



Green Practices of Human Resource Department: A Tool for Sustainability and Competitive Advantages

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ABSTRACT

This study analyzes how Green Human Resource Management (GHRM) practices affect sustainability and competitiveness in Bangladeshi multinational firms. Due to industrialization and globalization, eco-friendly measures are needed to safeguard the environment and human capital. The main goal of this study is to determine whether there is a link between "Green HRM" practices and "Sustainable Competitive Advantages" among Bangladesh's multinational companies. The study examines the benefits of digital technology in GHRM recruitment, training, performance evaluation, and remuneration. According to a comprehensive literature analysis, GHRM enhances operational efficiency, teamwork, organizational climate, and cost efficiency. Organizational sustainability and employee development require the integration of environmental principles into HRM tasks such as recruitment, performance evaluation, and training. GHRM's competitive edge, sustainability, relevance in multinational firms in Bangladesh, and potential for sustainability and competitive advantage are the goals. The study's theoretical framework posits that GHRM practices enhance sustainability and competitiveness, and that sustainability practices may mitigate the relationship between competitive advantage and GHRM. Research philosophy blends positivism and interpretivism to maintain scientific rigor and impartiality while admitting subjective interpretations. Gender-proportional data are collected from Bangladeshi employees of multinational corporations. The questions cover green HRM, sustainability, and competitive advantages. This article emphasizes the importance of GHRM in achieving sustainability and competitive advantages for multinational firms in Bangladesh, and seeks to inform future research and the implementation of green HRM.

Keywords: Bangladesh, Competitive Advantage, Green HRM, Sustainability.

INTRODUCTION

The accelerating pace of globalization and industrialization has profoundly reshaped business contexts, technological innovation, and production systems worldwide. As much as industrialization sustains many economic gains, it also causes immense ecological devastation, posing grave risks to the environment and human welfare (Renwick et al., 2013). Consequently, organizations, irrespective of sector, are under mounting pressure to seek competitive advantages that align with long-term environmental sustainability (Jabbour & Jabbour, 2016).

Here, Human Resource Management (HRM) plays a critical role in developing organizational competitiveness and sustainability. Incorporating environmental issues into HR activities, widely known as Green Human Resource Management (Green HRM or GHRM), has become a strategic necessity for contemporary organizations (Tang et al., 2018). GHRM is an environmentally friendly extension of conventional HRM practices like recruitment, training, performance appraisal, and employee benefits. These activities not only support environmental responsibility but also organizational efficiency and employees' engagement (Yong et al., 2020).

The evolution of Green Human Resource Management (GHRM) is closely linked to technological advancements, which facilitate the digitization of human resource processes and the accessibility and efficiency of green practices. Internally driven initiatives, including environmentally conscious recruitment, green training and development, and sustainable performance management, are increasingly common as organizations strive to extend their human resource management approaches to support overarching sustainability goals (Singh et al., 2020). Consequently, GHRM is increasingly regarded as a strategic resource capable of generating sustainable competitive gains by fostering a culture of environmental stewardship and continuous improvement (Nawangarsi & Sutawidjaya, 2019). This research explores the linkage between Green HRM practices, sustainability initiatives, and competitive advantages based on the employees' perceptions in multinational corporations (MNCs) in Bangladesh. Taking a dual philosophical position—positivism alongside interpretivism—this study seeks to encompass both the measurable correlations and the rich, subjective meanings of GHRM application in organizational contexts. The positivist philosophical position allows for the empirical testing of Green HRM hypotheses regarding its influence on sustainability and competitiveness using statistical methods of analysis (Saunders et al., 2019). The interpretivist philosophical position, on the other hand, allows for an in-depth inquiry into

employees' individual experiences, values, and meanings, recognizing that human behavior and perceptions are at the core of the successful implementation of sustainability-driven HR practices (Creswell & Poth, 2018).

Using this mixed-methods design, the research seeks to provide a holistic and multifaceted explanation of GHRM's role in facilitating sustainable competitive advantages for Bangladeshi MNCs. The emphasis is placed on assessing both the current practice and the digitalization potential of GHRM throughout the entire HRM cycle, i.e., green hiring, green training and development, green performance appraisal, and green employee benefits. Finally, this research adds to the cumulative body of knowledge on sustainable HRM and offers actionable insights for organizations seeking to integrate their HR strategy with environmental and competitive goals.

LITERATURE REVIEW

Green HRM and Sustainable Competitive Advantages:

According to Zoogah (2011) and Marhatta and Adhikari (2013), GHRM pertains to implementing HRM policies that facilitate the efficient and sustainable utilization of resources in business establishments. Furthermore, it encourages environmentally conscious practices within organizations. GHRM, or Green Human Resource Management, involves utilizing HRM practices to boost environmentally friendly practices and encourage employees to be more aware of and committed to environmental awareness and sustainability issues. This was noted by Mandip in 2012.

According to previous research (Jackson et al., 2012; Jabbour et al., 2010; Jabbour et al., 2012; Hart, 1997), the functioning of green practices can positively impact a company's operational performance, teamwork, organizational culture, and cost reduction. According to Boselie et al. (2001), aligning HR practices with organizational norms and company objectives is imperative for enhancing organizational performance. Considering this, scholars emphasize incorporating environmental practices as a primary goal of organizational operations, necessitating the identification of such practices through human resource management strategies (Jackson et al., 2011; Daily & Hung, 2001; Sarkis et al., 2010). Green HRM is a strategic approach that seeks to align HRM processes with an organization's sustainability objectives. This may involve implementing rigorous hiring tactics (Grolleau et al., 2012), incorporating environmental awareness and execution into performance appraisal and reward systems (Jabbour et al., 2012), and offering training and empowerment

programmers (Unnikrishnan & Hedge, 2007) to foster the development of new skills and competencies among employees of environmentally conscious firms (Cherian & Jacob, 2012).

Through their investigations, researchers are seeking to highlight the value of green human resource management in gaining a competitive edge. Businesses all around the world that are looking to the future are beginning to recognize the need to implement green management practices. According to a recent study, for green management initiatives to be successful, employees need to feel motivated, empowered, and ecologically aware of greening. Because the company will be developing innovation-focused ecological initiatives and programs, organizational environmental management demands a high degree of expertise and management skills among its employees. This is because these initiatives and programs have important implications for management (Suhaimi, 2011).

To achieve a triple bottom line, HRM plays a crucial role in embedding the organization's sustainability strategy and cultivating the skills, inspiration, beliefs, and trust necessary to accomplish this goal. It ensures that the organization's internal and external stakeholders will remain healthy and sustainable over the long term. As a result, there is a growing demand to integrate environmentally sustainable practices into human resource management (HRM), often referred to as Green HRM (Nijhawan, 2014).

By implementing Green HRM practices like flexible work schedules, digital filing, car-sharing, shared employment, teleconferencing, and virtual offices, businesses can help their employees reduce their carbon footprints while also reaping the benefits of cost savings, improved efficiencies, a more positive attitude towards their jobs, a better balance between their personal and professional lives at work, higher productivity, and greater loyalty from their staff (Margaretha and Saragih, 2013).

In the modern era, human resources managers should integrate green cues into more traditional HR responsibilities to secure ecological sustainability and create a competitive edge for their organizations. Implementing sustainable HRM practices can help an organization achieve outstanding performance. In addition, the government may enact legislation to encourage these practices, given that achieving organizational excellence will have a favorable impact on the economy over time. All of these are potentially made easier through proactive organizational and national activities aimed at developing human resources (Mohammad, 2019).

According to Mandip (2012), GHRM uses personnel as a resource to promote resilient environmental efforts while focusing on the initiation of environment-sensitive operations that lead to high efficiency, low costs, strong employee involvement, and high staff retention. GHRM uses its employees as a platform to encourage feasible environmental initiatives.

According to Renwick et al. (2013), GHRM may be characterized as a blend of the organisation's HRM and ecological preservation actions. According to Mandip (2012), Green Human Resources Management is the HRM component of corporate environmental responsibility.

Conceptual Framework and Hypotheses of The Study

Research indicates an association between Green HRM practices and sustainability performance in companies. Green HRM involves incorporating environmental factors into various HRM practices, including hiring, instruction, evaluation, and staff retention. Organizations can promote a culture centered around sustainability by motivating personnel to become involved in ecologically conscious practices by implementing Green HRM practices (Jackson, 2011; Hossain, 2022). Research suggests that organizations that adopt Green HRM practices can gain a competitive advantage over their rivals. Green HRM practices not only enhance the sustainability performance of organizations but also contribute to improved employee motivation, engagement, and retention. This, in turn, can lead to enhanced productivity, innovation, and cost savings, providing organizations with a competitive edge in the market (Rao, 2018). Sustainability practices, such as energy conservation, waste reduction, and eco-friendly product development, are crucial in translating Green HRM practices into competitive advantages. These practices align with environmental goals and lead to cost savings, improved brand image, and customer loyalty. By integrating sustainability practices, organizations can maximize the benefits of their Green HRM initiatives, resulting in a stronger competitive position (Shukla, 2017).

The following conceptual framework has been developed with proper respect to the literature already reviewed and in-depth familiarity with the subject at hand.

Figure 1 shows the research model of the study, indicating the linkage among Green HRM practices and sustainable competitive advantages, formulated by the author..

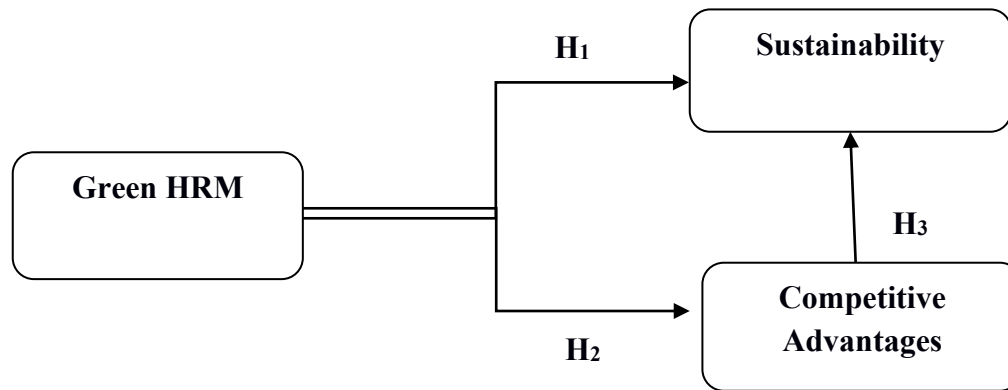


Figure 1: Research Framework of the Study developed by the Author

Green HRM and Sustainability Practices Sustainability Practices and Green HRM: Green HRM refers to incorporating environmental concerns into HR functions, policies, and practices. It includes green recruitment and selection, green training and development, eco-friendly employee engagement initiatives, and green performance management (Renwick, 2013). First hypothesis:

H1: Green HRM practices have a significant positive impact on sustainability practices.

Green HRM and Competitive Advantages: Organizations adopting green HRM practices will likely gain competitive advantages. Green HRM can improve employee engagement, enhance organizational reputation, increase innovation, and achieve cost savings through energy efficiency and waste reduction (Zhu, 2013). Thus, the 2nd hypothesis states:

H2: Green HRM practices have a significant positive impact on competitive advantages.

Mediating Role of Sustainability Practices: Green HRM may mediate competitive advantages when businesses adopt sustainability policies that encompass a wide range of activities to reduce their environmental impact and promote ecological responsibility. Sustainability practices can include energy conservation, waste management, green procurement, and eco-friendly product/service development (Delgado-Ceballos, 2019). The third hypothesis states:

H3: Sustainability practices mediate the relationship between Green HRM practices and competitive advantages.

The first hypothesis examines how Green HRM influences organizations' efforts to become more sustainable and, in turn, their competitive benefits. This theory holds that implementing green HRM practices will help companies become more environmentally friendly, giving them a competitive edge. The second theory is about how Green HRM and competitive benefits are directly linked. It says that Green HRM methods have a direct effect on achieving a competitive advantage. This theory posits that companies that adopt Green HRM practices will achieve better performance, greater innovation, lower costs, and a stronger reputation, giving them a market edge. The third hypothesis examines how sustainability practices affect the relationship between Green HRM and competitive benefits. It suggests that green practices act as a bridge, making it easier for Green HRM to help companies gain a competitive edge. In other words, the connection between Green HRM and competitive benefits is mediated by sustainability practices, which translate Green HRM's environmental focus into tangible results that give a business an edge. Based on the above theoretical background and the assumptions, the following framework has been made.

METHODOLOGY OF THE STUDY

Data Collection and Sampling Design

The study's population comprises employees from various multinational corporations (MNCs) operating within Bangladesh. The research intends to examine the participants with expertise, practical experience, and memory in the relevant domain.

Proportional distribution decides how many people from each group will be in each sample. The allocation is said to be proportional when the total sample size $n(235)$ is spread out among 10 randomly chosen MNCs in the Dhaka district in proportion to the total number of responders.

In the proper location. $n_i = n \frac{N_i}{N}$ for $i = 1, \dots, 7$.

Where N_i is the Population (total number of beneficiaries) in the i th district, n_i is the sample of the i th district, and N is the total number (600) of employees in 10 randomly selected MNCs. After determining the sample size for each category, further stratification was performed by gender (male and female).

The present study employs a simple random sampling technique. The researchers distributed Online and offline questionnaires to obtain a representative sample of responses.

The study surveyed 235 participants who were employees of various organizations, including banks, financial institutions, and telecommunications companies.

The study's participants were seasoned professionals from multinational corporations located in Dhaka. These individuals possess knowledge, experience, and corporate acumen around Green HRM. This study examines the impact of employees' knowledge regarding green practices, the digital transformation of their roles, experiencing competitive advantages in the market, and involvement in green initiatives.

Having reviewed relevant literature about the variables investigated in the study, we have developed online and offline questionnaires to collect data from the study participants. These questionnaires encompass three distinct domains: the initial set focuses on demographic information concerning the study population, while the remaining questions aim to ascertain the relationship between three variables: 1) HR's Green functions, 2) Sustainability, and 3) Competitive Advantage.

Validity of the Study

The validity of the study has been defended by looking at several articles that are relevant to it. A preliminary survey with a smaller sample size was carried out to demonstrate that the questionnaire is necessary. After completing the pilot survey, several questions were altered or omitted entirely.

Table 1 presents the sources of measurement items utilized in this study, emphasizing the primary paradigms, associated measurement particulars, and the scholarly publications where they were adopted. The measurement items address Green HRM, sustainability practices, competitive advantage, and employee perception, demonstrating that the study is well-founded in extant literature and empirical research.

Table 1: *Sources of measurement elements*

Paradigm	Measurement Particulars	Sources
Green HRM and Sustainability Practices	Green HRM practices are effectively implemented in my organization.	Mandip, G (2012)
	My organization considers environmental factors while making HRM decisions.	
	My organization encourages employees to participate in sustainability initiatives.	Verma. R (2015) Sayeed (2018)

	There is a strong emphasis on environmental sustainability within my organization.	
	My organization incorporates green practices in its HR policies and procedures.	
Green HRM and Competitive Advantage	My organization believes that implementing green HRM practices provides many competitive advantages.	Gharibeh. M. (2019)
	Green HRM positively affects sustainability practices in organizations, leading to a competitive advantage.	
Sustainability Practices as Mediators	Sustainability practices positively affect our organization's competitive advantages.	Stojanoska, A. (2016). Wehrmeyer, W. (2017). Hristova, Snezhana; Stevceska-Srbinovska, Dusica (2020)
	Green HRM practices positively affect our organization's sustainability practices.	
	There is a relationship between Green HRM practices and our organization's competitive advantages.	
	Sustainability practices mediate the relationship between Green HRM practices and competitive advantages.	
	Green HRM practices directly contribute to our organization's competitive advantages.	
Overall Perception of Employees	Green HRM positively affects sustainability practices in organizations	Hossain and Shirazi (2022), Muisyo, P.K., Qin, S., Ho, T.H. and Julius, M.M. (2022)
	Green HRM positively affects a competitive advantage.	

Methods of Data Collection

To aid in developing the study's operational framework, a questionnaire comprising three categories was designed for primary data collection from the sample respondents. The secondary data was gathered to establish the theory through a systematic review of relevant books, journals, white papers, and online resources.

Measurements Approach:

The survey questions and study factors were measured using a 5-point Likert scale. The scale is set up so that Strongly Disagree = 1, Disagree = 2, Neutral = 3, Agree = 4, and Strongly Agree = 5. The method of measuring is right for the study group and has been tried and tested in other studies.

Statistical Tools

Descriptive statistics were produced during the research by employing various statistical approaches, models, and testing procedures. The testing of hypotheses based on regression is the primary focus.

Data Analysis

Descriptive Analysis: Demographic profiles were calculated by frequency and percentage distributions.

Hypothesis Testing: Structural Equation Modeling (SEM) using SmartPLS was performed.

Bootstrapping Method: Employed to examine path coefficients and mediation impacts.

Sobel Test: Employed to examine the mediating effect of sustainability practices between Green HRM and competitive advantage.

Analysis and Findings

Demographic information

Table 2 displays the participants' demographic information. There was a significant gap between the response rates of males and females. Table 2 shows that 72% of the participants were male and 28% female. Among the participants, 48% held a master's degree, 36% a bachelor's degree, and 16% a doctorate or higher.

Table 2: *Demographic information of respondents*

	Particulars	Frequency	Percentage (%)
Gender	Male	170	72.3
	Female	65	27.7
Educational Qualification	Graduation/Honors	85	36.1
	Post Grade/Masters	113	48.0
	Doctoral Degree and above	37	15.7
Age	Below 20 years	2	00.9
	20–29 years	79	33.6
	30–39 years	112	47.7
	40–49 years	37	15.7
	50 years and above	7	2.9
Years of Experience in	Less than 1 year	3	1.3

the present organization	1-4 years	78	33.2
	5-8 years	97	41.3
	9-12 years	42	17.9
	More than 12 years	15	6.4

To enable a better understanding of the respondents' profiles, a set of bar charts was created using demographic information. The graph for gender distribution highlights a stark difference, with 72.3% of the respondents being male and 27.7% female, thus pointing towards male dominance in the workforce sampled. The chart for educational qualifications shows that most participants (48%) hold a postgraduate degree, followed by 36.1% with a bachelor's degree and 15.7% with a doctoral or higher qualification—reflecting a highly educated sample of respondents. The graph for age distribution highlights that most respondents belong to the age bracket of 30–39 years (47.7%), followed by the age group of 20–29 years (33.6%), highlighting a fairly young and mid-career professional sample. The experience chart shows that the highest number of participants (41.3%) have an experience of 5–8 years, reflecting that most of the respondents are experienced professionals with firsthand knowledge of organizational practices. These visual aids complement the analysis through a holistic overview of the respondents' profiles, which is a key requirement for understanding their views about Green HRM, sustainability, and competitive advantage.

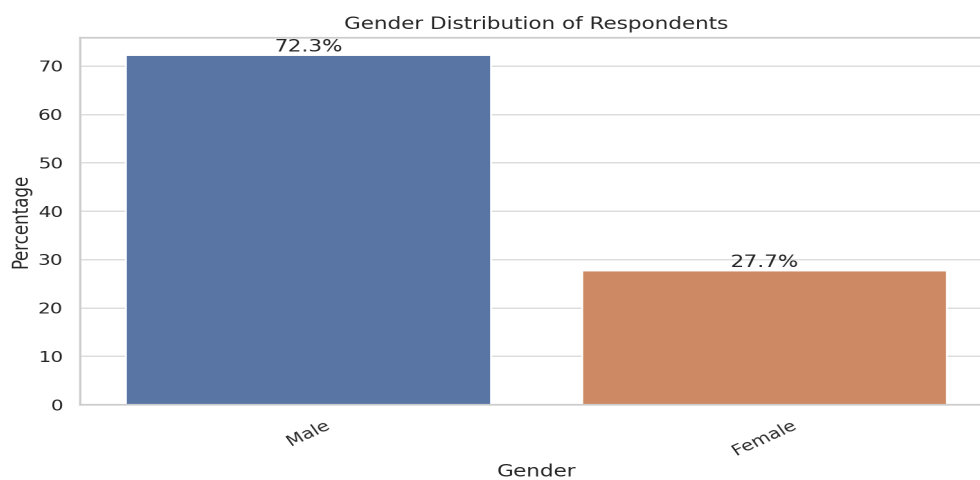


Figure 2: Gender Distribution of Respondents

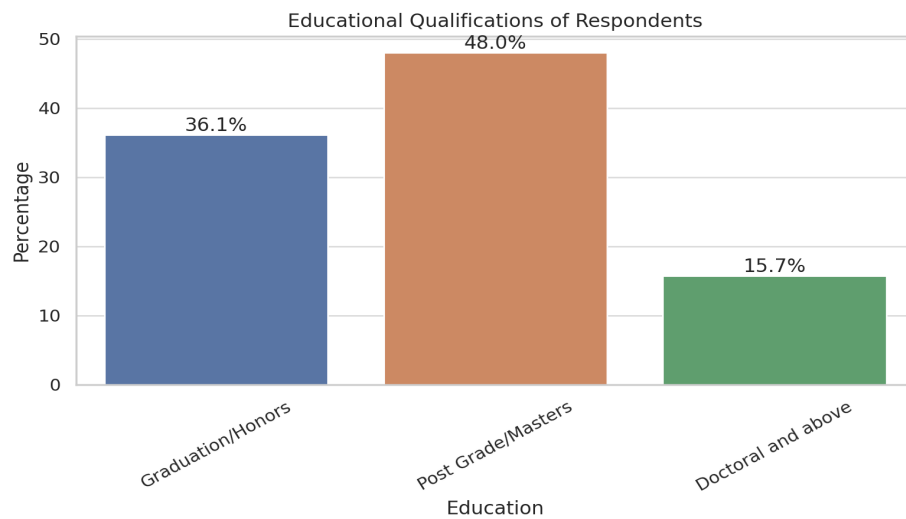


Figure 3: Educational Qualifications of Respondents

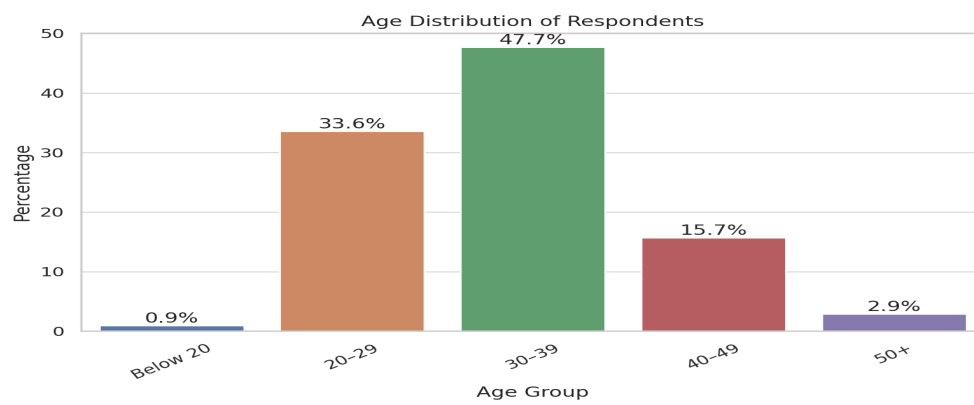


Figure 4: Age Distributions of Respondents

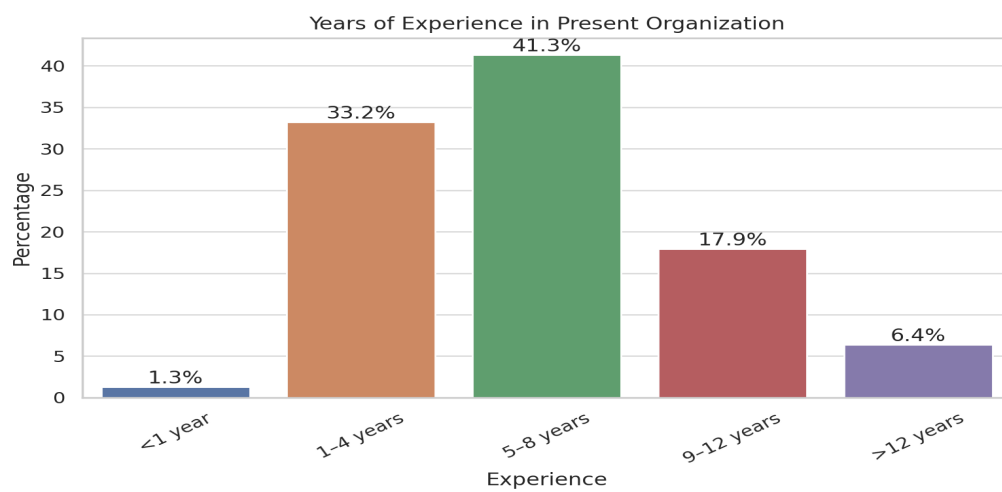


Figure 5: Years of Experience

Demographics of respondents

Measurement model

Hair, Hult, Ringle, and Sarstedt (2016) posit that evaluating the measurement model involves the utilization of internal consistency, convergent validity, and discriminant validity. Cronbach's alpha and composite reliability (CR) are commonly employed measures of internal consistency. A recommended threshold of 0.70 is suggested for both measures, per the guidelines proposed by Hair, Anderson, Tatham, and Black (1995). The metric utilized to ascertain convergent validity is the average variance extracted (AVE), with a value greater than 0.50 deemed acceptable. Apart from evaluating convergent validity, item loading can also assess discriminant validity. As per the findings of Hair et al. (1995), a sufficient criterion for item loading is a value exceeding 0.50. The Heterotrait-Monotrait ratio of correlations (HTMT) is a criterion utilized to assess the discriminant validity of a test. According to Henseler, Ringle, and Sarstedt (2015), an acceptable value for this criterion is below 0.90.

Table 4 shows the results of the HTMT for this study. Table 3 shows the CR, Cronbach's Alpha, and AVE values. The Cronbach's alpha value of the paradigms, which ranges from 0.737 to 0.823 $>$ 0.70, and the construct reliability, which ranges from 0.761 to 0.923 $>$ 0.70, show that the constructs have high internal consistency and reliability levels. Table 4 shows that the AVE ranges from 0.537 to 0.827, higher than the 0.50 limit. This indicates that the goal of mutual validity was met. Table 4 shows that none of the ratios of correlation between the HTMT and the construct are higher than 0.90, which is the minimum level for good discriminant validity. The results show that the constructs are both reliable and valid to a high level.

Table 3: *Construct's reliability and validity*

Particulars	Cronbach's alpha	CR	AVE
Green HRM and Sustainability Practices	0.823	0.895	0.827
Green HRM and Competitive Advantages	0.815	0.761	0.733
Sustainability Practices as Mediators	0.798	0.908	0.537

Employee's Perception	0.737	0.923	0.798
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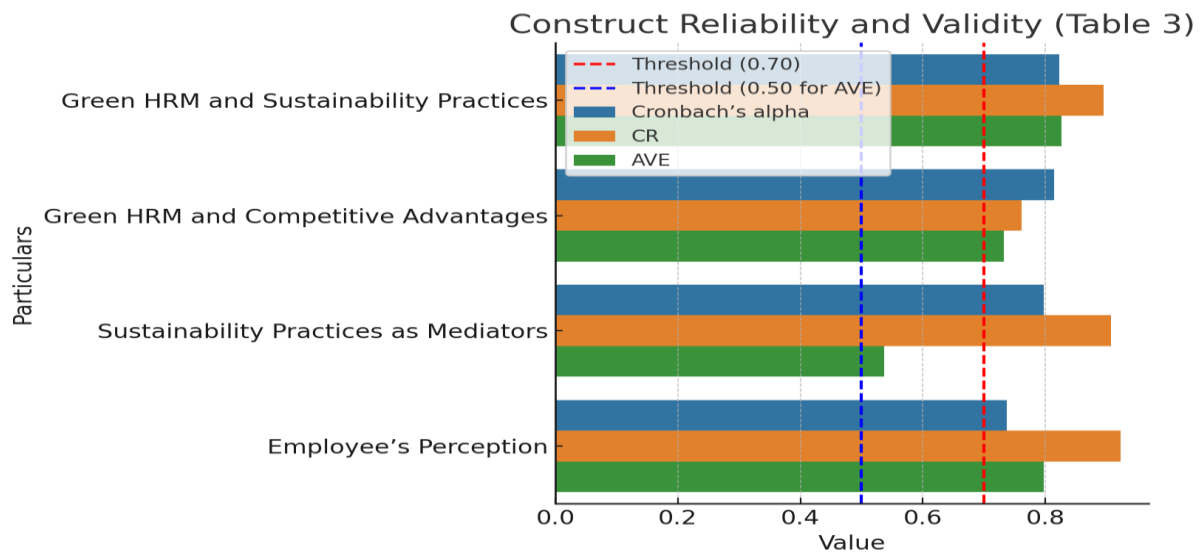


Figure 6: Reliability and Validity Metrics of Constructs (Based on Table 3)

Table 4: Heterotrait-monotrait ratio (HTMT)

Factors	Traditional HRM	Sustainability	Competitive Advantages	Sustainability Practices as Mediators
Traditional HRM				
Green HRM and Sustainability Practices	0.019			
Green HRM and Competitive Advantages	0.083	0.097		
Sustainability Practices as Mediators	0.095	0.131		
Green HRM	0.083	0.067	0.085	0.183

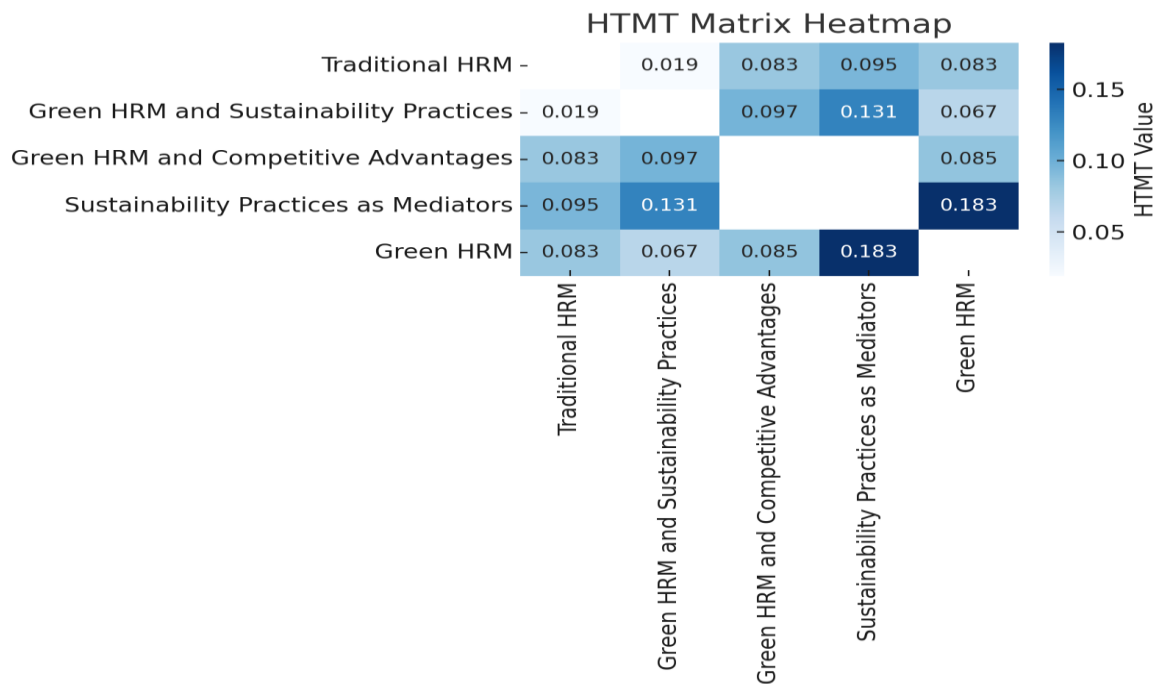


Figure 7: HTMT Ratios for Discriminant Validity Assessment (Based on Table 4)

Table 5: Hypothesis testing structure based on the bootstrapping technique

	Original sample (OS)	Sample means (SM)	The standard error (Std. ERR)	t-statistics (O/STERR)	p-value
Green HRM and Sustainability Practices	0.584	0.577	0.054	8.98	0.000
Green HRM and Competitive Advantages	0.007	-0.002	0.059	0.093	0.823
Sustainability Practices as Mediators	0.081	0.017	0.044	1.631	0.121

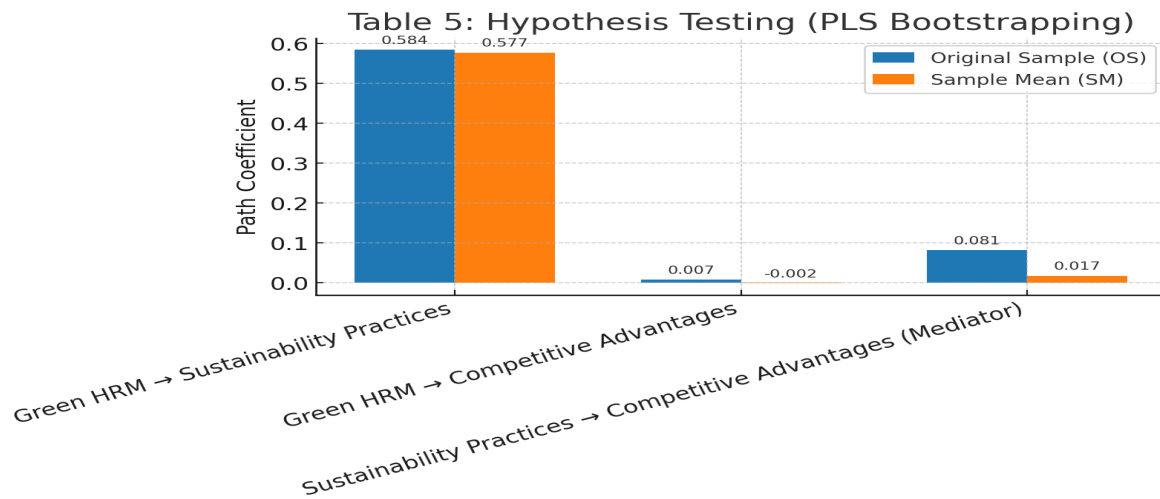


Figure 8: Structural Model (Bootstrapping Result)

Table 6: R^2 and R^2 adjusted

	R^2	R^2 adjusted
Sustainability	0.395	0.413
Competitive Advantages	0.373	0.368

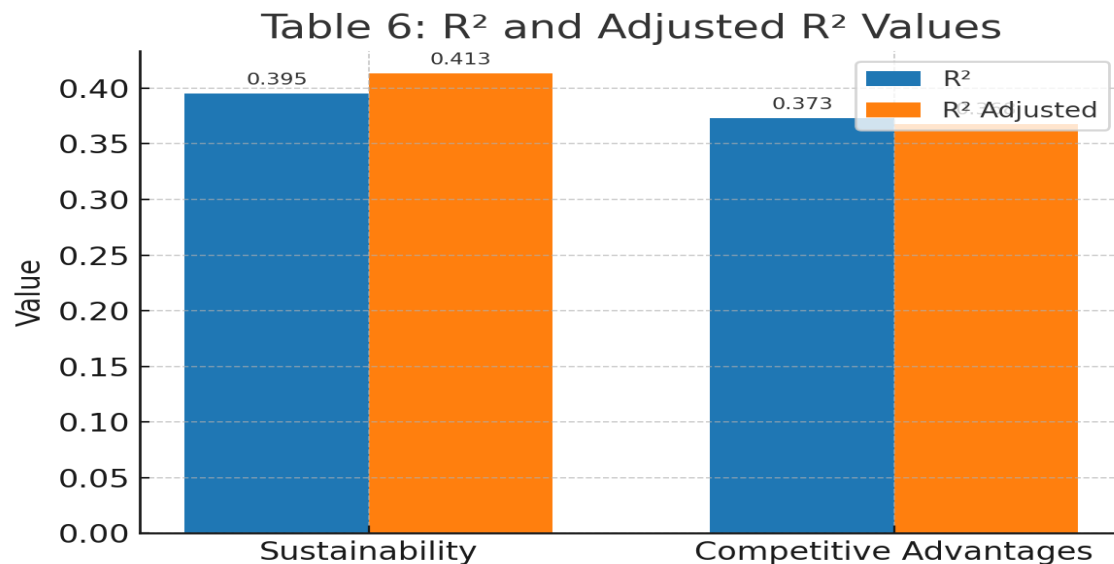


Figure 9: Mediation Path (Sobel Test)

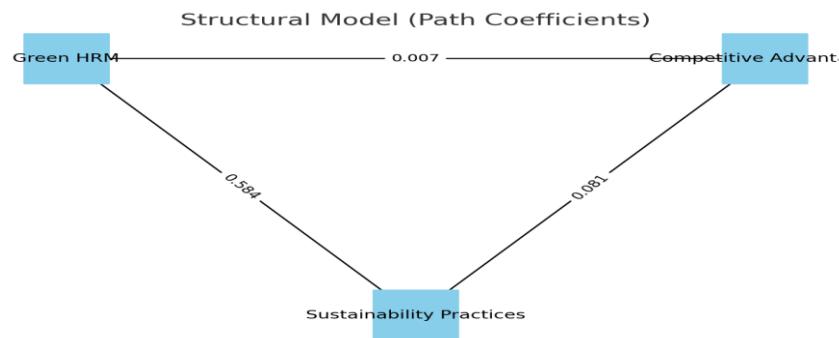


Figure 10: Structural Model Assessment

Figure 10 illustrates the structural model with standardized path coefficients derived from the PLS algorithm. The graph visually represents the hypothesized relations between constructs, with coefficients representing the strength and direction of these relationships. The path from Green HRM to Sustainability Practices ($\beta = 0.584$) is significant, providing support for Hypothesis 1, whereas the insignificant relationship between Green HRM and Competitive Advantages ($\beta = 0.007$) implies that sustainability practices can be a mediating rather than driving factor.

Table 7: *The Results of the Sobel Test*

Path coefficient	Sample mean	Standard deviation	Test statistics: 2.424963351 (>1.96)	
Direct No Medi: 0.552	SBL to CA: 0.557	SBL to CA: 0.043	One-tailed (0.05<)	Two-tailed (0.05<)
Direct Medi: 0.413	SBL to CA: 0.193	SBL to CA: 0.101	0.00467523	0.01055102

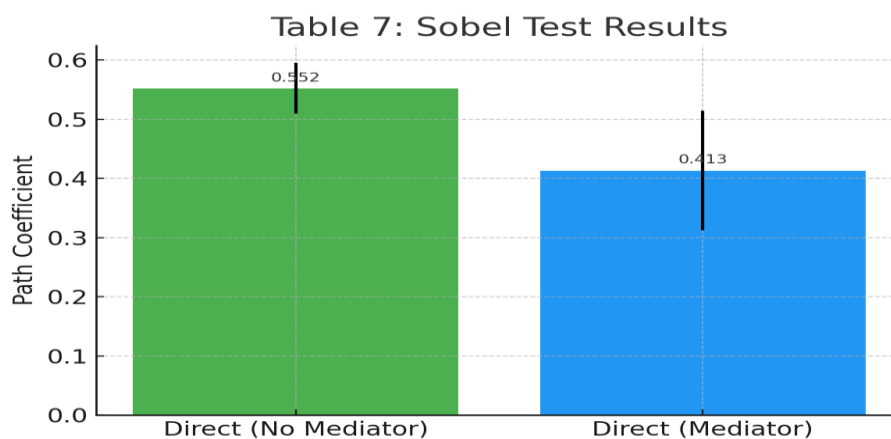


Figure 11: Bar Chart of Path Coefficients

Path coefficient: The path coefficient represents the strength and direction of the relationship between variables. In this chart, there are two path coefficients listed:

- Direct No Medi: This is the path coefficient for the direct effect of the independent variable (Green HRM Practices) on the dependent variable (Competitive Advantages) when there is no mediator variable (Sustainability). It has a value of 0.552.
- Direct Medi: This is the path coefficient for the direct effect of the independent variable on the dependent variable when there is a mediator variable. It has a value of 0.413.

The effect of mediation

The Sobel test, which was designed by Sobel (1982) and used the calculator developed by Soper (2016), was applied to evaluate the mediating influence of the Green HRM and Sustainability practices. The results of the Sobel test are listed in Table 7. The conclusion that Sustainability practices act as a mediator in the connection between Green HRM practices and competitive advantages is supported by the findings of the Sobel test, which showed that the p-value was less than 0.05. This results in the confirmation of our hypotheses H2 and H3. The mediator's presence reduces the value of the path coefficient, which goes from 0.552 to 0.413. This indicates that the mediation (H1) is only partial.

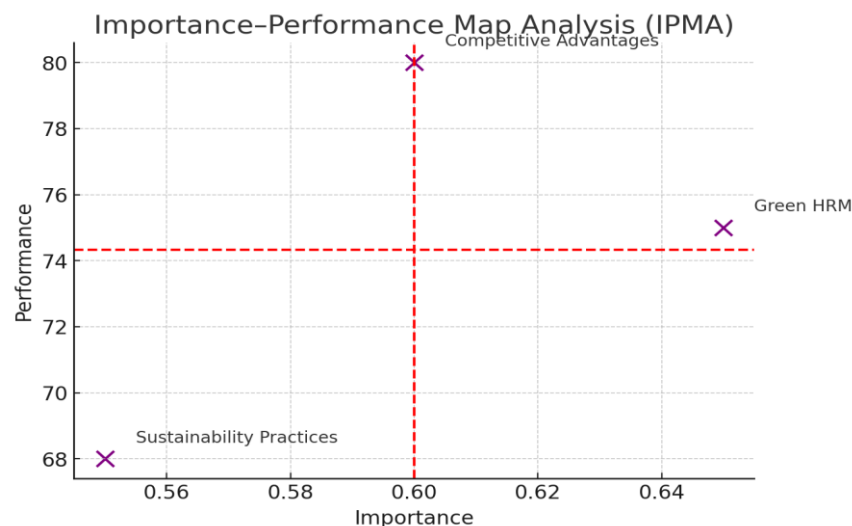


Figure 12: Importance–Performance Map Analysis

Figure 12 illustrates the Importance–Performance Map Analysis (IPMA) with Competitive Advantages as the target construct. The horizontal axis indicates the importance of each

predictor for explaining variance in Competitive Advantages, and the vertical axis indicates the respective performance scores. Constructs in the upper-right quadrant (high importance, high performance) ought to be retained, while constructs in the lower-right quadrant (high importance, low performance) need to be targeted for improvement on a priority basis. The findings indicate that although Green HRM is exhibiting high importance, there is still room to improve its performance to additionally consolidate competitive advantages.

DISCUSSION

The participants' demographic information and the measurement model used in a study on Green HRM, Sustainability Practices, and Competitive Advantages.

Regarding the demographic information, Table 2 presents the participants' gender distribution and educational qualifications. It indicates a significant difference in response rates between males and females, with 72.3% male and 27.7% female participants. Regarding educational qualifications, 36.1% of graduates, 48.0% held a post-graduation, and 15.7% had a doctorate or higher.

In this research endeavor, the evaluation of the measurement model involved using the internal consistency, convergent validity, and discriminant validity criteria. Both Cronbach's alpha and composite reliability (CR) were utilized to evaluate the dependability of the study's methodologies. As can be observed in Table 3, both Cronbach's alpha and CR values are higher than the needed cutoff of 0.70, which indicates that the constructions are extremely consistent and dependable.

The convergent validity of the study was evaluated using the average variance extracted (AVE) statistics. The AVE values range from 0.537 to 0.827 and show that convergent validity was attained because they are greater than the standard value of 0.50 in this context.

We also looked at the HTMT and item loading to determine whether the test was discriminant. Items with loads above 0.50 were validated for discriminant validity. Discriminate validity was determined to be adequate because HTMT's correlation ratios with the construct were lower than the cutoff of 0.90.

Table 5 presents the results and testing of hypotheses using the bootstrapping method for the structural model. The path coefficients represent the strength and direction of the associations between variables. In this instance, the path coefficients are reported for two different situations: "Direct No Med" represents the direct effect of Green HRM Practices on Competitive Advantages without the mediator (Sustainability), whereas "Direct W/Med"

represents the direct effect with the mediator. "Direct No Med" and "Direct W/Med" have respective values of 0.552 and 0.413.

Table 6 presents the R^2 (coefficient of determination) and the adjusted R^2 values for the dependent variables, which include sustainability and competitive advantages. The R^2 provides the percentage of variance that the independent variables explain in the model. In contrast, the adjusted R^2 considers the number of predictors and gives a better estimation for models with more than one variable.

For sustainability, the R^2 is 0.395, which suggests that the model accounts for 39.5% of the variance in sustainability. The adjusted R^2 is 0.413, suggesting little increase when adjusting for the number of predictors. Similarly, for competitive advantages, the R^2 is 0.373, suggesting that the model accounts for 37.3% of its variance, with an adjusted R^2 of 0.368, indicating little adjustment for model complexity.

The values reflect the model's moderate capacity to explain, highlighting the influence of independent variables on sustainability and competitive advantages. Future analysis, based on the effect sizes and significance levels, will assist in interpreting the strength of these relationships in the context of digital transformation in performance management systems.

The Sobel test was used to determine the mediating effect of sustainability practices. According to Table 7, sustainability practices mediate the relationship between green human resource management practices and competitive advantages. The Sobel test yielded a p-value less than 0.05, validating hypotheses H2 and H3. When the mediator is present, the path coefficient declines from 0.552 to 0.413, indicating that the mediation effect (H1) is only partial.

Overall, the study's findings indicate that Green HRM Practices, Sustainability Practices, and Competitive Advantages have a significant relationship. It was discovered that sustainability practices partially mediated the relationship between green HRM practices and competitive advantages.

CONCLUSION

The study looked at the profiles of the participants and used a measurement method to figure out how Green HRM, sustainability, and competitive advantages are related. The results showed that more men responded than women, and most participants had a master's degree. The study of the measurement model showed that it was internally consistent and reliable. This was demonstrated by the fact that both Cronbach's alpha and the composite reliability

values were higher than the acceptable threshold. The average variance was higher than the accepted value, which showed that the convergent validity was true. The discriminant validity was demonstrated by item loading values and HTMT correlation ratios lower than the allowed level. The path coefficient structural model study showed that relationships have different strengths and go in different directions. Both with and without Sustainability, Green HRM Practices directly affect Competitive Advantages. The Sobel test showed that the link between green HRM practices and competitive benefits was mediated by sustainability practices, even though the path coefficient was only slightly lower. The study showed the strong link between Green HRM, sustainability, and competitive advantages. It also showed how important it is to incorporate environmental sustainability into HRM practices to gain a competitive edge.

Limitations of the Study and Future Research Direction

The study presents noteworthy results, yet certain constraints must be acknowledged. The study exclusively concentrates on multinational corporations (MNCs) located in Dhaka, where Green HRM is prevalent across various industrial sectors. Hence, further investigation into different business sectors across Bangladesh remains a potential area for prospective research. This study is limited to employees' viewpoints in various MNCs located in Dhaka and may not apply to other corporate sectors throughout the country. Additional research should be conducted using different means of sustainability and competitiveness to generalize these findings further. Further research can explore additional impacts of Green HRM practices.

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