THE IMPACT OF GREEN HUMAN RESOURCES MANAGERIAL PRACTICES ON ENVIRONMENTAL SUSTAINABILITY: EVIDENCE FROM GARMENTS INDUSTRY OF BANGLADESH

Farhana Ferdousi Aziz\(^a\)\(^{†}\), Farhana Yasmin\(^a\) and Tahmina Sultana\(^a\)

\(^a\) \Department of Business Administration, Bangladesh University of Professionals, Dhaka, Bangladesh

**ARTICLE HISTORY:**
Received: 16-Dec-2019
Accepted: 02-Mar-2020
Online available: 21-Mar-2020

**Keywords:**
Human resource managerial practices, Green HR managerial practices, Environmental sustainability

**ABSTRACT**
The purpose of this paper is to find out the impact of Green Human Resources managerial practices on environmental sustainability in the garment factories of Bangladesh. A combination of qualitative and quantitative methods is used for data collection. The survey respondents were mid-level HR managers of 60 garment factories located in Gazipur. The regression analysis and ANOVA are applied for empirical investigation. The results revealed that four variables have a significant relationship with the dependent variable and that lack of appropriate measures and knowledge is the main reasons for low environmental sustainability. The research identifies the measures that need to be taken and it also claims that there should be awareness of the significance of environmental sustainability among managers and the workforce to achieve environmental sustainability. This is important for Bangladesh, because environmental sustainability has a positive impact on the economy of the country.

**Contribution/ Originality**
This paper shows the current GHRM practices of the ready-made garment factories in Bangladesh and shows the impact of practices on environmental sustainability. The paper also comes up with the reasons why certain practices have a negative impact. Thus, it will help the government of Bangladesh to know about the practices that need to be continued and improved.

DOI: 10.18488/journal.1007/2020.10.3/1007.3.81.96
ISSN (P): 2306-983X, ISSN (E): 2224-4425

**How to cite:** Farhana Ferdousi Aziz, Farhana Yasmin and Tahmina Sultana (2020). The Impact of Green Human Resources Managerial Practices on Environmental Sustainability: Evidence from Garments Industry of Bangladesh. Asian Journal of Empirical Research, 10(3), 81-96.

© 2020 Asian Economic and Social Society. All rights reserved
1. INTRODUCTION

The management sector of Bangladesh’s garment factories is dealing with a challenging but promising issue of environmentalism which has come into attention due to certain treaties to fight climate change. This environmentalism has pressurized factories to come up with practices and procedures that will help make companies greener. In addition to financial factors, now companies also have prioritize environmental factors and keep a balance between the factors (Al Mamun, 2019). Nowadays environmentalism is being paid a lot of attention by the Department of Human Resources because it has been found that it carries a huge potential in achieving environmental goals. The environmental management aspects have been integrated with Human Resources Management practices, due to which Human Resource Management was named to Green Human Resource Management (GHRM) (Cabral and Dhar, 2019).

GHRM means making human resource greener in term of how they understand, appreciate and practices green initiative all throughout recruiting, hiring, training, etc. GHRM is about the policies, practices that make employees greener, in order to benefit the individual, society, natural environment and the business (Al Mamun, 2019). The functions of GHRM are comprised of Recruitment and Selection, Green Performance Appraisal Method, Training and Development, Employee Involvement and Participation Compensation, Pay and Reward. These functions will be used as the independent variables in the paper. Following are explanations of the variables:

Recruitment and selection: The job descriptions should state the environmental reporting role, health and safety tasks and other environmental impact related roles. The interview should be tailored to measure the potential compatibility of the candidate with the company’s green goals. The orientation programme should be planned to deliver new recruits with information about sustainable development policies and commitments, EMS and green goals of the company.

Green performance appraisal method: Organizations today take HR practices as one of the key indicators to measure the performance of employees. These HR practices include consideration of green issues, environmental protection, pollution control, environmental sustainability and participation and engagement in making the organizational processes and practices greener. Organizations set the criteria of how much green practices should be achieved, goals and responsibilities of each employee and then each employee is appraised based on the criteria.

Training and development: Here training and development basically means green training and this is provided to increase the competencies of employees. Green training is provided by the means of online training, teleconferencing, video call, online course materials, case study, web-based training modules and interactive media. Through these training, the employees are informed about the green initiatives that the company is taking, such as minimizing the emission of greenhouse gases etc.

Employee involvement and participation: To increase the motivation of employees to participate in greening organizations, awareness programs are run. Thus employees should be consuming more flexible working hours, car-pooling, free transportation facilities, telecommuting, eco-friendly product and refuse to use plastic and glass items. This kind of involvement in ecological initiatives and participation in green schemes and program results in a successful green management system.

Compensation, Pay and Reward: Compensation mechanism can be used to motivate employees towards achieving green performance. Companies have introduced benefit packages and award those to employees who display and perform green duties and responsibilities.

The aim of this paper is to find out the type of human resources managerial practices of garment factories in Bangladesh that will help to sustain the environment and to see the actual impact of those practices on environmental sustainability. If the impact is seen to be low and not as
anticipated, then the paper will try to come up with the reasons for this low impact. This paper is significant because Bangladesh is in its early stage of developing environmental sustainability and the concept of green HR is quite new for the HR department of factories. Besides, it is an area that has not been researched much. Therefore, this paper will be beneficial for Bangladesh, which will help to identify the gaps in achieving environmental sustainability. Moreover, environmental sustainability not only reduces carbon footprints and conserve natural resources in the country but also will help to boost the economy of the country. Research has shown that going green has a direct impact on profits of business and truly improves the return on investments. Thus, this paper will serve to be crucial for the government of Bangladesh.

2. LITERATURE REVIEW

There are 3 areas where an organization can focus to undertake Corporate Social Responsibilities. The areas are stakeholders’ interest, general social welfare and environmental concern. It is stated that CSR can be attained through the means of GHRM. Khan (2017) finds out the fundamental HR functions in garment industries in Bangladesh. In total, 13 garments employees and 3 researchers were included for the focus group, which disclosed the major causes for the deviance of HR practice in diverse areas which help to attract foreign buyers, the brand value of the organization, strengthen the employee-management relationship, etc. In organizations, green human resources management practices are applied to achieve competitive advantage. In green human resource management literature, green competencies have grown to an important concept in the recent years. Current literature on green human resource management considers green competencies as a vital obligation for organization to attain environmental performance. Cabral and Dhar (2019) deliver new vision in theory and practice related to an essential GHRM necessity in the organization, i.e., green competencies. The study also comes up with an effective model that fits in the construction of green training and its direct effect on green competencies, which agrees with the theory of the Natural-Resource Based-View. So, the study offers an understanding of the prevailing state-of-the-art in GHRM in the literature.

Aktar and Islam (2019) examined the impact of green HRM practices on employee engagement in garment (RMG) industries. The study revealed that certain human resource practices such as ‘green employee participation’ and ‘green training and development’ are statistically significant to employee engagement and it is seen that they have a big role in making employees become engaged in their jobs. Al Mamun (2019) revealed that most of the HR managers are aware of GHRM, however, still now the appropriate Green HR activities are undertaken in organizations. The main obstacle that HR managers face is the capability of green HRM in adapting their organizations as green unit. Thus, HR managers have to ensure that there is this awareness amid employees and also make sure that the proper environment is maintained and that natural resources are preserved for future generation.

Akhter (2019) seeks to assess the effect that GHRM practices have on Environmental Performance of Ready-Made Garment industry in Bangladesh. Also, it recognizes the variables that could affect the GHRM implementation from the viewpoint of the respondents. The paper shows how HR practices can be used to implement environmental performance successfully, which will assist companies to have a competitive

Yacob et al. (2019) reveal the green initiatives impact on environmental sustainability among manufacturing SMEs in Malaysia. The results show that a number of environmentally sustainable practices are implemented, such as optimization of processes in energy management, waste management and water conservation. The results demonstrate how strongly the managers’ environmental concern mediates the relationship between green initiatives and sustainable green practices, which encourages other SMEs to implement green initiatives.
Gunasekara et al. (2019) focuses the reasons behind the introduction of waste management and it also sees the issues faced in performing and monitoring these practices. It was found out that the reasons why waste management practices were adapted were legal rules and regulations, self-regulation, etc. The main obstructions were the absence of properly approved recyclers in the country and proper regulations from the Board of Investment.

Lately, an increasing consciousness within business communities has been detected regarding the importance of going green and accepting many environmental management methods. Nowadays, GHRM became a vital business plan for the important organizations where Human Resource departments play a dynamic part in going green at the office. The study by Ahmad (2015) focuses upon the several green Human Resource practices pursued by the organizations all over the world and, clarifies the simplified meaning of GHRM. Finally, the paper proposes some potentially productive HR initiatives for green organizations.

Mishra (2017) discovers the status and trials of green human resource management practices in India, an under-researched area. Additionally, it offers a theoretical framework to fill the recognized gaps and shape a sustainable organization. This study highlights the status of green human resource practices such as environmental training, green recruitment, etc. There is ample room for organizations to use GHRM practices to boost pro-environmental behavior of employees. In addition to this, support from top-management and programs that facilitate mutual learning among departments is necessary for quick learning and easy display of green behaviors by employees.

Teixeira et al. (2016) specified that green training is likely to help firms to progress their green supply chain management to collaborate with customers and apply green purchasing. Lastly, the authors have also revealed the main features of green training that can stimulate green supply chain management. Jamali et al. (2015) claims that HRM function has a huge potential that can be utilized to offer companies a stimulating and strong support to CSR strategy design as well as its application and delivery. The paper uses theory and managerial recommendations to determine the potential interfaces between HRM and CSR and how HRM can maintain a systematic and progressive CSR agenda.

Green human resources management is a way of management that ensures the Protection of environment and shows the pattern in which green practices are applied through human resource management. Green human resource management basically tells us to “To defend & improve the human environment for present and future generation has become an imperative goal for mankind.” Bhalla and Mehta (2016) attempt to demonstrate that how important green HRM is for companies to become green and to sustain the environment. Efficiency produced by Green HRM can help cut operational costs and help the industry professionals to understand their Corporate Social Responsibility in an improved manner.

Arulrajah et al. (2015) reveal that literature dealt with HRM by only focusing on certain practices such as, recruitment, training and development, performance evaluation and reward management. HRM has more aspects that can be examined to determine its performance in environmental sustainability. The contribution of this paper lies in broadening the opportunity and depth of green HRM in making sustainable environmental performance of organizations really.

Yu et al. (2020) examine how significantly GHRM assists environmental cooperation with customers and suppliers, and it also refers to the moderating roles of internal green supply chain management (GSCM). The results show that GHRM strongly and positively assists environmental cooperation with customers and suppliers and that the relationships are significantly moderated by internal GSCM. The concept of human resource management is almost unexplored in hotels’ environmentally friendly management. Kim et al. (2019) examine how green human resource management can be utilized to develop develop employees’ eco-friendly behavior and hotels’ environmental performance. This study proposes that hotel top management and HR managers

84
should create green human resource management policies. A study by Ren et al. (2018) tries to have a better understanding of the research opportunities and empirical development regarding the field of GHRM. This comprehensive review provides the strategies to develop the GHRM field for scholars and practicing managers. Longoni et al. (2018) showed how GHRM and GSCM practices have a positive impact on both environmental and financial performance. The study says that GHRM and GSCM have a joint impact on both environmental and financial performance.

As it is seen from the above literature, garments organizations in Bangladesh are not attracted to CSR as it includes losses of some profits. However, it is said that GHRM is the technique through which an organization can implement practices that will assist CSR of the organizations without forgoing profit. Because GHRM initiates environment friendly HR practices that reduces environmental pollution with growth of profit by decreasing cost and wastage. Thus, GHRM should be implemented in factories. Besides, there are additional benefits of GHRM. The above literature show that ‘green employee participation’ and ‘green training and development’ is statistically significant to employee engagement. These consequences suggest that green HRM practices are significant resources to make the employees engage towards their jobs. It also has shown the effect of GHRM practices on Environmental Performance of Ready-Made Garment industry in Bangladesh context. Also, it recognizes the variables that could affect the GHRM implementation. Statistical analysis revealed that there is a statistically positive and significant relationship between GHRM practices and Environmental Performance. The organizations make and apply green human resource management practices to attain competitive advantage. In green human resource management literature, green competencies have grown to an important concept in the recent years. Today, GHRM has become an important issue for human resource departments of companies that are eager to go green.

Based on literature, the following hypotheses are brought up:

2.1. Recruitment and selection
Job descriptions are used to specify the duties and responsibilities that are necessary to do the concerned job successfully. Nowadays, companies have also integrated duties related to environmental sustainability in their job descriptions. Some companies, also make it mandatory in their job descriptions that at least one duty related to sustainability needs to be fulfilled by an employee and perform environmental responsibilities whenever the situation needs. According to HRM experts, this type of recruitment and selection is a valuable start and practice to protect the environment (Arulrajah et al., 2015).

H1: There is a positive relation between Recruitment and Selection and Environmental Sustainability.

2.2. Green performance appraisal method
Measuring employee green performance of a job is one of the important purposes of green HRM. Without this practice any company cannot safeguard the environmental performance (firm level) in long term basis. Evaluation of green performance of an employee must be done as a part of the performance evaluation system of the company. The measurement criteria of employee green performance of the job must be done by keeping the company’s criteria for environmental performance in view. In order to continue having a good environmental performance, companies must start Environmental Management Information Systems (EMIS), environmental audits and environmental performance appraisal (Arulrajah et al., 2015).

H2: There is a positive relation between Green Performance Appraisal Method and Environmental Sustainability.
2.3. Training and development
Training and development makes employees understand how changes in work processes benefit factories achieve sustainability goals and how their job responsibilities and tasks can help attaining those goals. Besides, training and development programmes provides knowledge that is linked directly to an employee’s job responsibilities so that employees know the sustainability-related details of their job activities. Hence, training and development play a crucial role in making environmentally sustainable (Langwell and Heaton, 2016).

H3: There is a positive relation between Training and Development and Environmental Sustainability.

2.4. Employee involvement and participation
The development of green HRM has penetrated into the employee activities. In green HRM, employees are very important in executing corporate environmental management initiatives and programs. Some companies have policies to get the anticipated support of employees in corporate environmental management initiatives. This type of practice is considered as a good practice to increase a company’s environmental performance.

H4: There is a positive relation between Employee Involvement and Participation and Environmental Sustainability.

2.5. Compensation, pay and reward
Compensation, pay and reward is another important component of green HRM. Whether a company will conserve the environment is highly dependent on the reward that employees receive for their green performance. By encouraging managers and non-managerial employees to take corporate environmental management initiatives, green reward management has a big significant role. Company employees are rewarded in two ways. They are either financially or non-financially. Financial rewards include financial incentives, bonuses, cash and non-financial rewards include awards/special recognitions/honors/prizes for good environmental performance (Arulrajah et al., 2015).

H5: There is a positive relation between Compensation, Pay and Reward and Environmental Sustainability.

3. RESEARCH METHODOLOGY
The research is qualitative and is based on primary research as the data used here are all primary data collected through surveys, whose respondents are mid-level managers of Human Resource Management department of garment factories. Top 60 ready-made garment factories in Gazipur were chosen and mid-level HR manager was surveyed from each factory. This sample size is taken to limit the scope of the study. The intention of the research is to reveal the types of human resource practices that garment factories of Bangladesh implement. The dependent variable will be ‘Environmental Sustainability’ and the independent variables that will be used here are recruitment and selection, green performance appraisal methods, green training and development, employee involvement and participation and compensation: pay and reward system.

In this research, for analysis there will be a descriptive data analysis, which will show the mean, standard deviation and the frequency table. At the frequency table, the frequencies will be explained based on the factors. Afterwards, there will be a regression model, through which the researchers will try to find out whether the independent variables have the ability to explain the dependent variable and the degree and pattern of the relationship between environmental sustainability and the dependent variables. Thus, based on the observation, the research equation will be:
\[ ES_i = \alpha + \beta_1BRS_i + \beta_2GPAM_i + \beta_3GTD_i + \beta_4EIP_i + \beta_5CPR_i + e_i \]

The description of the variables is given below:

| Determinants                        | Explanation                                                                                                                                                                                                 |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ES - Environmental Sustainability   | This variable is based on water footprint that Bangladesh’s garment factories produce. The international benchmark of water footprint is 100 litres of water for 1kg of fabric. So, in this research a factory will be considered environmentally sustainable, only if follow the standard. |
| RS - Recruitment and selection      | The job descriptions state the duties, tasks and responsibilities that will help to conserve the environment and not pollute it. The interviews cover issues regarding environmental sustainability and examine the candidate’s ability to achieve environmental goals. The orientation programme informs new recruits about the policies of sustainable development and the green goals that should be attained. |
| GPAM - Green performance appraisal methods | In performance appraisal methods organizations count in green HR practices as one of the criteria evaluating employees’ performance. The green HR practices include adaptation of green issues, making awareness of environment protection, etc. |
| GTD - Green Training and Development | The training is provided through online training, teleconferencing, video call, etc. Such a training program will also inform employees about the initiatives undertaken by companies, such as, minimizing the emission of greenhouse gases etc. |
| EIP - Employee Involvement and Participation | Organizations run environmental awareness program to motivate employees to use flexible working hour, car-pooling, free transportation facilities, telecommuting, etc. It leads to an increase in employee participation in green management system. |
| CPRS - Compensation: Pay and Reward System | Compensation mechanism can be used to motivate employees towards achieving green performance. Companies have introduced benefit packages and award those to employees who display and perform green duties and responsibilities. |

4. ANALYSIS AND DISCUSSIONS

A descriptive statistic is a summary that describes the data concerned in the research in a statistical manner. Here, in Table 1, the dependent variable ‘Environmental Sustainability’ has a mean of 0.10, which implies that most of the garment factories researched in the paper does not have environmental sustainability. This dependent variable has a standard deviation of 0.303. This value says there are a few factories that are environmentally sustainable.

| Table 1: Descriptive statistics of the variables | Mean  | Std. Deviation | N  |
|------------------------------------------------|-------|----------------|----|
| ES                                              | 0.100 | 0.303          | 60 |
| RS                                              | 3.026 | 1.050          | 60 |
| GPAM                                            | 1.058 | 0.380          | 60 |
| GTD                                             | 2.466 | 0.472          | 60 |
| EIP                                             | 1.506 | 0.439          | 60 |
| CPR                                             | 0.869 | 0.293          | 60 |

Although most factories do not have environment sustainability, there are times when factories follow some effective recruitment and selection practices, such as, their job descriptions specify health and safety tasks, through employment interview the candidate’s ability to meet the company’s green goals is measured, new recruits is provided with information about sustainability development.
policies and commitment, employer's commitment to ecology is communicated during recruitment, etc. This can be referred from the mean value of the variable ‘Recruitment and Selection’ which is 3.03. In the case of this variable, the standard deviation is 1.05, which implies that there a number of factories that either ‘very often’ carry out the above recruitment and selection practices or ‘rarely’ carry out the practices. Thus, there are some variation from the mean and the mainstream. ‘Green Performance Appraisal Method’ has a mean of 1.06. From the research, it can be concluded that there is an inclusion of ecological criteria in the performance appraisals in almost all the garment factories concerned however, there is a very low emphasis on the implementation of performance appraisals. This explains the mean value of the ‘Green Performance Appraisal method’ variable. In the case of this variable, the standard deviation is very low, which is 0.38, which means that there are very few factories that give a higher emphasis on the green performance appraisal method than the rest of the factories in concern. The mean 2.47 of the variable ‘Training and Development’ says that almost all factories are indifferent to look for employees’ individual needs in case of ecological training and that there is a need for ecological training in garment factories. They neither agree nor disagree that they should include ecological training in the developing process of employees. Yet nearly all factories have practices like online training, teleconferencing, video call, etc. In this case, the variation is pretty low which 0.47 is. Thus there are some garment factories that agree that there should be ecological training for employees. In case of ‘Employee Involvement and Participation’ the mean is 1.50. Almost all factories have the practices of recycling, motivating others to participate, avoiding use of plastic and glass items and so on. But, nearly all factories either never or rarely have flexible working hours, have the practices of car-pooling and tele-commuting. Thus, employee involvement and participation in green practices are very low. Again for this variable, the standard deviation is 0.44, which suggests that most factories either never or rarely have employee involvement and participation practices except some. Most of the factories agree that there should be creation of positions responsible for environmental management and most of them have a system of compensation mechanism to drive employees towards green performance, non-financial benefit packages and bonuses for showing green related performance. Yet, no factories take measures against the employees breaking environmental sustainability rules. This explains why ‘Compensation, Pay and Reward’ has a mean of 0.87. For this variable the standard deviation is 0.29, which implies that most factories do not have strict compensation, pay and reward mechanisms except a few.

In the frequency column of Table 2, 10 is the highest number. This number says that 10 out of the total 60 or the majority of the factories have a value of 2.57 in recruitment and selection. This implies that the majority of the factories only ‘sometimes’ specify health and safety tasks in their job descriptions, gauge the potential compatibility of the candidate with the company's green goals in their employment interview, etc. 2 is the smallest number in the frequency column. There are 2 factories which have a value of 4.29 and there are other 2 factories that have a value of 4.57. Thus, in total 4 factories very often have the above recruitment and selection practices followed in their factories.

Table 2: Recruitment and selection

| Valid | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|---------|---------------|--------------------|
| 1.57  | 6         | 10.0    | 10.0          | 10.0               |
| 2.14  | 3         | 5.0     | 5.0           | 15.0               |
| 2.29  | 8         | 13.3    | 13.3          | 28.3               |
| 2.43  | 4         | 6.7     | 6.7           | 35.0               |
| 2.57  | 10        | 16.7    | 16.7          | 51.7               |
| 2.71  | 4         | 6.7     | 6.7           | 58.3               |
| 2.86  | 5         | 8.3     | 8.3           | 66.7               |
| 3.00  | 2         | 3.3     | 3.3           | 70.0               |
| 4.00  | 6         | 10.0    | 10.0          | 80.0               |
In Table 3, titled, Green Performance Appraisal Method, the highest number in the frequency table is 31. Thus, 31 factories have low emphasis on green performance appraisal methods, yet, they include ecological criteria in performance appraisals. There are only 2 factories that have medium emphasis on green performance appraisal methods and also includes ecological criteria in performance appraisals.

Table 4: Training and Development

In Table 4, twenty-two factories disagree that there employee needs regarding ecological training needs to be found and that ecological training has to be available for employees if required. However, they provide online training, teleconferencing and video call. Two factories almost agree to the fact that employee needs need to be identified and that ecological training should be available for employees to strengthen knowledge and skills. Besides, they also provide online training, teleconferencing and video call.

Table 5: Employee involvement and participation
In Table 5, seventeen factories recycle, motivating others to participate, avoid use of plastic and glass items and undertake other ways as a means of employee involvement and participation. Out of these 17 factories some have no employee involvement and participation at all. These factories rarely have reduced transportation costs, flexible working hours, car-pooling, free transportation facilities and so on. Out of the 60 factories, only 1 almost sometimes have reduced transportation costs, flexible working hours, car-pooling, free transportation facilities, etc.

### Table 6: Compensation pay and reward

| Valid | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|---------|---------------|--------------------|
| 0.17  | 1         | 1.7     | 1.7           | 1.7                |
| 0.33  | 6         | 10.0    | 10.0          | 11.7               |
| 0.50  | 2         | 3.3     | 3.3           | 15.0               |
| 0.67  | 5         | 8.3     | 8.3           | 23.3               |
| 0.83  | 18        | 30.0    | 30.0          | 53.3               |
| 1.00  | 21        | 35.0    | 35.0          | 88.3               |
| 1.17  | 2         | 3.3     | 3.3           | 91.7               |
| 1.33  | 1         | 1.7     | 1.7           | 93.3               |
| 1.50  | 4         | 6.7     | 6.7           | 100.0              |
| Total | 60        | 100.0   | 100.0         |                    |

In Table 6, twenty one factories feel that there should be assigned people who will be responsible for managing the environment. They have a system of compensation mechanism to drive employees towards green performance, a reliable system that will take steps against those breaking rules of ecological conduct, they provide non-financial benefit packages and bonuses. However, they rarely implement actions against employees breaking the rules of environmental protection. Only one company sometimes implements actions against employees breaking the rules of environmental sustainability. Otherwise the other practices are the same as the majority.

### Table 7: Pairwise correlations of variables

|         | ES     | RS     | GPAM   | TD     | EIP    | CPR    |
|---------|--------|--------|--------|--------|--------|--------|
| Pearson |        |        |        |        |        |        |
| GPAM    | 0.390  | 0.865  | 1.000  | 0.648  | 0.705  | 0.475  |
| GTD     | 0.301  | 0.787  | 0.648  | 1.000  | 0.706  | 0.305  |
| EIP     | 0.320  | 0.826  | 0.705  | 0.706  | 1.000  | 0.558  |
| CPR     | 0.022  | 0.389  | 0.475  | 0.305  | 0.558  | 1.000  |
| Sig. (1-tailed) | |        |        |        |        |        |
| ES      | .      | 0.015  | 0.001  | 0.010  | 0.006  | 0.433  |
| RS      | 0.015  | .      | 0.000  | 0.000  | 0.000  | 0.001  |
| GPAM    | 0.001  | 0.000  | .      | 0.000  | 0.000  | 0.000  |
| GTD     | 0.010  | 0.000  | 0.000  | .      | 0.000  | 0.009  |
| EIP     | 0.006  | 0.000  | 0.000  | 0.000  | .      | 0.000  |
| CPR     | 0.433  | 0.001  | 0.000  | 0.009  | 0.000  | .      |

**Note:** N = 60

The Pearson, r, varies between a range of -1, a perfect negative correlation, and 1, perfect positive correlation. In the Table 7, the independent variable that has the strongest relation with the dependent variable, ‘Environmental Sustainability’, is ‘Green Performance Appraisal Method’. It
has a correlation coefficient of 0.39, which means it has a positive relation with the dependent variable, which means that if green performance appraisal method increases then environmental sustainability will also increase. However, it has some variations along the line of best fit. The weakest relation is between ‘Compensation, Pay and Reward’ and the dependent variable with a ‘r’ value of 0.022. This value also has a positive relation with the dependent variable but it has more variations along the line of best fit. This implies that the relation is not very strong, but an increase in compensation, pay and reward will result in an increase in environmental sustainability.
Table 8: Sensitivity analysis of variables

| Variables | Unstandardized Coefficients | Standardized Coefficients | 95% Confidence Interval for B | Correlations |
|-----------|-----------------------------|---------------------------|-------------------------------|--------------|
|           | Coefficient | Std. Error | Coefficient | T | Sig. | Lower Bound | Upper Bound | Zero-order | Partial | Part |
| (Constant)| -0.352       | 0.208       |              | -1.690 | 0.097 | -0.769 | 0.065 |            |          |      |
| RS        | -0.264       | 0.096       | -0.917       | -2.749 | 0.008 | -0.457 | -0.072 | 0.281 | -0.350 | -0.312 |
| GPAM      | 0.675        | 0.193       | 0.849        | 3.496  | 0.001 | 0.288  | 1.062  | 0.390 | 0.430  | 0.397  |
| GTD       | 0.126        | 0.120       | 0.197        | 1.051  | 0.298 | -0.115 | 0.368  | 0.301 | 0.142  | 0.119  |
| EIP       | 0.386        | 0.161       | 0.561        | 2.397  | 0.020 | 0.063  | 0.709  | 0.320 | 0.310  | 0.272  |
| CPR       | -0.410       | 0.153       | -0.397       | -2.680 | 0.010 | -0.718 | -0.103 | 0.022 | -0.343 | -0.304 |

Note: Dependent Variable-Environmental Sustainability
Table 8, Recruitment and selection has a t-value of -2.749 which implies that ‘Environmental Sustainability’ is highly sensitive to recruitment and selection and because it has a negative sign, this means that if recruitment and selection increases, then environmental sustainability will decrease. Besides, the relation is highly statistically significant, as p-value is lesser than 0.01, which is 0.008. Therefore, the null hypothesis can be rejected. Thus, there is a relation between ‘Environmental Sustainability’ and ‘Recruitment and Selection’. The variable ‘Green Performance Appraisal Method’ has a t-value of 3.496, thus it is positively and highly sensitive to the dependent variable and an increase green performance appraisal method will increase environmental sustainability. It is statistically significant with a p-value of 0.001, which is less than 0.01. In this case also, the null hypothesis can be rejected and thus there is a relation between the two variables. ‘Training and Development’ has a t-value of 1.051, which is positive and not very highly sensitive to the dependent variable. Its p-value is 0.298 which means that it is not statistically significant with ‘Environment Sustainability’. For this variable, the null hypothesis cannot be rejected. Thus, there is no relation between training and development and environmental sustainability. ‘Employee Involvement and Participation’ have a t-value of 2.397, which states that it is positively and highly sensitive to the dependent variable. It is statistically significant because it has a p-value of 0.020. Thus, null hypothesis can be rejected. ‘Compensation, Pay and Reward’ has a t-value of -2.680, which is negative and highly sensitive to the dependent variable. The relation is statistically significant as its p-value is 0.01. Again the null hypothesis can be rejected.

Table 9: Model summary

| Model | R    | R²   | Adjusted R² | Std. Error | ΔR²  | ΔF   | df1 | df2 | Sig. ΔF |
|-------|------|------|-------------|------------|------|------|-----|-----|---------|
| 1     | 0.551| 0.303| 0.239       | 0.264      | 0.303| 4.701| 5   | 54  | 0.001   |

Notes: Predictors: (Constant), RS, GTD, GPAM, EIP, CPR

The adjusted R square is 0.239, in Table 9, which means that 23.9% of the dependent variable is explained by the independent variables.

Table 10: ANOVA

| Model | Sum of Squares | df | Mean Square | F    | Sig. |
|-------|---------------|----|-------------|------|------|
|       | Regression    | 1.638 | 5 | 0.328 | 4.701 | 0.001 |
| 1     | Residual      | 3.762 | 54 | 0.070 |       |       |
|       | Total         | 5.400 | 59 |       |       |       |

Notes: Dependent Variable: Environmental Sustainability
Predictors: (Constant), RS, GTD, GPAM, EIP, CPR

From, the F-value, i.e. 4.701, in Table 10, we can say that the relation between the dependent and independent variables is significant. Besides, from seeing the value in the ‘Significance’ column, which is 0.001, we can again claim the relation is highly statistically significant, as it is below the p-value 0.01.

5. FINDINGS

In the analysis above, it is seen that the t-value of the variable ‘Recruitment and Selection’ is -2.749 and its significance is 0.08. Thus, the relation is negative and statistically significant. However, the relation was expected to be positive and statistically significant, which proved to be wrong. The first main reason is that, there is a recruitment process in all garment factories, however, in most cases, a green approach is not followed, which will emphasize health and safety issues. Secondly, it is seen that sometimes factories do bring in green issues in recruitment and selection, based on which people are recruited. However, whether newly recruited employees are undertaking green practices is no
more ensured by management. Thirdly, there is a lot of favoritism working when recruiting people. People are recruited based on close relationships with the management, rather than on their capability to achieve green goals of factories. Finally, there is a common phenomenon of third world countries, which are lack of education and awareness. Due to this lack, management lags behind in making employees understand the importance of making the environment sustainable. Thus employees do not feel the urge to undertake green HR practices.

The variable ‘Green Performance Appraisal Method’ has a t-value of 3.496, which shows a strong positive sensitivity towards ‘Environmental Sustainability’. Besides, it is also statistically significant with a p-value of 0.001. Firstly, most factories have an ecological criteria in their performance appraisals. Thus, employees are appraised based on their environmental responsibilities and this creates a pressure on employees to perform satisfactorily. Although, it is seen that most factories exert a low emphasis on green performance appraisal method, there is still a big percentage of factories that are recently giving a lot of importance to the concerned appraisal method. In this paper, it has been observed that 30% of the 60 factories give a moderate to high emphasis on green performance appraisals. So, the situation of green performance appraisal is improving day by day.

In case of ‘Training and Development’, its correlation, r = 0.301, and t-value, 1.051, shows a positive relation and positive impact on ‘Environmental Sustainability’. However, the significance level, p-value = 0.298, is not statistically significant, which shows that the null hypothesis cannot be rejected. Thus, there is no relation between ‘Training and Development’ and the dependent variable. The correlation between the 2 variables is not very strong to be significant. The main reason is that most factories do not agree that there is need for ecological training. Environmental awareness is not created among employees through seminars and workshops and employees are not explained about the importance of achieving good environmental performance. Moreover, no environmental education is provided, that will cause a change in attitude and behavior among managers and non-managerial employees.

‘Employee Involvement and Participation’ is positively sensitive to the dependent variable and highly significant with a p-value of 0.020. In the case of this variable, ‘Green Performance Appraisal Method’ and ‘Training and Development’ has a big role in making it have a positive impact on ‘Environmental Sustainability’. HR practices increase ecological literacy among employees that lead them to pro-environmental related involvement and participation. According to the research, it is apparent that almost all the factories perform recycling, motivate others to participate in Green HR tasks, avoid use of materials that are hazardous to the environment, like plastic, and perform other green HR practices.

‘Compensation, Pay and Reward’ has a negative t-value of -2.680 and a significance level of p-value = 0.01. Again, the variable has a negative relation with the dependent variable and the relation is statistically significant. The reason why the variable is negatively related is because there is no strict system of taking actions against employees who break environmental sustainability rules. There are rewards, such as bonuses and non-financial benefit packages for achieving environmental goals but there are no measures against the breaching of environmental protection. Thus, the workforce is not pressurized to conform to environmental responsibilities. Again the recruitment and selection process can be blamed for this. Many companies do not mention the ecological duties in the job descriptions and besides many employees get employed based on their relations with the management, regardless of their knowledge on environmental sustainability. Thus, this explains the negative relation between ‘Compensation, Pay and Reward’ and ‘Environmental Sustainability’.
6. CONCLUSION

It is a fact that human resource is the most vital strength of a company that has a central role in managing the employees. At the moment, the current increased tendency of factories concentration on making the business green, the contemporary HR managers have been provided with an extra charge of including the Green HR viewpoint in company’s mission statement, in addition to, HR policies. Globally, green HR initiatives have brought about increasing efficiency, cost reduction, etc.

This is the reason why the paper focuses on the types of green human resources managerial practices in garment factories and its impact on environmental sustainability. From the paper, several findings were revealed. Firstly, management does not ensure that whether green HR practices are implemented or not in factories. Secondly, there is plenty of favoritism working when recruiting people. People are recruited based on close relationships with the management, rather than on their capability to achieve green goals of factories. Thirdly, there is a common phenomenon of third world countries, which are lack of ecological education and awareness. Fourthly, management does not take any actions against the breaching of environmental practices.

The focus of this research is to show the degree of the impact of green HR managerial practices on environmental sustainability and reveal the gaps due to which environmental sustainability is not established successfully. If the gaps are worked on, the country will surely turn into a successful economy and an environmentally sustainable Bangladesh.

**Funding:** This study received no specific financial support.

**Competing Interests:** The authors declared that they have no conflict of interests.

**Contributors/Acknowledgement:** All authors participated equally in designing and estimation of current research.

Views and opinions expressed in this study are the views and opinions of the authors, Asian Journal of Empirical Research shall not be responsible or answerable for any loss, damage or liability etc. caused in relation to/arising out of the use of the content.

**Reference**

Ahmad, S. (2015). Green human resource management: Policies and practices. *Cogent Business & Management*, 2(1), 1-13. Available at: http://dx.doi.org/10.1080/23311975.2015.1030817.

Akhter, N. (2019). Assessing the impact of green human resources management on environmental performance in the context of Bangladeshi garment industry. In International Scientific Conference: Sustainability of Global Garment Industry. Ahsanullah University of Science and Technology, March 5-7. Dhaka: Ahsanullah University of Science & Technology. p. 51-65.

Aktar, A., & Islam, Y. (2019). Green Human Resource Management Practices and Employee Engagement: Empirical Evidence from RMG sector in Bangladesh. *SSRN Electronic Journal*, Working Paper. doi.org/10.2139/ssrn.3363860.

Al Mamun, M. A. (2019). An analysis of employee awareness on green human resource management practices: evidence from Bangladesh. *Human Resource Management Research*, 9(1), 14-21. DOI: 10.5923/j.hrmr.20190901.03.

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.

Bhalla, R., & Mehta, P. (2016). Green Hr: The Essence for Sustainability in the 21st Century. *International Journal of Human Resource Management and Research*, 6(1), 1-6.

Cabral, C., & Dhar, R. L. (2019). Green competencies: construct development and measurement validation. *Journal of Cleaner Production*, 235, 887-900.

Gunasekara, A. D., Neranja, P. L. N., Karunaratne, H. M. M. S., Ravihansi, B. K. P., Buddhika, A. O. M. S., Wijekoon, W. M. D. W., Weerathunga, N. D., Chanika, P. G. S., Jayasighe, W. T., & Sibera, A. S. K. P. H. (2019). *Evolution of waste management practices: a case study of a
leading apparel company in Sri Lanka. Available at: https://pdfs.semanticscholar.org/9e71/d7a57209fe25a8f86a3a1452fd3ee6c991.pdf.

Jamali, D. R., El Dirani, A. M., & Harwood, I. A. (2015). Exploring human resource management roles in corporate social responsibility: The CSR-HRM co-creation model. Business Ethics: A European Review, 24(2), 125-143.

Khan, M. (2017). The practice of basic HR functions in garments industry in Bangladesh: Focus group finding. Journal of Management & Sustainability, 7, 120-132. doi.org/10.5539/jms.v7n3p120.

Kim, Y. J., Kim, W. G., Choi, H. M., & Phetvaroon, K. (2019). The effect of green human resource management on hotel employees’ eco-friendly behavior and environmental performance. International Journal of Hospitality Management, 76, 83-93.

Langwell, C., & Heaton, D. (2016). Using human resource activities to implement sustainability in SMEs. Journal of Small Business and Enterprise Development, 23(3), 652-670. doi.org/10.1108/jsbed-07-2015-0096.

Longoni, A., Luzzini, D., & Guerci, M. (2018). Deploying environmental management across functions: the relationship between green human resource management and green supply chain management. Journal of Business Ethics, 151(4), 1081-1095.

Mishra, P. (2017). Green human resource management: A framework for sustainable organizational development in an emerging economy. International Journal of Organizational Analysis, 25(5), 762-788.

Ren, S., Tang, G., & Jackson, S. E. (2018). Green human resource management research in emergence: A review and future directions. Asia Pacific Journal of Management, 35(3), 769-803. doi.org/10.1007/s10490-017-9532-1.

Teixeira, A. A., Jabbour, C. J. C., de Sousa Jabbour, A. B. L., Latan, H., & De Oliveira, J. H. C. (2016). Green training and green supply chain management: evidence from Brazilian firms. Journal of Cleaner Production, 116, 170-176. doi.org/10.1016/j.jclepro.2015.12.061.

Yacob, P., Wong, L. S., & Khor, S. C. (2019). An empirical investigation of green initiatives and environmental sustainability for manufacturing SMEs. Journal of Manufacturing Technology Management, 30(1), 2-25. doi.org/10.1108/jmtem-08-2017-0153.

Yu, W., Chavez, R., Feng, M., Wong, C. Y., & Fynes, B. (2020). Green human resource management and environmental cooperation: An ability-motivation-opportunity and contingency perspective. International Journal of Production Economics, 219, 224-235. doi.org/10.1016/j.ijpe.2019.06.013.