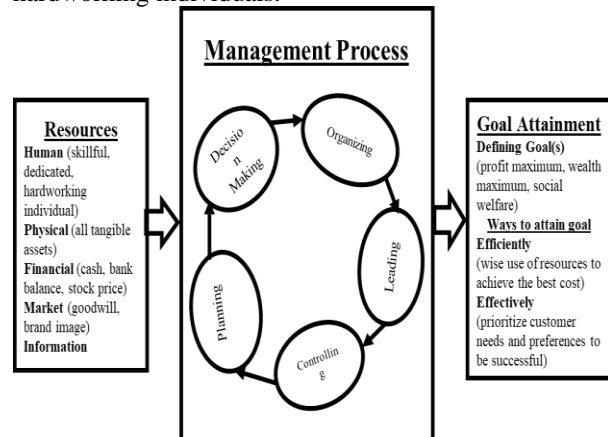


Figure 2: Traditional Management Process

The organizational structure observed in the engineering sector is shown in Figure 3, which reveals that the conventional HRM primarily concerns the management of personnel to attain operational and business objectives. The personnel management functions mainly include aiding top management in recruitment, training, performance appraisal, and management. In this sector, the HR department mainly performs coordinating as well as staff functions between top management and other departments to carry out traditional HR practices.

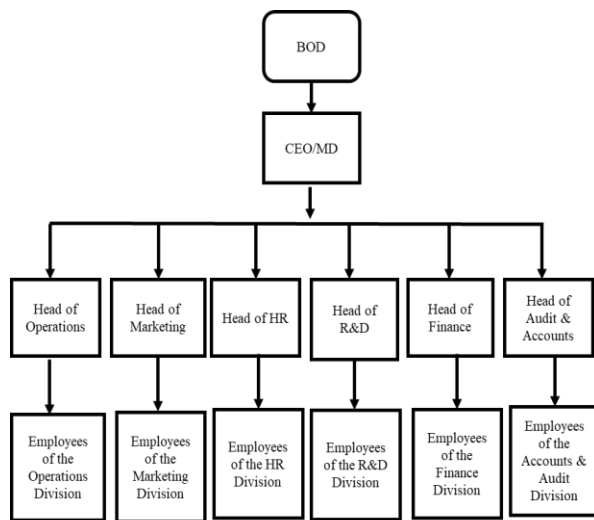


Figure 3: Traditional Management Structure

4.2 Transition to Green HRM

As discussed in the underpinning theories and literature review section, Green HRM integrates environmental sustainability into the fundamental aspects of HR, including recruitment, training, performance management, and employee engagement to cultivate an environmentally conscious workforce by integrating sustainability concepts into all phases of the employee lifecycle. The transition from conventional to strategic Green HRM signifies a major transformation in organizations' employee and environmental management practices [7]. Furthermore, it emphasizes the significance of HR strategically in promoting sustainability projects throughout the company [2]. To achieve a sustainable competitive advantage, enhance employee engagement, and support global sustainability objectives, organizations can implement Green HRM. By conceptual mapping (Figure 1) the shift from standard HRM to Green HRM, organizations can better understand how to strategically synchronize their human resource practices with environmental sustainability to achieve both commercial and ecological objectives. Conventional HRM methods, although successful in meeting fundamental organizational and operational requirements, frequently need to prioritize

environmental sustainability. Amidst increasing demands from regulatory authorities, stakeholders, and the general public to embrace more environmentally friendly practices, organizations must include sustainability in their HR operations [7]. Thus, the study proposed restructuring the organizational structure (Figure 4) to embrace Green HRM strategically (according to Figure 1). In this structure, it is expected that in addition to the HR department, each manager will perform dual roles: (i) general and administrative roles for his/her respective department and, at the same time, (ii) Green HR roles for the employees working under him/her. In this process, every manager under his/her employees are working will play dual roles in addition to the HR department. It will enable managers of each department to take instant action against those who violate sustainability norms. It will also empower practicing departments to embark on continuous improvements to attain sustainable goals.

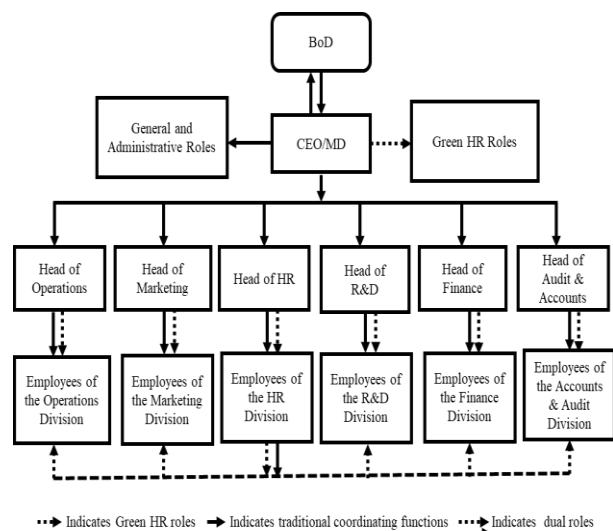


Figure 4: Alignment of Green HR Roles with Strategic HR Roles in Organizational Structure

In this case, Green HRM must come from the corporate-level strategy set by the Board of Directors (BoD). The BoD will revise its corporate-level strategy to integrate Corporate Sustainable Performance Goals concerning the United Nations SDGs (Figure 5).

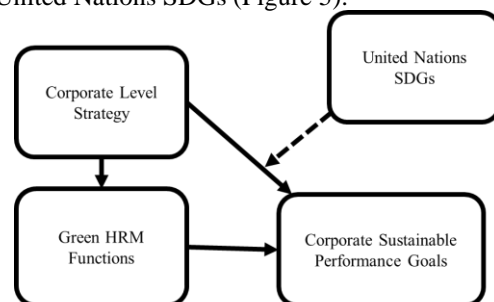


Figure 5: Strategic Orientation of Green HRM

Figure 1 (shown in the literature review section) represents sustainable outcomes that Bangladesh's engineering sector will enjoy if it aligns its HR functions with sustainable performance goals. By conceptually mapping the shift from standard HRM to Green HRM, organizations can gain a more comprehensive understanding of how to strategically synchronize their human resource practices with environmental sustainability to achieve both commercial and ecological objectives.

However, the outcomes expected to be generated from the transformation of current HR functions and roles to Green HRM will be affected in Bangladesh's engineering sector due to the context-sensitive challenges shown in Figure 6, followed by discussions.

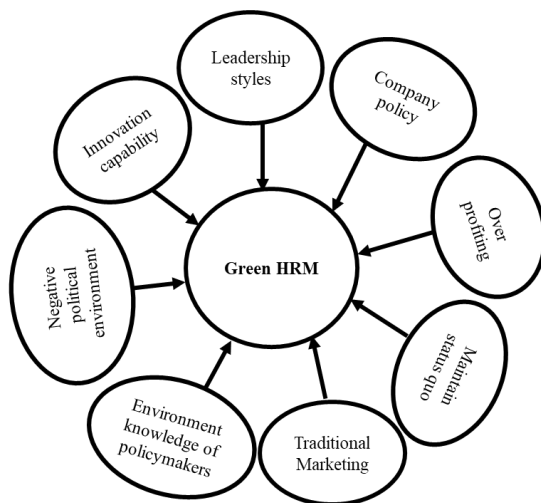


Figure 6: Challenges of Green HRM

First, the interviews with key persons indicate that this sector also follows the traditional leadership approach. Usually, managers are engaged in 'in-company politics' and segregate employees into in-groups and out-groups. The in-group employees are those with whom the managers keep trustworthy and informal relations in many cases and get priority to avail the desired benefits, leading a majority of the employees who fall in the out-group dissatisfied. In this case, this sector must change its leadership style to a transformative style focusing on equality, justice, fairness, and transparency at all levels. Second, company policy focuses on social goals through philanthropy (e.g., donating to the Prime Minister's relief fund, sponsoring sports, cultural activities, and education programs). These activities are welcomed, but at the same time, this sector must transform its traditional HR functions into strategic Green HRM functions to achieve long-term business, social, and environmental value. Third, innovation capacity also affects the adoption of Green HRM in this sector. Adherence to the latest technological changes is a major challenge. Fourth, 'maintaining the status quo' of the employees and

managers also deters this sector from adopting new technology because of the fear of losing jobs to many. Proper change management strategies help this sector stay up to date with technology. Fifth, the profiting mentality or quick profit mentality also affects sustainability. Sixth, like other companies in the developed world, the engineering companies in Bangladesh are also compelled to implement Green initiatives due to competitive pressures, customer demand, and public perception, all of which are shaped by the tactical green marketing of these companies. By doing so, these businesses strengthen their reputation, become more competitive, and follow larger cultural trends toward sustainability. Although tactical green marketing helps these businesses become profitable, it has also unfavorable consequences by encouraging greenwashing that is not very green, putting pressure on businesses to make quick decisions, instilling fear of the public's reaction, and causing a disconnect between their messaging and their actual business practices. The engineering industry sector may take some time to implement true green HRM practices. Seventh, a lack of understanding of the environment might make it more difficult for engineering sector organizations to implement Green HRM successfully. This is because it can result in greenwashing, inefficient policies, low staff involvement, and lost possibilities for innovation. Companies must have a deeper awareness of environmental issues and be dedicated to incorporating sustainability into HR procedures in a meaningful, sector-specific manner if they are to fully benefit from Green HRM. Lastly, political unrest prevents engineering firms from implementing Green HRM by causing uncertainty in the regulatory environment and upsetting long-term planning. Fearing policy and environmental regulation reversals, corporations may be reluctant to fully commit to sustainable HR practices. Green initiatives frequently suffer from instability as resources are redirected towards immediate survival. Adoption of comprehensive Green HRM initiatives may be hampered by this uncertainty, which also lowers investment in sustainable practices, employee involvement, and green training.

5. Conclusions

It is crucial to transition from traditional to Strategic Green HRM to tackle global environmental sustainability, particularly in developing countries such as Bangladesh. This study demonstrates that implementing Green HRM enables organizations to comply with legal obligations and satisfy stakeholders' expectations regarding environmental issues. By harmonizing human resources activities, such as recruiting, training, and performance management, with environmental objectives, firms can establish a staff that

promotes sustainability and minimizes environmental harm. Integrating sustainability into HR processes improves business image and attracts and maintains environmentally aware personnel, increasing workforce morale and involvement. The RBV emphasizes the strategic value of human capital, and Stakeholder Theory focuses on achieving stakeholder expectations for environmental responsibility. Both theories aligned with Green HRM empower organizations to simultaneously attain commercial success and environmental objectives, augmenting their competitiveness and making valuable contributions towards global sustainability goals.

6. Theoretical Implication

This paper investigates the theoretical consequences of shifting from traditional to Strategic Green HRM, specifically in developing nations such as Bangladesh. The integration of environmental sustainability into HR practices expands known ideas such as the Resource-Based View and Stakeholder Theory. Conventionally, the RBV highlights the significance of distinct organizational resources, such as human capital and talents, in gaining a competitive edge. This work enhances the RBV by expanding the concept of sustainability as a strategic asset. The proposition is that by integrating human resources with environmental principles, it is possible to stimulate eco-innovation and enhance long-term competitiveness. Green HRM approaches, such as sustainable personnel selection, training, and performance reviews, optimize human capital to enhance operational efficiency and promote environmental stewardship. This paper expands upon Stakeholder Theory by emphasizing environmental sustainability as a crucial concern for stakeholders, in addition to achieving their varied expectations. Green HRM integrates sustainability into HR practices to help organizations meet those increasing demands, improving their reputation and fortifying connections with stakeholders. In emerging economies, this adaptation is especially pertinent as global sustainability trends substantially impact stakeholder advocacy. In brief, the research contributes to the theoretical comprehension of Green HRM by demonstrating its integration and expansion of RBV and Stakeholder Theory, thereby providing novel perspectives on attaining ecological and organizational goals.

7. Policy Implication

Developing countries like Bangladesh must prioritize the adoption of Strategic Green HRM, as it provides significant advantages in terms of both the environment and the economy. Salient policy factors encompass the following agendas:

Regulatory bodies should integrate environmental criteria into human resources procedures, including

requiring sustainability training, giving priority to environmentally conscious recruitment, and incentivizing companies that harmonize human resources policies with environmental objectives. This integration strategically positions HR as a pivotal participant in sustainability. In addition, Governments can encourage the use of Green HRM by offering tax incentives, subsidies, or acknowledgment to firms that include sustainability in their HR operations. Potential measures could include promoting environment-friendly commuting and minimizing staff carbon footprints. It can also enhance the implementation of Green HRM by fostering collaborations between the public and private sectors. Regulatory bodies have the authority to establish environmental performance standards for human resources activities and provide financial or technical assistance for sustainability training. The policymakers can also allocate resources to HR professional training and implement statewide initiatives to emphasize the significance of Green HRM practice. This will contribute to resolving resource and knowledge deficiencies in Bangladesh. They can harmonize their Green HRM policies with worldwide benchmarks such as the Paris Agreement and Sustainable Development Goals to improve global excellence. Government policy planners should provide financial aid for sustainable practices and green technology training to foster eco-innovation and attain long-term economic and environmental objectives. Finally, through the incorporation of Green HRM into national policy, Bangladesh can effectively harmonize sustainability with economic expansion, paving the way for future prosperity.

8. Limitations and Avenues for Further Investigation

Despite the useful insights this study offers about the shift from conventional to Green HRM, there are certain limitations. The study is primarily theoretical and grounded on conceptual frameworks, including the Resource-Based view, and Stakeholder Theory. However, these frameworks may need to comprehensively encompass the intricacies of implementing Green HRM in real-world scenarios. Validation of these theories in real-world organizational situations, especially in developing economies such as Bangladesh, requires empirical investigation. Furthermore, this study mainly concentrates on the human resources operations inside firms, potentially neglecting other crucial elements such as organizational culture, and external pressures that could greatly impact the implementation of Green HRM. Further investigation should examine these aspects to get a more thorough comprehension of the dynamics of Green HRM. The scope of this study is confined to emerging economies, so the results cannot be generalized to

developed economies. Future research should investigate cross-country comparisons to elucidate the influence of cultural, regulatory, and economic disparities on the adoption of Green HRM. Moreover, comprehensive longitudinal studies might offer a more profound understanding of the enduring impacts of Green HRM on sustainability and corporate performance.

References

- [1] M. M. Uddin and Md. R. Islam, "Green HRM: Goal Attainment through Environmental Sustainability," 2015.
- [2] D. W. S. Renwick, T. Redman, and S. Maguire, "Green Human Resource Management: A Review and Research Agenda*," *International Journal of Management Reviews*, vol. 15, no. 1, pp. 1–14, Jan. 2013.
- [3] S. E. Jackson and J. Seo, "The greening of strategic HRM scholarship," *Organisation Management Journal*, vol. 7, no. 4, pp. 278–290, 2010.
- [4] M. A. Delmas and M. W. Toffel, "Organizational responses to environmental demands: Opening the black box," Oct. 2008.
- [5] M. E. Porter and M. R. Kramer, "Strategy & Society: The Link Between Competitive Advantage and Corporate Social Responsibility," 2006. [Online]. Available: www.hbrreprints.org
- [6] C. J. C. Jabbour and A. B. L. De Sousa Jabbour, "Green Human Resource Management and Green Supply Chain Management: Linking two emerging agendas," *J Clean Prod*, vol. 112, pp. 1824–1833, Jan. 2016.
- [7] R. Kramar, "Beyond strategic human resource management: Is sustainable human resource management the next approach?," *International Journal of Human Resource Management*, vol. 25, no. 8, pp. 1069–1089, Apr. 2014.
- [8] R. Schoemaker, "Green Human Resource Management: a general review." Bachelor thesis, Human Resource Studies, Tilburg University,
- [9] M. Usman and N. Mat, "Green Human Resource Management: Implication Toward Environmental Performance in Developing Countries," *International Journal of Economics, Management and Accounting*, vol. 29, no. 1, Jun. 2021.
- [10] A. Rodríguez-Peña, "Corporate entrepreneurship and firm performance relationship under the moderating effect of environmental dynamism: Replication and extension analysis," *Journal of International Entrepreneurship*, vol. 21, no. 4, pp. 550–585, Dec. 2023.
- [11] M. U. Shahzad, "Green Human Resource Management and Its Strategic Importance In The Modern Era: A Review And Research Framework". *IJEED*, vol.3, no. 4, Dec. 2020.
- [12] M. Miah, G. Szabó-Szentgróti, and V. Walter, "A systematic literature review on green human resource management (GHRM): an organizational sustainability perspective," 2024, *Cogent OA*.
- [13] B. Wernerfelt, "A Resource-based View of the Firm," *Strategic Management Journal*, vol. 5, 171-180, 1984.
- [14] J. Barney. Firm Resources and Sustained Competitive Advantage, vol. 17, no. 1, Mar. 1991.
- [15] D. J. Collis and C. A. Montgomery, "Competing on Resources: Strategies in the 1990s," *Harvard Business Review*, vol. 73, no. 4, 118–128, Jun–Aug. 1995.
- [16] K. M. Eisenhardt and J. A. Martin, "Dynamic Capabilities: What Are They?," *Strategic Management Journal*, Vol. 21, No. 10/11 SPEC ISS, pp. 1105-1121, Oct. - Nov. 2000.
- [17] C. E. Helfat and M. A. Peteraf, "The dynamic resource-based view: Capability lifecycles," *Strategic Management Journal*, vol. 24, no. 10 SPEC ISS., pp. 997–1010, Oct. 2003.
- [18] S. G. Winter, "Understanding dynamic capabilities," *Strategic Management Journal*, vol. 24, no. 10 SPEC ISS., pp. 991–995, Oct. 2003.
- [19] R. H. Coase, "The Nature of the Firm." *Economica*, New Series, Vol. 4, No. 16, pp. 386-405, Nov. 1937.
- [20] W. G. . Ouchi, *Theory Z: how American business can meet the Japanese challenge*. Addison-Wesley, 1987.
- [21] B. Kogut and U. Zander, "Knowledge of the firm. Combinative capabilities, and the replication of technology," *Knowledge in Organizations*, Taylor and Francis, pp. 17–36, 2009.
- [22] R. M. Grant, "Toward a knowledge-based theory of the firm," *Strategic Management Journal*, vol. 17, no. SUPPL. WINTER, pp. 109–122, 1996.
- [23] C. Sathya, J. Jayakrishnan, and R. Manivannan, "Green HRM Practices –A Review of Literature" *International Journal of Research and Analytical Reviews*, vol. 5, no. 4, pp 284-286, Oct.-Dec. 2018.
- [24] A. Mohammad Ashraful, X. Niu, and N. Rounok, "Effect of green human resource management (GHRM) overall on organization's environmental performance," *International Journal of Research in Business and Social Science (2147- 4478)*, vol. 10, no. 4, pp. 99–116, Jun. 2021.
- [25] P. Trivellas, A. Rafailidis, P. Polychroniou, and P. Dekoulou, "Corporate social responsibility (CSR) and its internal consequences on job performance: The influence of corporate ethical values," *International Journal of Quality and Service Sciences*, vol. 11, no. 2, pp. 265–282, Jun. 2019.
- [26] J. Dumont, J. Shen, and X. Deng, "Effects of Green HRM Practices on Employee Workplace Green Behavior: The Role of Psychological Green Climate and Employee Green Values," *Hum Resour Manage*, vol. 56, no. 4, pp. 613–627, Jul. 2017.
- [27] S. Ren, F. L. Cooke, G. K. Stahl, D. Fan, and A. R. Timming, "Advancing the sustainability agenda through strategic human resource management: Insights and suggestions for future research," *Hum Resour Manage*, vol. 62, no. 3, pp. 251–265, May 2023.
- [28] R. Hameed, N. Rehman, S. Tufail, and M. Kiziloglu, "Green human resource management and environmental knowledge: A moderated mediation model to endorse green CSR," *Front Environ Sci*, vol. 11, 2023.
- [29] C. R. Carter and D. S. Rogers, "A framework of sustainable supply chain management: Moving toward new theory," 2008.

- [30] R. E. E. Freeman and J. McVea, "A Stakeholder Approach to Strategic Management," *SSRN Electronic Journal*, Jul. 2005.
- [31] M. E. Porter and M. R. Kramer, "The Big idea Creating Shared Value how to reinvent capitalism-and unleash a wave of innovation and growth," *Harvard Business Review*, vol. 89, no. 1-2, pp.62-77, Jan.-Feb. 2011. HBR.ORG.
- [32] J. Elkington, "Partnerships from cannibals with forks: The triple bottom line of 21st-century business," *Environmental Quality Management*, vol. 8, no. 1, pp. 37–51, 1998.
- [33] A. B. Carroll, "The pyramid of corporate social responsibility: Toward the moral management of organizational stakeholders," *Bus Horiz*, vol. 34, no. 4, pp. 39–48, 1991.
- [34] T. Donaldson and L. E. Preston, "The Stakeholder Theory of the Corporation: Concepts, Evidence, and Implications" *The Academy of Management Review*, vol. 20, no. 1, pp. 65-91, Jan. 1995.
- [35] L. Author and S. A. Waddock, "The Corporate Social Performance-Financial Performance," *Strategic Management Journal*, vol. 18, no. 4, pp. 303-319, 1997.
- [36] M. Friedman, "The Social Responsibility of Business Is to Increase Its Profits," *The New Work Times*, Sept. 13, 1970.
- [37] M. C. Jensen and W. H. Meckling, "Theory of the firm: Managerial behavior, agency costs and ownership structure," *Journal of Financial Economics*, vol. 3, no. 4, pp. 305-360, Oct. 1976,
- [38] M. Z. Iqbal, S. Akbar, and P. Budhwar, "Effectiveness of Performance Appraisal: An Integrated Framework," *International Journal of Management Reviews*, vol. 17, no. 4, pp. 510–533, Oct. 2015.
- [39] R. Hameed, N. Rehman, S. Tufail, and M. Kiziloglu, "Green human resource management and environmental knowledge: A moderated mediation model to endorse green CSR," *Front Environ Sci*, vol. 11, 2023.
- [40] N. K. H. Tran, "Customer pressure and creating green innovation: The role of green thinking and green creativity," *Sustainable Futures*, vol. 7, Jun. 2024.
- [41] A. B. Carroll, "Corporate social responsibility: The centerpiece of competing and complementary frameworks," *Organ Dyn*, vol. 44, no. 2, pp. 87–96, Apr. 2015.
- [42] M. Chapol Ali, K. M. Anwarul Islam, S.-J. Chung, N. M. Zayed, and M. Afrin, "A study of Green Human Resources Management and Green Creativity for Human Resources Professionals," *International Journal of Business and Management Future*, vol. 4, no. 2, 2020.
- [43] C. A. Ramus and U. Steger, "The Roles of Supervisory Support Behaviors and Environmental Policy in Employee 'Eco incentives' at Leading-edge European Companies," *Academy of Management Journal*, vol. 43, no. 4, pp. 605-626, Aug. 2000.
- [44] C. J. C. Jabbour and F. C. A. Santos, "The central role of human resource management in the search for sustainable organizations," *International Journal of Human Resource Management*, vol. 19, no. 12, pp. 2133–2154, 2008.
- [45] A. P. Hejnowicz and M. A. Rudd, "The value landscape in ecosystem services: Value, value wherefore art thou value?" *Sustainability*, vol.9, no. 5, May 19, 2017, MDPI.
- [46] S. Kang and W. M. Hur, "Investigating the Antecedents of Green Brand Equity: A Sustainable Development Perspective," *Corp Soc Responsib Environ Manag*, vol. 19, no. 5, pp. 306–316, Sep. 2012.
- [47] S. Ahmad, "Green Human Resource Management: Policies and practices," Dec. 31, 2015, *Cogent OA*.
- [48] P. J. Dimaggio and W. W. Powell, "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields," *American Sociological Review*, vol. 48, no. 2, pp. 147-160, Apr. 1983.
- [49] O. E. Williamson, "The Economics of Organization: The Transaction Cost Approach'." [Online]. Available: <http://www.journals.uchicago.edu/t-and-c>
- [50] M. T. Hannan and J. Freeman, "The Population Ecology of Organizations," *AJS*, vol. 187, no. 3, pp. 548-577, 1981.
- [51] S. Ren, G. Tang, and S. E. Jackson, "Green human resource management research in emergence: A review and future directions," *Asia Pacific Journal of Management*, vol. 35, no. 3, pp. 769–803, Sep. 2018.

Appendix

List of DSE-listed Engineering Sector Companies

Aftab Automobiles Limited	Monno Agro & General Machinery Limited
Anwar Galvanizing Ltd.	Nahee Aluminum Composite Panel Ltd.
Appollo Ispat Complex Limited	Atlas Bangladesh Ltd.
Aziz Pipes Ltd.	Navana CNG Limited
Bangladesh Building Systems PLC.	National Polymer Industries PLC.
BBS Cables PLC.	National Tubes Limited
Bangladesh Autocars Ltd.	Olympic Accessories Limited
Bangladesh Lamps Limited	Oimex Electrode Limited
Bd.Thai Aluminium Ltd.	Quasem Industries Ltd.
Bengal Windsor Thermoplastics PLC.	Rangpur Foundry Ltd.
Bangladesh Steel Re-Rolling Mills Limited	Renwick Jaineswar & Co (Bd) Ltd.
BSRM Steels Limited	Ratanpur Steel Re-Rolling Mills Limited
Coppertech Industries Limited	Runner Automobiles PLC
Deshbandhu Polymer Limited	S. Alam Cold Rolled Steels Ltd.
Dominage Steel Building Systems Limited	Shurwid Industries Limited
Eastern Cables Ltd.	Singer Bangladesh Limited
Golden Son Ltd.	S. S. Steel Limited
GPH Ispat Ltd.	Walton Hi-Tech Industries PLC
IFAD Autos PLC.	Western Marine Shipyard Limited
Kay & Que (Bangladesh) Ltd.	Yeakin Polymer Limited
KDS Accessories Limited	
Mir Akhter Hossain Limited	