



## Assessing the Impact of Green Human Resources Management on Environmental Performance in the Context of Bangladeshi RMG and Non-RMG Sectors

**Nazma Akhter**

Assistant Professor

Department of Business Administration

Notre Dame University Bangladesh

2/A, Arambag, Motijheel, Dhaka, Bangladesh

### ABSTRACT

Environmental Management (EM) is one of the most effective tools to achieve sustainable development. Thus, there is an emerging need for Green Human Resource Management (GHRM)-the integration of Environmental Management into Human Resource Management (HRM). Consequently, GHRM is attracting increased concentration among recent management scholars towards achieving sustainable Environmental Performance (EP). The objective of this paper is to present an empirical assessment and measurement of the impact of GHRM practices on the Environmental Performance of Ready Made Garment industry and non- Ready Made Garment industry in the Bangladesh context. Furthermore, it identifies the variables that could affect the GHRM implementation from the perspective of the respondents. Data was analyzed through descriptive statistical methods with Pearson correlation coefficient, regression, and ANOVA tests performed by the Statistical Package for the Social Sciences (SPSS). EP was considered a Dependent Variable and Green Culture (GC), Green Recruitment and Selection (GRS), Green Training (GT), Green Performance Management (GPM), Green Pay and Reward (GPR), Green Empowerment and Participation (GEP) were used as independent variables. Data analysis reveals that in both the RMG and non-RMG sectors, there is a positive association between GHRM practice and Environmental Performance (EP). In both sectors, GC and GEP play a great role in increasing the EP of the organizations. In the RMG sector, GC is strongly correlated, and GT, GPM, and GEP are moderately correlated with EP. Similarly, in the non-RMG sector, GC, GT, GEP, and GPR are moderately correlated with EP. On the other hand, in both sectors, GPR has negative impacts on Environmental Performance (EP). The implications of the research offer constructive insights on how ready-made garments and other sectors should strategically link their HR functions to support their EP, which is crucial for achieving competitive advantage.

**Keyword:** *Environmental Management, Green Human Resources Management, Environmental performance, RMG*

### 1. Introduction

Environmental sustainability is the most emerging issue in the present segment of industrialization as the industrial revolution caused a boost in the degradation of the environment (Jabour and Santos, 2008). Now, organizations generally are expected to be responsible for environmental management (EM) (Rondinelli and Berry, 2000) and also both developed and developing countries became more alarmed about the significance of environmental issues and sustainable development (Sharma and Gupta, 2015). Environmental management has to consider “triple bottom line”, which incorporates social, environmental and financial aspects (Elkington, 2006). Definitely, all organizations are now responsible to make more effort in balancing they're economic, social, and environmental performance, especially for which

community, competitive and regulatory pressures (Ayuso, Rodríguez, García-Castro, & Ariño, 2014; Russo and Fouts, 1997). The efficacy of any strategic measure is reliant on the availability and capability of its people (Boselie, Paauwe, & Jansen, 2001; Paauwe and Boselie, 2003). Thus to get success Organizational strategies for environmental management and sustainable development should be properly aligned with its human resource practices (Ichniowski, Shaw, and Prennushi, 1997; Mendelson and Pillai, 1999; Collins and Clark, 2003). As mentioned by Mandip (2012) HR is considered as a crucial player in achieving sustainable development in the organization.

Some researchers (e.g. Renwick, Redman, & Maguire, 2013; Daily and Huang, 2001; Jackson, Renwick, Jabbour, & Muller-Camen, 2011) emphasized the significance of employees' green activities in the workplace. Green Human Resource Management (GHRM) is the combination of EM into HRM practices is known as Green Human Resource Management (GHRM), which targets to benefit organizations to improve Environmental Performance (EP) through increasing positive employees' involvement and commitment towards environment (Renwick, Redman, & Maguire, 2008; Jackson et al., 2011) and help to bridge the deviation between available and required technically and managerially skilled workforce for successful implementation of environmental management systems (Daily and Huang, 2001; Renwick et al., 2013). Many researchers supported that GHRM practices are the greatest strategy of environmental performance programmes and GHRM practices provide a fundamental structure that allows organizations to better govern the organization's environmental impacts (Sudin, 2011). According to Sheopuri and A. Sheopuri (2015), GHRM is responsible for lower costs, greater efficiencies, and better employee retention and engagement thus help organizations to decrease employee carbon footprints.

In Bangladesh in the late 70's the journey of the RMG industry started and within a very short period of time, it has become the largest export earner of the country. Despite of being a major driver of Economy, workers safety and welfare, poor infrastructure, lack of training and research, low productivity, lack of skilled workforce are the major challenges and thus immense competition from the rival country (Rakib & Adnan, 2015). With intense competition and changing environmental conditions it is crucial for the RMG sector of Bangladesh to reconfigure its directions strategically for achieving environmental performance.

In Bangladesh, GHRM practice of RMG sector is an under-researched area. Hence, it has become important to explore the impact of GHRM on Environmental Performance this sector. This study seeks to provide a better understanding of the relationship between the green HRM practices and environmental performance of both RMG and Non-RMG sectors in Bangladesh.

## 2. Literature Review

According to Kolk and Mauser (2002) Environmental Management models have limited suitability for specific situations, and insufficiently consider the organizational and strategic complexities. Since these models could not fulfill the growing business need to obtain more detailed insight into their environmental performance and to gain competitive advantage, this led to the emergence of environmental performance evaluation systems.

**Table 1. A corporate environmental performance matrix. Reproduce from *Journal of Accounting and Public Policy*, volume 17, Ilitch AY, Soderstrom NS, Thomas TE, Measuring corporate environmental performance, p 388.**

	Internal	External
Process	Organizational systems	Stakeholder relation
Outcome	Regulatory compliance	Environmental impacts

Ilinitchet *al.* (1998) have developed a two by two ‘corporate environmental performance’ matrix to categorize the large variety of possible indicators which differentiates between internal and external components, and also between process and outcome variables. The process dimensions include audits, number of environmental staff, mission statements, communications etc. and outcomes usually include more quantitative data on toxic releases, spills, violations of regulatory standards and penalties.

Besides, the European Green Table (1997) established generic categories of environmental performance indicators. Environmental performance indicators are divided into management performance indicators, and operational performance indicators (inputs and outputs).

Recently, to achieve competitive advantage many organizations in most of the industries are implementing strategic environmental performance programmes (Rodríguez-Antón, del Mar Alonso-Almeida, Celemín, & Rubio, 2012). This is because environmental performance programmes lead to quite a lot of benefits, such as more well-organized business practices, operational cost savings, increasing image, compliance with the regulations and improved competitiveness (Quazi, 1999) and also the reduction of emissions, greenhouse gasses, hazardous waste and solid waste (Daily, Bishop, & Massoud, 2012). The number of organizations applying and developing the concept of environmental performance into their business strategies is growing (Aragón-Correa & Sharma, 2003). It seems possible that integrating environmental performance programmes into their business strategies can lead to improved organization’s performance (Melville, 2010). Therefore, organizations themselves have developed a variety of measures that consist of several basics of environmental performance (Ilinitch, Soderstrom, & Thomas, 1998).

The effective implementation of environmental performance can only be achieved when the organization has the right people with the right skills and capabilities (Daily & Huang, 2001). Therefore, HR practices must be aligned with business strategic goals. Hence, organizations are able to outline the skills, behavior, and attitudes of the individual as well as influence them to execute their work and accomplish the organization’s goals (Collins & Clark, 2003).

Renwick et al. (2013) concise three core components of the HR aspects of EM. The first core component is associated with the development of green abilities and implies practices such as selecting, recruiting, training and developing environmental knowledge, and encouraging EM leadership. The second core component is related to the motivation of green employees and denotes appraisal and rewards. The third core component is related to the stimulation of employee involvement and implies valorizing tacit knowledge, empowering employees, and creating a green organizational culture. It means, in GHRM various human resource practices are designed in a manner to create a workforce that understands and promotes green behavior in the organization (Mathapati, 2013). In general, this requires talent, skill and employees’ motivation for sustaining the organization’s environmental performance programmes (Brammer, Millington, & Rayton, 2007). Based on some evidence, green HRM practices increase employees’ engagement, reduce costs and enhance efficiency. Furthermore, green

HRM practices help organizations to lessen the carbon footprint of employees by carpooling, virtual training, job sharing, teleconferencing and online interviews and recycling (Mandip, 2012).

According to Jabbour (2011), the selection and recruitment processes have an impact on environmental performance. Therefore, to attract an increasingly environmentally aware talent in selection organizations should build an environmental reputation and images inspired by the thought that these organizations are environment responsive (Kapil, 2015a; Guerci, Longoni, & Luzzini, 2016). Organizations should reflect their environmental sustainability agenda on the organization's website and other public channels accessible so that applicants can clearly view the organization's greening focus (Kapil, 2015a; Arulrajah, Opatha, Nawaratne, 2015) and should make sure that environmentally enthusiastic applicants have higher probabilities of being selected (Jabbour, 2011). Green recruitment ensures the understandings of the new recruits about organization's green culture and sharing its environmental values (Jackson and Seo, 2010) through drawing out candidate's environmental knowledge, values and beliefs (Renwick et al., 2013). Wehrmeyer (1996) recommends few ways organization can follow in order to enhance GHRM through recruitment and selection process such as job descriptions should specify the relevant environmental issues; interview should be tailored to measure the potential compatibility of the candidate with the organization's green goals; and orientation programme should be designed to provide new recruits with information about sustainable development policies and commitments, and green goals of the organization. Therefore, searching best green recruitment practices is essential to organizations and environmentally responsible employers can help to attract talent green people to implement corporate environmental management initiatives and ultimately it contributes to achieving organization's environmental goals with increase sustainability EP.

Employee training is crucial for the successful implementation of the environmental management system and the creation of an environment- friendly culture in the organization (Teixeira Jabbour, & Jabbour, 2012). With regards to green training, the organization should update the employees about the green policies and procedures, the advantage of the environmental performance and the organization's initiatives to improve its environmental performance (A. Sheopuri & A. Sheopuri, 2015). Employee training and development programs should include social and environmental issues at all levels (Mandip, 2012; Mehta and Chugan, 2015) and should be based on training needs (Cherian and Jacob, 2012). Renwick et al. (2013) suggest certain green training and development practices such as training staff to produce a green analysis of workspace, energy efficiency, waste management, recycling, and development of green personal skills. According to Jackson, Renwick, and Muller-Cames (2011), providing training to encourage recycling and waste management, supporting flexible schedules and telecommuting, and reducing long-distance business travel are very useful to reduce the negative environmental impacts of the organisations. In addition, the common benefits gained by the organizations and employees from green training are competitive advantages and helps sustaining high standards of the organization's services (Murthy, 2008).

Performance management is considered as one of the key human resource practices for promoting environmental behavior and sustainable development, thus advocating green performance management (Gholami et al., 2016). As mentioned by Sharma and Gupta, (2015) and Kapil (2015) HRM should integrate EP into PMS by setting EM objectives, responsibilities, monitoring EM behaviors, and evaluating achievement of environmental objectives by using green work rating as the key indicators of job performance. This green work rating should be included in managers' and employees' appraisals record (Ramus, 2002; Prasad, 2013; Ren-

wick et al., 2013). Renwick et al., (2013) suggested that green performance appraisal includes topics such as the use of environmental responsibilities, environmental incidents and the knowledge about the environmental policy and issues, as these issues that are involved in environmental performance appraisal concern the requirement for managers to be responsible for environmental performance. Furthermore, a regular feedback to the employees or teams about their role in achieving environmental goals should be provided by the managers to improve employees' EP (Arulrajah et al., 2015; Jackson et al., 2011) and to enhance their knowledge, skills and ability and consequently their motivation and engagement in EM responsibilities (Govindarajulu and Daily, 2004). Harvey, Williams, & Probert (2013) and Kapil (2015b) also suggested the organizations to institute an online information system and audits that will enable employees to track their own EP and to participate and suggest in practical ways of making the organization greener.

While performance management system ensures evaluation of green behaviors, a green compensation system ensures that the result of the assessment is linked with rewards and benefits. It is supported by Arulrajah, Opatha, and Nawaratne (2015) that in order to motivate managers and employees on corporate environmental management initiatives, green reward management has significant contributions. In this context, EM could benefit from reward and compensation systems if it focuses on avoidance of negative behaviors and encourages eco-friendly behavior (Zoogah, 2011). Employees should be rewarded with bonuses for their efforts in creating an environment-friendly culture (Liebowitz, 2010). Renwick et al. (2013) and Opatha, (2013) had suggested several ways to promote GHRM practices as monetary-based EM rewards (e.g. bonuses, cash, premiums), non-monetary based EM rewards (e.g. leave, gifts etc.), recognition-based EM rewards (e.g. awards, dinners, publicity, praise etc.), and positive rewards in EM (e.g. feedback) and Personal rewards plan (e.g. gain green citizenship, linking suggestion scheme with rewards system and linking participation in green initiatives with career gains). From the study of Ramus (2001), it was found that recognition-based rewards, in the form of praise letters and plaques, had a better impact on employees' commitment to environmental practices more than other types of rewards. Furthermore, organizations may use green reward management practices through linking employees participation in green initiatives to encourage eco-friendly practices (Jabbar and Abid, 2014; Prasad, 2013) and also through asking them to share innovative green ideas to inspire green creativity and innovation (Ahmad, 2015).

Green employee empowerment is key to improving an organization's consequence, where employees are motivated to pursue green goals more effectively and efficiently (Tariq, Jan, & Ahmad, 2016). Research has shown that empowerment stimulates self-control, innovative thinking and problem-solving and is straightly related to productivity and performance (Renwick et al., 2013; Wee and Quazi, 2005). As suggested by Jabbour and Santos (2008) and Ahmad (2015), HR managers should inspire employees to participate and initiate green and eco-friendly ideas through empowering them as the part of EP enhancement practices. For this purpose, the HR staff can highlight the necessity to create a participative work environment to top management. The study of Rothenberg (2003) concluded that allowing employees to provide suggestions and to be early involved in problem-solving tasks is the main vehicle for enhancing workers' participation in EM initiatives. Improving organizational mechanisms for empowerment and participation of employees in the workplace enable hearing the voice of employees to help shape environmental objectives (Harvey et al., 2013), create entrepreneurs within the organization who are socially or ecologically oriented (Sudin, 2011), enhance a tacit knowledge inside people, which has great impact in identifying pollution sources, handling emergency circumstances, and expanding preventive solutions (Boiral

and Paille, 2012), encourage employees to work with the organization that has concern towards environmental issues and find greater job satisfaction (Chan & Hawkins, 2010) and thus resulting in improved EP (Renwick et al., 2013).

Green organization culture is the set of assumptions, values, symbols, and organizational objects that reflect the desire or requisite of being an environmentally oriented organization (Harris and Crane, 2002) and it is a factor of either promotion or inhibition to employee's motivation and willingness to adopt responsible environmental behaviors (Govindarajulu and Daily, 2004). However, the institutionalization of a green culture requires the understandings the environmental values by all level of employees in the organization (Ahmad, 2015; Bhutto and Aurazeb, 2016). Hence, top management should communicate environmental programs, initiatives, and goals constantly to all employees (Ramus, 2001; Govindarajulu and Daily, 2004), provide them feedback on EP in order to maintain proper values, reinforce them through education and training (Fernandez et al., 2003), define penalties for violating environmental regulations and rules (Renwick et al., 2008; Mandip, 2012), give employees time for experimentation towards EP. This would ultimately increase their enthusiasm towards EM (Daily and Huang, 2001; Daily, Bishop, & Steiner, 2007; Govindarajulu and Daily, 2004), and will eventually promote EP innovation (Govindarajulu and Daily, 2004; Ramus, 2001; Ramus and Steger, 2000).

Bangladesh is a fast-rising economy powered by the readymade garments (RMG) industry which has stimulated the country in the world through the motto 'Made in Bangladesh' (Islam et al., 2016). This sector now become one of the largest contributors to the economy of Bangladesh. Cheapness of labor, availability of skill, and expansion in the supportive sectors attract world-famous brands like H & M, Zara, Macy's, Wal-Mart, etc., (Khan, 2016). This sector has greater potential than any other sector of Bangladesh in comparison to employment and foreign earnings and in the decline of poverty (Chowdhury & Islam, 2015).

There are a large number of researches the effects of GHRM on RMG sectors. There are scarcity of research on other sectors and also on the relationship of GHRM and Environmental performance. The objective of this paper is to present an empirical assessment and measurement of the impact of GHRM practices on the Environmental Performance of Ready Made Garment industry and non- Ready Made Garment industry in the Bangladesh context.

Based on the aforementioned discussion, the research proposes the following hypotheses

**H1.** Green Human Resource Management (GHRM) has a positive impact on Environmental Performance (EP) of the RMG industry in Bangladesh

**H2.** Green Human Resource Management (GHRM) has a positive impact on Environmental Performance (EP) of Non-RMG industries in Bangladesh

**H3.** Significance difference exists between the Environmental Performance (EP) of the RMG industry and the Environmental Performance (EP) of Non-RMG industries in Bangladesh

### 3. Objective

This study attempts to examine the impact of Green HRM (GHRM) practices (Green Recruitment and Selection, Green Training, Green Performance Management, Green Pay and Reward, Green Empowerment and Participation, Green Culture) on the Environmental Performance of the garments and non-garments industry of Bangladesh.

### 4. Research Methodology

An exploratory research inquiry using a mixed methods approach, covering both qualitative and quantitative aspects sequentially (Creswell, 2004), has been used to empirically assess the impact of GHRM on EP in RMG and non-RMG industries in Bangladeshi context. In the data collection phase, a combination of primary and secondary data has been used to enrich this research.

A structured questionnaire was used as primary data collection tools. A five-point Likert Scale was used for all items ranging from '1' "strongly disagree" to '5' "strongly agree". The study population consists of organizations from Ready Made Garments (RMG) industry and Non-RMG industries like banks, Multinational Companies (MNCs), insurance companies, manufacturing and service companies of Bangladesh. Judgmental sampling technique was used to collect data from 60 mid and top-level employees (30 from Garments, 12 from banks, 3 from MNC, 5 from service providing organizations, 2 from universities, 7 from manufacturing companies and 1 from the insurance companies) within the time period from June 2018 to January, 2019. The secondary form of data was used to support and provide additional information to the primary data (Creswell, 2012). The questionnaire contained three sections where the first section contained the demographic information of the respondents, the second section contained the current GHRM practices by the company and the last part contained the environmental performance of the company.

Data were analyzed through descriptive statistical methods with Pearson correlation coefficient, T-test, and regression, ANOVA Test performed by SPSS. EP was considered as Dependent Variable and Green Culture (GC), Green Recruitment and Selection (GRS), Green Training (GT), Green Performance Management (GPM), Green Pay and Reward (GPR), Green Empowerment and Participation (GEP) were used as independent variables.

### 5. Data Analysis and Findings

#### Impact of GHRM practices on EP of RMG industry:

To check the reliability of collected data Cronbach's alpha was used. Cronbach's alpha indicates overall reliability for a set of variables.

**Table 2: Reliability Statistics for GHRM in RMG industry**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.755	.768	7

The standard value of Cronbach's alpha is 0.70. In this study, Cronbach's Alpha value of GHRM practice of RMG sector is 0.755, which demonstrates a high level of internal consistency for the scale of this sample.

**Table 3: Model Summary in RMG industry**

Model	R	R Square	Adjusted R Square	Std. The error of the Estimate
1	.803 <sup>a</sup>	.644	.547	.27036

a. Predictors: (Constant), GEP, GRS, GC, GTT, GPR, GPM

**Table 4: ANOVA<sup>b</sup> in RMG sector**

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	2.915	6	.486	6.646	.000 <sup>a</sup>
	Residual	1.608	22	.073		
	Total	4.523	28			

a. Predictors: (Constant), GEP, GRS, GC, GTT, GPR, GPM

b. Dependent Variable: EP

**Table 5: Coefficients<sup>a</sup> in RMG sector**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics		
	B	Std. Error	Beta			Tolerance	VIF	
1	(Constant)	.791	.723		1.093	.286		
	GC	.537	.153	.889	3.507	.002	.252	3.972
	GRS	.153	.101	.223	1.509	.146	.738	1.356
	GTT	.218	.125	.319	1.744	.095	.482	2.073
	GPM	-.434	.196	-.583	-2.216	.037	.234	4.281
	GPR	-.084	.088	-.202	-.951	.352	.360	2.778
	GEP	.449	.129	.654	3.496	.002	.462	2.165

a. Dependent Variable: EP

From, it has been found from the regression analysis that the value of R square, which refers to the coefficient of determination, is 0.644. That means that the model fits the data appropriately as the dependent variable EP is explained by 64.4% by independent variables. The statistical significance of the regression model is 0.000, which is less than 0.05. That means all the independent variables can significantly predict the dependent variable EP. Therefore, the null Hypothesis for hypotheses H1 is rejected. That means Green Human Resource Management (GHRM) has a positive impact on Environmental Performance (EP) of the RMG industry in Bangladesh.

#### Regression equation

$$EP = 0.791 + (0.537 * GC) + (0.153 * GRS) + (0.218 * GTT) - (0.434 * GPM) - (0.084 * GPR) + (0.449 * GEP)$$

The value of b coefficient from the above-mentioned coefficient table indicates that how many units of dependent variable increases or decreases for a single unit increase in each independent variable. Here, "1" point increase in Green Culture (GC), corresponds to the "0.537" unit increase in Environmental Performance (EP). Similarly "1" point increase in, Green Recruitment and Selection, Green Training, and Green Empowerment and Participation will correspond to "0.153", "0.218" and "0.449" unit increase in Environmental



Performance (EP) of RMG industry of Bangladesh respectively. But “1” point increase in Green Performance Management and Green Pay and Reward will correspond to “0.434”, “0.084” unit decrease in Environmental Performance (EP) of RMG industry of Bangladesh respectively. Here, Green Culture (GC), Green Performance Management and Green Empowerment and Participation have a statistically significant effect.

According to this table, there is no Multicollinearity in this regression model as the values of VIF for all independent variables falls within the range of 1 to 10. That means there is no interdependency among the independent variables.

**Table 6: Correlations (In RMG sector)**

		EP	GC	GRS	GTT	GPM	GPR	GEP
EP	Pearson Correlation	1	.451*	.309	.443*	.350	.501**	.518**
	Sig. (2-tailed)		.014	.103	.016	.062	.006	.004
	N	29	29	29	29	29	29	29
GC	Pearson Correlation	.451*	1	.061	.115	.745**	.439*	.066
	Sig. (2-tailed)	.014		.749	.546	.000	.015	.731
	N	29	30	30	30	30	30	30
GRS	Pearson Correlation	.309	.061	1	-.041	-.112	.321	.014
	Sig. (2-tailed)	.103	.749		.829	.557	.084	.942
	N	29	30	30	30	30	30	30
GTT	Pearson Correlation	.443*	.115	-.041	1	.237	.609**	.456*
	Sig. (2-tailed)	.016	.546	.829		.208	.000	.011
	N	29	30	30	30	30	30	30
GPM	Pearson Correlation	.350	.745**	-.112	.237	1	.378*	.439*
	Sig. (2-tailed)	.062	.000	.557	.208		.039	.015
	N	29	30	30	30	30	30	30
GPR	Pearson Correlation	.501**	.439*	.321	.609**	.378*	1	.361
	Sig. (2-tailed)	.006	.015	.084	.000	.039		.050
	N	29	30	30	30	30	30	30
GEP	Pearson Correlation	.518**	.066	.014	.456*	.439*	.361	1
	Sig. (2-tailed)	.004	.731	.942	.011	.015	.050	
	N	29	30	30	30	30	30	30

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\* . Correlation is significant at the 0.01 level (2-tailed).

From Pearson correlation coefficient table, it is clear that Green Culture, Green Training, Green Pay and Reward, and Green Empowerment and Participation have a moderate positive relationship with Environmental Performance for RMG industry. Conversely, Green Recruitment and Selection and Green Performance Management have Low Correlation with Environmental Performance for RMG industry which are not significant.

**6. Impact of GHRM practices on EP of Non-RMG industry**

**Table 7: Reliability Statistics (Non-RMG industry)**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.871	.871	7

In this study, Cronbach's Alpha value of GHRM practice of Non-RMG sector is 0.871 which is higher than the standard value of 0.70. It demonstrates a high level of internal consistency for the scale of this sample.

**Table 8: Model Summary for Non-RMG industry**

Model	R	R Square	Adjusted R Square	Std. The error of the Estimate
1	.862 <sup>a</sup>	.744	.677	.35267

a. Predictors: (Constant), GEP, GC, GRS, GPM, GPR, GTT

**Table 9: ANOVA<sup>b</sup> for Non-RMG industry**

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	8.306	6	1.384	11.131	.000 <sup>a</sup>
	Residual	2.861	23	.124		
	Total	11.167	29			

a. Predictors: (Constant), GEP, GC, GRS, GPM, GPR, GTT

b. Dependent Variable: EP

**Table 10: Coefficients<sup>a</sup> (Non-RMG)**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.334	.415		3.214	.004		
	GC	.651	.112	.843	5.793	.000	.526	1.900
	GRS	-.243	.108	-.293	-2.249	.034	.657	1.522
	GTT	-.113	.166	-.139	-.681	.503	.269	3.723
	GPM	.072	.139	.078	.522	.607	.498	2.008
	GPR	-.142	.139	-.194	-1.023	.317	.309	3.235
	GEP	.441	.143	.497	3.089	.005	.430	2.324

a. Dependent Variable: EP

From, it has been found from the regression analysis that the value of R square, which refers to the coefficient of determination, is 0.744. That means that the model fits the data appropriately as the dependent variable EP is explained 74.4% by independent variables which are higher. The statistical significance of the regression model is 0.000, which is less than 0.05. That means all the independent variables can significantly predict the dependent variable EP. Therefore, the null Hypothesis for hypotheses H2 is rejected. That means, Green Human Resource Management(GHRM) has a positive impact on Environmental Performance (EP) of Non-RMG industry in Bangladesh

Regression equation

$$EP = 1.334 + (0.651 * GC) - (0.243 * GRS) - (0.113 * GTT) + (0.072 * GPM) - (0.142 * GPR) + (.441 * GEP)$$

The value of b coefficient from the above-mentioned coefficient table indicates that how many units of dependent variable increases or decreases for a single unit increase in each independent variable. Here, “1” point increase in Green Culture (GC), corresponds to the “0.651” unit increase in Environmental Performance (EP). Similarly “1” point increase in Green Performance Management and Green Empowerment and Participation will corresponds to “0.072” and “0.441” unit increase in Environmental Performance (EP) respectively. But “1” point increase in Green Recruitment and Selection Green Training and Green Pay and Reward will corresponds to “0.243”, “0.113” and “0.142” unit decrease in Environmental Performance (EP) respectively. Here, Green Culture (GC), Green Recruitment and Selection Green Performance Management and Green Empowerment and Participation have a statistically significant effect on Environmental Performance (EP) of Non-RMG industry.

According to this table, there is no Multicollinearity in this regression model as the values of VIF for all independent variables falls within the range of 1 to 10. That means there is no interdependency among the independent variables.

**Table 11: Correlations (Non-RMG)**

		EP	GC	GRS	GTT	GPM	GPR	GEP
EP	Pearson Correlation	1	.744**	.218	.457*	.481**	.309	.536**
	Sig. (2-tailed)		.000	.246	.011	.007	.097	.002
	N	30	30	30	30	30	30	30
GC	Pearson Correlation	.744**	1	.505**	.627**	.436*	.458*	.385*
	Sig. (2-tailed)	.000		.004	.000	.016	.011	.036
	N	30	30	30	30	30	30	30
GRS	Pearson Correlation	.218	.505**	1	.419*	.334	.462*	.417*
	Sig. (2-tailed)	.246	.004		.021	.071	.010	.022
	N	30	30	30	30	30	30	30
GTT	Pearson Correlation	.457*	.627**	.419*	1	.593**	.752**	.584**
	Sig. (2-tailed)	.011	.000	.021		.001	.000	.001
	N	30	30	30	30	30	30	30

GPM	Pearson Correlation	.481**	.436*	.334	.593**	1	.374*	.580**
	Sig. (2-tailed)	.007	.016	.071	.001		.042	.001
	N	30	30	30	30	30	30	30
GPR	Pearson Correlation	.309	.458*	.462*	.752**	.374*	1	.658**
	Sig. (2-tailed)	.097	.011	.010	.000	.042		.000
	N	30	30	30	30	30	30	30
GEP	Pearson Correlation	.536**	.385*	.417*	.584**	.580**	.658**	1
	Sig. (2-tailed)	.002	.036	.022	.001	.001	.000	
	N	30	30	30	30	30	30	30

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

From the Pearson correlation coefficient table, it is clear that Green Culture has strong and Green Training, Green Performance Management, Green Empowerment, and Participation have a moderate positive relationship with Environmental Performance for the RMG industry. Conversely, Green Recruitment and Selection and Green Performance Management have Low Correlation with Environmental Performance for Non-RMG industry which is not significant. Conversely, Green Recruitment and Selection and Green Pay and Reward have Low Correlation with Environmental Performance for Non-RMG industry which is not significant.

**Table 11: Group Statistics**

	GROUP	N	Mean	Std. Deviation	Std. Error Mean
EP	Non RMG	30	3.737500E0	.6205445	.1132954
	RMG	30	4.215476E0	.4060951	.0741425

**Table 12: Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
EP	Equal variances assumed	3.648	.061	-3.53	58	.001	-.4779762	.1353992	-.7490072	-.2069452
	Equal variances not assumed			-3.53	50	.001	-.4779762	.1353992	-.7499350	-.2060174

The result of ANOVA shows that significance is 0.001 which is lower than 0.05. That means the null Hypothesis for H3 is rejected. Therefore, there is a significance difference exists between the Environmental Performance (EP) of the RMG industry and the Environmental Performance (EP) of Non-RMG industries in Bangladesh.

## 7. Conclusions

This study has presented a survey analysis of the impact of Green HRM Practices on Environmental Performance in both RMG and Non-RMG industries existing in Bangladesh. Data analysis reveals that in both RMG and Non-RMG sector there is a positive association between GHRM Practice and Environmental Performance (EP). In both sectors, Green Culture and Green Empowerment and Participation play a great role in increasing Environmental Performance (EP) of the organizations. In the RMG sector Green Culture is strongly and Green Training, Green Performance Management, Green Empowerment and Participation are moderately correlated with EP. Similarly, in Non-RMG sector, Green Culture, Green Training, Green Empowerment and Participation and also Green Pay and Reward are moderately correlated with EP. On the other hand, in both sectors, Green Pay and Reward have negative impacts on Environmental Performance (EP). This study provides some insights into the implementation of GHRM Practices by certain RMG and Non-RMG companies in Bangladesh which should help HR practitioners to acquire a better understanding of the current status to the implementation of GHRM Practices. Further research can be taken by considering other factors like the firm's size, types of training etc.

## 8. References

1. Ahmad, S. (2015). Green human resource management: Policies and practices. *Cogent business & management*, 2(1), 1030817.
2. Aragón-Correa, J. A., & Sharma, S. (2003). A contingent resource-based view of proactive corporate environmental strategy. *Academy of management review*, 28(1), 71-88.
3. Arulrajah, A.A., Opatha H.H.D.N.P., Nawaratne N.N.J. (2015). Green Human Resource Management Practices: A Review. *Sri Lankan Journal of Human Resource Management*, 5(1), 1-16
4. Ayuso, S., Rodríguez, M. A., García-Castro, R., & Ariño, M. A. (2014). Maximizing stakeholders' interests: An empirical analysis of the stakeholder approach to corporate governance. *Business & society*, 53(3), 414-439.
5. Bhutto, S.A., Aurazeb, 2016. Effects of green human resource management on firm performance: an empirical study on Pakistani firms. *Eur. J. Bus. Manag.* 8, 119-125
6. Boiral, O., & Paillé, P. (2012). Organizational citizenship behaviour for the environment: Measurement and validation. *Journal of business ethics*, 109(4), 431-445.
7. Boselie, P., Paauwe, J., & Jansen, P. (2001). Human resource management and performance: lessons from the Netherlands. *International journal of human resource management*, 12(7), 1107-1125.
8. Brammer, S., Millington, A., & Rayton, B. (2007). The contribution of corporate social responsibility to organizational commitment. *The International Journal of Human Resource Management*, 18 (10), 1701-1719.
9. Chan, E. S., & Hawkins, R. (2010). Attitude towards EMSs in an international hotel: An exploratory case study. *International Journal of Hospitality Management*, 29(4), 641-651.
10. Cherian, J., & Jacob, J. (2012). A study of green HR practices and its effective implementation in the organization: A review.
11. Chowdhury, M. S. R., & Islam, M. T. (2015). An analysis of the production function of ready-made garments industry in Bangladesh: a case of tex-town group limited. *International Journal of African and Asian Studies*, 14(1), 1-6.
12. Collins, C. J., & Clark, K. D. (2003). Strategic human resource practices, top management team social networks, and firm performance: The role of human resource practices in creating organizational competitive advantage. *Academy of management Journal*, 46(6), 740-751.

13. Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
14. Creswell, J. (2012). *Education Research: Planning, Conducting and Evaluating Quantitative and Qualitative Research*. Boston, MA: Person Education.
15. Daily, B. F., Bishop, J. W., & Massoud, J. A. (2012). The role of training and empowerment in environmental performance: A study of the Mexican maquiladora industry. *International Journal of Operations & Production Management*, 32(5), 631-647.
16. Daily, B. F., Bishop, J. W., & Steiner, R. (2007). The mediating role of EMS teamwork as it pertains to HR factors and perceived environmental performance. *Journal of applied business research*, 23(1), 95
17. Daily, B. F., & Huang, S. C. (2001). Achieving sustainability through attention to human resource factors in environmental management. *International Journal of operations & production management*, 21(12), 1539-1552.
18. Elkington, J. (2006). Governance for sustainability. *Corporate Governance: An International Review*, 14(6), 522-529.
19. European Green Table. (1997). *Environmental Performance Indicators in Industry*. Report 5: Practical Experiences with Developing EPs in 12 Companies. Norwegian Confederation of Business and Industry: Oslo.
20. Fernández, E., Junquera, B., & Ordiz, M. (2003). Organizational culture and human resources in the environmental issue: a review of the literature. *International Journal of Human Resource Management*, 14(4), 634-656.
21. Gholami, H., Rezaei, G., Saman, M. Z. M., Sharif, S., & Zakuan, N. (2016). State-of-the-art Green HRM System: Sustainability in the sports center in Malaysia using a multi-methods approach and opportunities for future research. *Journal of Cleaner Production*, 124, 142-163.
22. Govindarajulu, N., & Daily, B. F. (2004). Motivating employees for environmental improvement. *Industrial management & data systems*, 104(4), 364-372.
23. Guerci, M., Longoni, A., & Luzzini, D. (2016). Translating stakeholder pressures into environmental performance the mediating role of green HRM practices. *The International Journal of Human Resource Management*, 27(2), 262-289.
24. Harris, L. C., & Crane, A. (2002). The greening of organizational culture: Management views on the depth, degree and diffusion of change. *Journal of organizational change management*, 15(3), 214-234.
25. Harvey, G., Williams, K., & Probert, J. (2013). Greening the airline pilot: HRM and the green performance of airlines in the UK. *The International Journal of Human Resource Management*, 24(1), 152-166.
26. Ichniowski, C., Shaw, K., and Prennushi, G. (1997). The effects of human resource management practices on productivity: a study of steel finishing lines. *American Economics Review*, 87(3): 291-313.
27. Ilinitich, A. Y., Soderstrom, N. S., & Thomas, T. E. (1998). Measuring corporate environmental performance. *Journal of accounting and public policy*, 17(4-5), 383-408.
28. Islam, M. S., Rakib, M. A., & Adnan, A. T. M. (2016). Ready-made garments sector of Bangladesh: Its contribution and challenges towards development. *Stud*, 5(2), 02-12.
29. Jabbar, M. H., & Abid, M. (2014). GHRM: Motivating employees towards organizational environmental performance. *Magnt. Res. Rep*, 2, 267-278.
30. Jose Chiappetta Jabbour, C. (2011). How green are HRM practices, organizational culture, learning and teamwork? A Brazilian study. *Industrial and Commercial Training*, 43(2), 98-105.
31. Jabbour, C. J. C., & Santos, F. C. A. (2008). Relationships between human resource dimensions and environmental management in companies: proposal of a model. *Journal of*

- Cleaner Production*, 16(1), 51-58.
32. Jackson, S. E., Renwick, D. W., Jabbour, C. J., & Muller-Camen, M. (2011). State-of-the-art and future directions for green human resource management: Introduction to the special issue. *German Journal of Human Resource Management*, 25(2), 99-116.
  33. Jackson, S. E., & Seo, J. (2010). The greening of strategic HRM scholarship. *Organization Management Journal*, 7(4), 278-290.
  34. Kapil, P. (2015a). Green HRM-Engaging Human Resource in reducing carbon footprint and enhancing environment sustainability: A case study based approach. *Int. J. Eng. Technol. Sci. Res*, 2, 5-14.
  35. Kapil, K., (2015b). Green HRM: Trends & prospects. *International Research Journal of Management Research*. 1(January), pp.43–55.
  36. Khan, M. O. B. H. (2016). Economic Impact of Rana Plaza Collapse. *International Journal of Mechanical and Industrial Engineering*, 10(2), 594-600.
  37. Kolk, A., & Mauser, A. (2002). The evolution of environmental management: from stage models to performance evaluation. *Business strategy and the environment*, 11(1), 14-31.
  38. Liebowitz, J. (2010). The role of HR in achieving a sustainability culture. *Journal of sustainable development*, 3(4), 50-57.
  39. Mandip, G. (2012). Green HRM: People management commitment to environmental sustainability. *Research Journal of Recent Sciences*, ISSN, 2277, 2502.
  40. Markey, R., McIvor, J., & Wright, C. F. (2016). Employee participation and carbon emissions reduction in Australian workplaces. *The International Journal of Human Resource Management*, 27(2), 173-191.
  41. Mathapati, C. M. (2013). Green HRM: A strategic facet. *Tactful Management Research Journal.*, 2(2), 1–6.
  42. Mehta, K., & Chugan, P. K. (2015). Green HRM in pursuit of environmentally sustainable business. *Pursuit of Environmentally Sustainable Business (June 1, 2015)*. *Universal Journal of Industrial and Business Management*, 3(3), 74-81.
  43. Melville, N. P. (2010). Information systems innovation for environmental sustainability. *MIS Quarterly*, 34(1), 1–21.
  44. Mendelson, H., & Pillai, R. R. (1999). Information age organizations, dynamics and performance. *Journal of Economic Behavior & Organization*, 38(3), 253-281.
  45. Murthy, V. (2008). Corporate social disclosure practices of top software firms in India. *Global Business Review*, 9(2), 173-188.
  46. Opatha, H. H. D. N. P. (2013). Green Human Resource Management A Simplified Introduction.
  47. Paauwe, J., & Boselie, P. (2003). Challenging ‘strategic HRM’ and the relevance of the institutional setting. *Human Resource Management Journal*, 13(3), 56-70.
  48. Prasad, R. S. (2013). Green HRM-partner in sustainable competitive growth. *Journal of Management Sciences and Technology*, 1(1), 15-18.
  49. Quazi, H. A. (1999). Implementation of an environmental management system: the experience of companies operating in Singapore. *Industrial Management & Data Systems*, 99(7), 302-311.
  50. Rakib, M. A., & Adnan, A. T. M. (2015). Challenges of Ready-Made Garments sector in Bangladesh: Ways to overcome. *BUFT Journal*, 3, 77-90.
  51. Ramus, C. A. (2002). Encouraging innovative environmental actions: what companies and managers must do. *Journal of world business*, 37(2), 151-164.
  52. Ramus, C. A. (2001). Organizational support for employees: Encouraging creative ideas for environmental sustainability. *California management review*, 43(3), 85-105.
  53. Ramus, C. A., & Steger, U. (2000). The roles of supervisory support behaviors and environmental policy in employee eco-initiatives at leading-edge European companies. *Acad-*

- emy of Management Journal*. 43,605–626.
54. Renwick, D. W., Redman, T., & Maguire, S. (2013). Green human resource management: A review and research agenda. *International Journal of Management Reviews*, 15(1), 1-14.
  55. Renwick, D., Redman, T., & Maguire, S. (2008). Green HRM: A review, process model, and research agenda. *University of Sheffield Management School Discussion Paper*, 1, 1-46.
  56. Rondinelli, D. A., & Berry, M. A. (2000). Environmental citizenship in multinational corporations: social responsibility and sustainable development. *European Management Journal*, 18(1), 70-84.
  57. Rothenberg, S. (2003). Knowledge content and worker participation in environmental management at NUMMI. *Journal of management studies*, 40(7), 1783-1802.
  58. Russo, M. V., & Fouts, P. A. (1997). A resource-based perspective on corporate environmental performance and profitability. *Academy of management Journal*, 40(3), 534-559.
  59. Soo Wee, Y., & Quazi, H. A. (2005). Development and validation of critical factors of environmental management. *Industrial management & data systems*, 105(1), 96-114.
  60. Sheopuri, A., & Sheopuri, A. (2015). Green HR practices in the changing workplace. *Business Dimensions*, 2(1), 13-26.
  61. Sudin, S. (2011, June). Strategic green HRM: A proposed model that supports corporate environmental citizenship. In *International Conference on Sociality and Economics Development, IPEDR* (Vol. 10, pp. 79-83).
  62. Tariq, S., Jan, F. A., & Ahmad, M. S. (2016). Green employee empowerment: a systematic literature review on state-of-art in green human resource management. *Quality & Quantity*, 50(1), 237-269.
  63. Teixeira, A. A., Jabbour, C. J. C., & de Sousa Jabbour, A. B. L. (2012). Relationship between green management and environmental training in companies located in Brazil: A theoretical framework and case studies. *International Journal of Production Economics*, 140(1), 318-329.
  64. Wehrmeyer, W. (2017). *Greening people: Human resources and environmental management*. Routledge.
  65. Zoogah, D. B. (2011). The dynamics of green HRM behaviors: A cognitive social information processing