

# Perceived Role Of Green Human Resource Management Practices Towards Employees Pro-Environmental Behavior: Examining The Moderating Role Of Environmental Knowledge

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## Abstract

The study was mainly conducted to check the impact of perceived green human resource management practices on employee's pro-environmental behavior, in the presence of moderating role of environmental knowledge, in banking industry, Kabul, Afghanistan. This means, green recruitment and selection, green training and development, green performance management was employed as the GHRM-practices and independent variables for this study, employee's pro-environmental behavior employed as the dependent variable, and environmental knowledge as moderator in this study. The sample of the respondents comprises of 351 with constitute of 70% of total population. The respondent demographic questions were mainly consisted of (gender, age, education, experience, and department). To collect data, adapted questionnaire was entertained, through Likert scale (1) strongly disagree, (2) disagree, (3) neutral, (4) agree, (5) strongly agree and time series method was used. The study targeted different selected manufacturing industries working in the capital of Afghanistan. The study found, positive correlation of all variables, and found positive significant influence of independent variables on the dependent variable. This study also found moderating role of environmental knowledge between GRS, GTD, GPM and EPEB). This means, that positive significant influence of selected variables found in this study. Moreover, the study used SPSS .25 and AMOS .17 as the statistical tools to perform different test aimed to explore the results and findings for this research work. Due to the extensive importance of organizational sustainability, and employee's environmental behaviour, this study recommends the implementation of green human resources practices in manufacturing industry in Afghanistan.

**Keywords:** GHRM-Practices (GR&S, GT&D, and GPM), Employees Pro-Environmental Behavior, Green Knowledge.

## Introduction

Today, researches recognized that employees are widely considered to have positive significant role in organizational greening by engaging in variety of pro-environmental behaviors (Lulfs & Hahn, 2013). Environmental management got increased interest and it is potential benefits to

industries are clearly felt (Zibarras & Coan, 2015; Nisar et al., 2021). Researchers such as (Zsoka et al., 2013; Ercantan, & Eyupoglu, 2022), believe that climate change, increasing resource scarcity, and environmental pollution all advanced at an alarming situation in recent decades, that is why organizations need to consider that the world are stepping up their

environmental efforts. Many organizations developed environmental specific department to facilitate green behavior and many pro-environmental efforts has been performed at different corporate level (Robertson & Barling, 2013). Alongside, to consider environmental issues, it is also critical to look into employee's pro-environmental behaviors (Vicente-Molina, FernandezSainz, & IzagirreOlaizola, 2013; Ercantan, & Eyupoglu, 2022). Many research studies, confirmed that employee's pro-environmental behavior are regarded as the most essential contributors to the organizational and corporate level that leads to significant outcomes such as environmental performance (Muisyo et al., 2022). Employees, environmental behavior not only results to the natural environment but also for the significant performance of organizations, and their members (such as, effectiveness of the leaders, employee's commitment to the job, and employees job satisfaction (Norton et al., 2015). Moreover, research scholars have acknowledged essentials and relevance of employee's pro-environmental behaviors and activities in recent years, resulting in a growing body of knowledge (Norton et al., 2015). Furthermore, researchers such as, (Paille, Chen, Boiral, & Jin, 2014; Dumont, Shen, & Deng, 2017; Kautish & Sharma, 2020), along past research studies, many environmental issues remain unsolved. As Dumont, Shen, and Deng (2017), suggested that one interesting research area can be to explore the relationship between green HRM –Practices and employee's pro-environmental behavior (Ercantan, & Eyupoglu, 2022).

Some researchers also confirm, that human resource management practices can assess and impacts employee environmental behavior, their attitude, motivation and knowledge (Jabbour et al., 2013). As a result, organizations can utilize human resource management practices to deliver the right issue and implement environmental related friendly policies toward more success

(Muisyo et al., 2022). To promote employee's environmental behavior, managing performance, organizational commitment, supervisor support and human resource practices are required as a clear way to support creativity and innovation (Provasnek, Sentic & Schmid, 2017). According to research study by (Tang et al., 2018), green human resource management actually refers to human resource management practices that further promote employees' environmentally friendly resources use that could lead to strengthen the cause of environmental performance in common and to increase employee's awareness and commitment toward environmental management practices (Muisyo et al., 2022). Also another researcher confirms that green human resource management practices assure environmental safety (Jabbour & Santos, 2008). Green human resource management practices assist organizations in enhancing their green workplace to be able in recognizing and grasping green projects (Mishra, 2017). Furthermore, green human resource management practices integrate across the HRM processes which are mainly planning (staffing) / or recruitment and selection, training and development of employees, salary administration, performance appraisal, with key goals maintaining green organizational objectives (Jabbour & Santos, 2008). Furthermore, green human resource management practices are considered to be the most contributed toward the extent of increasing social standards (work life balance), and economic growth (sustainable profitability), and addition to these green human resource management practices strongly supports environmental concerns and awareness such as reducing wastages (Muisyo et al., 2022).

Moreover, in recent years, unpreventable changes in the organizational and natural environment, the increasing prevalence of environmental pollution, the devastation of environmental system, and the implementation

of environmental laws have put more pressure on organization to make deliberate efforts to minimize negative influence on the environment (Ahmad, 2015). A group of researchers such as (Paille, Chen, Boiral, & Jin, 2014), confirms that due to the stakeholder's stress placed even by larger communities all industrial and manufacturing sector is pushed to enhance employee's environmental performance by acting and behaving environmentally and socially sustainable and responsible employees (Ardito & Dangelico, 2018). As a result, manufacturing sector not only in Afghanistan, but around the world, have launched a plenty of pro-environmental activities (Zibarras & Coan, 2015). Moreover, almost all types of organization are facing with a challenge that how to establish human resource management practices that lead to the adaptation of long-term employee's pro-environmental behavior (Saeed et al., 2019). For some researchers, it is unsurprisingly findings that in some organization employee's behaviors are in such a way that causes resources depletion, waste of resources, from water to air, persistent utilization of electricity, increasing carbon to the workplace, where these affects climate change and has implications in environment where employees work at the end cusses well-being (Robertson & Barling, 2013; Lehman & Geller, 2004). Most of the researchers stated that increased global intention and interest has been made on environmentalism, which addresses environmental change (Renwick et al., 2013; Fernando et al., 2019; Jabbour et al., 2013; Pinzone et al., 2016). Both, customers and employees are demanding for greater environmental responsibility from manufacturing companies (Boiral et al., 2018). In addition, social responsibilities also consider that business organizations need to shift from traditional models into green models by generating and implementing green related

activities into their manufacturing operations (Wagner, 2011).

Furthermore, some academics also argue that employee's pro-environmental behavior are equivalent with the term green behavior (Wang, 2016; Osbaldiston & Schott, 2012). It is also stated, that employees who explains demonstrable green behavior should have promoted (Ones & Dilchert, 2012). Furthermore, organizations can improve their employee's environmental performance by expanding reach of their green human resource management practices (Yadav, & Ramaswamy, 2020). In other hand, the incorporation of sustainability strategies into organizational operation receiving greater attention of the researchers than ever before (Chillakuri & Vanka, 2020). Today, almost all type of organizations understanding of all sort of environmental issues, and one of the most critical breakthroughs in sustainability has occurs as a result (Severo et al., 2017; and Nejati et al., 2017). According to some researchers, good governance and human resource management are the two most essential factors that ensures an organization long term viability and existence (Dumont et al., 2017; Ubeda-Garacia et al., 2021). Green human resource management practices are those having influence on environmental behavior of individuals (Kramar, 2014). Researches, states that it refers to GHRM practices as well as green employee's management, which attempts to boost and foster pro-environmental behaviors of employees at work via a range of activities (Renwick et al., 2013). Other research studies, have explored the impact of green human resource management on employee's green behavior (Su & Swanson, 2019; Ahmed et al., 2020; Hameed et al., 2020). Thus, in this study we mainly focused on the following mentioned research questions;

**RQ1:** What is the influence of green recruitment & selection on employee's pro-

environmental behavior in manufacturing sector?

**RQ2:** What is the influence of green training & development on employees' pro-environmental behavior?

**RQ3:** What is the influence of green performance management on employee's pro-environmental behavior?

**RQ4:** Does employee's environmental knowledge moderate the relationship between green recruitment & selection and employee's pro-environmental behavior?

**RQ5:** Does employee's environmental knowledge moderate the relationship between green training & development and employee's pro-environmental behavior?

**RQ6:** Does employee's environmental knowledge moderate the relationship between green performance management and employee's pro-environmental behavior?

### **Theory, and Hypothesis Development**

Ability, Motivation, Opportunity (AMO) Theory

Many research studies exist and measured the quality of human resource management practices where a company follows to practice for their goal attainment (Bos-Nehles et al., 2005; Wright, et al., 2001). One of the main questions addressed is how these companies effectively implementing human resource management practices (Huselid et al., 1997; Gratton & Truss, 2003). Although, there is enough evidence on the effectiveness of human resource management and the determinants that is more than just a good human resource practices in the contextual manner organizations need to implement all these practices which are applied for critical reaching to the main purpose of the project (Wright & Nishii, 2006; Iftikar et al., 2022). To ensure effectiveness of human resource management practices many

researchers recommend AMO theory (Boxall & Purcell, 2003), frequently used with human resource management practices. According to (Paauwe, 2009), ability, motivation, opportunity theory guides the perfect selection of human resource management practices. (Abbas et al., 2022), claims the use of AMO theory which results effective in an organization. From many research studies it is now clear, that human resource management practices can impact individual's ability to take active contribution toward business performance.

Researchers addresses human resource management literature containing numerous examples of line managers with insufficient abilities related to HRM and has negative consequences (Maxwell & Watson, 2006; Hope Hailey et al., 2005). Many other researchers support this argument, such as (Abbas et al., 2022), also addressed risk in HR delegation who have no enough ability and are unfamiliar with relevant legislation to manage problems in effective ways. Due to the needed importance of line manager's skills and their competencies related to human resources management practices linked managers may have lack of training related to implementation of HR practices in affective way (Cunningham & Hyman, 1999). Thus, some other researcher recommends related and consistent training program to the line managers for increasing their understanding and abilities toward affective HR practices implementation (Harris et al., 2002; Muisyo et al., 2022). While, some other managers are eager to take human resource management related responsibilities, and many others believes that these responsibilities are thrust upon individuals how they hesitant to participate (Harris et al., 2002). Thus, researcher's addresses factors influencing individual's motivation level for instance (Harris et al., 2002). While some for instance (Whittaker & Marchington, 2003), elaborates the institutionalization of incentives in an

organization that may stimulate individual's motivation (Larson, 2000). Similarly, discussing about many companies, particularly industries where individuals are viewed as the most valuable and fundamental asset, have elaborated incentive schemes for linked managers, aligned with human resource task and responsibilities (Despres & Hiltrop, 1995; Swart & Kinnie, 2003). Consistently with motivational theory, which really holds that both ability and motivation attracts to influence individual's performance (Heavey et al., 2011). According to Osolase (2022), looking from employee's efficacy standpoint, individuals who unable to perform may also unmotivated because they believe that individual's performance is too difficult and the likelihood of success seems rarely when there is no motivation.

### **Green Recruitment & Selection and Employees Pro-Environmental Behavior**

Unanimous agreement has been reached out on the crucial and most fundamental role of green human resource management practices carrying out through organizations for environmental programs (Teixeira et al., 2012). Still many organizations fail to response environmental resolutions as they don't have enough initiatives related to enhancing environmental behaviors (Parmadi, Sutarna & Ernawati, 2023). There are different green human resource management practices for instance, training and development, green performance management, green selection, green learning which influences employee's motivation and ease the generation of pro-environmental behavior within organizational context (Aragon-Correa et al., 2015). It is now more common to implement green human resource management practices as soon firms began to grow and execute their environmental related programs (Jabboure & Santos, 2008). Numerous studies established that human resource management practices are playing critical and successful role in

accomplishing the environmental performance and encourage individual in all level to behave in affirmative way toward environmental protection and sustainability of organization (Jabboure & Santos, 2008). Thus, Jabbour (2011), asserts that green recruitment and selection one of the essential practices of GHRM that have their effect on employee's environmental performance. In other hand, Jabbour (2011, p. 99), defines green recruitment and selection as an organizational activity targeted to recognize, discover and inspire potential individuals for an expected job opening. Furthermore, organizations seeking all candidates with having environmental attitudes, pro-environmental behavior and they pose environmentally related interview questions to recognize perfect applicants (Mandip, 2012). Organizations will have job offer to those having significant environmental values as a part of their daily routines and practices (Jamal et al., 2021). Organizations will be in benefits, who offers and selects candidates, having environmental friendly behavior, and know how much environmental values are important to be considered (Renwick et al., 2013). Furthermore, both individuals and companies are better understanding their required responsibilities toward environmental values, to demonstrate their commitment on having eco-friendly behaviors, acting as the most responsible employees and businesses caring corporate environmental performance, values, practices and environmental innovativeness (Phame et al., 2019; Malik et al., 2020). Therefore, this study suggest the first research hypothesis as follows;

**H1:** GR&S positively influence EPEB.

### **Green Training & Development and Employees Pro-Environmental Behavior**

Training and development is one of the essential activity of HRM practices, training and development mainly encompasses the employees behavioral and attitudinal

development, knowledge and skills enhancement that could help to prevent the them from environmental related issues (Veerasingam, Joseph & Parayitam, 2023). A researcher considered training as the most important tools as it prepares multi-talented employees to the organization (Liebowitz, 2010). Moreover, organizational performance, sustainability, goals achievements are linked with employees required and adequate training and development since training and development instills needed knowledge and abilities in employees that required for fulfillment of organizational objectives (Zakaria et al., 2012). In other hand, according to some researchers, human resource management is a set of distinct practices having interrelated functions and processes aimed to attract, develop and retain the best one (Yafi, Tehseen & Haider, 2021). HR practices are mainly executed via strategic system which align with the business culture and goals (Paauwe and Boselie, 2003). In order to develop an efficient corporate green management system, it is essential to enhance, and foster a high level of management having technical, managerial, informational and personal skills among all individuals (Daily et al., 2012; Cherian & Jacob, 2012). Therefore, green training and development are the most important practice of green human resource management that should include seminars and workshops having capacity to enable individuals to understand, equip, and effectively management environmental related issues, and allowing individuals to exhibit pro-environmental behavior (Sibt-e-Ali et al., 2018). Organizations need to develop a proper framework for effective human resource management practices which includes environmental related practices such as environmental awareness, environmental training, recruitment strategies align with environmental protection (Grolleau et al., 2012). Green training and development considered as the most essential practices of green human

resource management enabling individuals to get more insight regarding the importance of environmental issues (Jabbar et al., 2012). Also, issues linked with the environment for instance energy, recycling, management of wastes should be in the top of the list to educate individuals during training and development programs (Genty, 2021). Thus, this study suggest H2 as follows;

**H2:** GT&D positively influence EPEB.

### **Green Performance Management and Employees Pro-Environmental Behavior**

Green behavior is pro-social in nature, and it has social and environmental necessity for individuals. According to Ramus & Killmer (2007), green behavior of individuals in working environment is consisting of both mandatory and voluntary actions such as (in-role, & extra-role) actions that helps to contribute to value creation. Employees of an organization in every level (top level & bottom line) which influence their jobs in terms of when and how individuals' discretionary action can influence the organizational environmental management system (Hoffman & Dilchert, 2012). According to human resource behavioral research studies, it influences organizational performance through effective employees work attitudes and behavior (Becker & Huselid, 2006; Wright et al., 2001). Moreover, behavioral literature related to human resources management, does not directly influence employee's behavior but through numerous underlying activities (Jiang et al., 2012). One of the researchers, known as (Saeed et al., 2019), suggested that employees of an organization are less likely to be involved in the environmental behavior in the workplace. Therefore, studies suggest that more intention should be given to the internal resources of an organization, and in particular to human resource and employees related issues (Saeed et al., 2019). In other hand, green performance evaluation is the process of evaluation, and

analysis of issues based on organizational environmental aims, policies and obligations (Nisar et al., 2021). Today, green environmental practices are globally implementing through establishing performance standards and systems that could contribute organizations to ensure environmental performance (Anwar et al., 2020). Green performance evaluation is much critical aspect for providing feedback and promoting firm's environmental objectives (Jackson et al., 2011; Anwar et al., 2020). In addition, environmental targets have to be set by firms or businesses to ensure measuring employees' performance and fulfilled successfully (Jabbour et al., 2010; O'Donohue & Torugsa, 2016; Hameed et al., 2020). Performance management is non-stop ongoing process communicated between supervisor and an employee that happens throughout the year that further support organizations strategic objectives (Jackson et al., 2012; Ansari, Farrukh & Raza, 2021). Green performance management comprises concerns of organizational policies and environmental responsibilities, integrating management into performance system and raises the quality and value of environmental performance (Jackson et al., 2012; Renwick et al., 2013; Gilal et al., 2019; Chaudhary, 2020). Therefore, this study suggest H3 as follows;

H3: GPM positively influence EPEB.

### **Moderating Effects of Environmental Knowledge between Green HRM-Practices and Employees Pro-Environmental Behavior**

Knowledge is seen as necessary for effective actions (Fawehinmi et al., 2020). Knowledge is consistently having long been a popular strategy of individuals to promote in specific areas in the general public (Rubel et al., 2021). Till date, many researchers focused on environmental knowledge for instance (Darvishmotevali & Altinay, 2022; Fawehinmi et al., 2020; Saeed et

al., 2022), these studies not directly studied the influence of knowledge and knowledge forms on individual's behaviors. Some researchers believe that because of no enough understanding related to knowledge forms results are not enough explored (Saeed et al., 2022). Some environmental related studies, investigated on system knowledge, which is usually correlated with how ecosystem operate (Ahmad et al., 2021). The problem and consequences of environmental knowledge is studied by (Munawar et al., 2022), clearly stated the relationship of knowledge with environmental problems such as carbon dioxide, and climate change. Environmental knowledge measured by many scale (Munawar et al., 2022). Because that environmental sustainability, environmental behavior, and going green is increasingly got research attention in the business world, the focuses on environmental knowledge also got its own attention (Asadi et al., 2020). In other hand, employee's pro-environmental behavior is also a considerable emphasis from different researchers that build a solid relation with organizational sustainability and green initiatives (Dumont, Shen & Deng, 2017). Therefore, a growing number of research studies have been investigated the relationship between green human resource management practices and employee's pro-environmental behavior in many industries (Hameed et al., 2020), some of these studies conducted on service industries (Giudice et al., 2020), some of them are targeted health industries (Jia et al., 2018). Informational technology industries (Ojo & Raman, 2019).

Green training has explained to have much contributive impact on individual's behavior and work engagement in pro-green behaviors (Bissing-Olson et al., 2013). In other hand, green training and development is known as the practice that focuses on the development of individual's skills, employee's knowledge, and employee's behaviors with a main goal to prevent deterioration of environmental

management and environmental related behavior, skills and attitude (Zoogah, 2011; Pinzone et al., 2019). A study by Leeming and Porter (1997), reveals that uncertain and rapidly changing business world faced sustainability-oriented issues, therefore higher education needs to play their increasingly significant role to help individuals to become active, and responsible social element. While in other hand, some researchers such as (Fien, 2002; Mousa & Othman, 2020), argues that the role of higher education is critical to produce environmentally friendly and knowledgeable students to the market and therefore the considers universities as the most responsible source of sustainability and radical innovation. Moreover, performance appraisal enables to cover issues related to environmental incidents, utilization of environmental responsibilities, communication of environmental concerns and policy (Charkraborty and Biswas, 2020). We found insignificant study on moderating role of environmental knowledge in the current literature. Therefore, we proposed the following moderating H4, H5 and H6 of the current research study;

**H4:** EK moderates the relationship between GR&S and EPEB.

**H5:** EK moderates between GT&D and EPEB.

**H6:** EK moderates between GPM and EPEB.

### Research Method

The current research, which intended to evaluate the moderating role of environmental knowledge in the influence of green HRM-practices on employee's pro-environmental behavior. To reach the research purpose, we considered quantitative method, because this approach contributes in increasing the comprehension and gaining of adequate understanding of the phenomenon (Johnson et al., 2007; Creswell, 2012). The population of this study consists of banking industry. Survey questionnaire was entertained for the data collection from a total of 500 respondents were distributed, where only 351 survey were found acceptable for the statistical analysis. Furthermore, to collect the data, we entertained 9-items of GR&S with Cronbach alpha value of 0.82, a total of 12-items of GT&D with Cronbach alpha value of 0.91, a total of 8-items of GPM with Cronbach alpha value of 0.82. a total of 9-items of EK with Cronbach alpha value of 0.83. and a total of 16-items of EPEB with Cronbach alpha value of 0.89. These results shows that the items were statistically valid and have no problem for data collection purpose.

### Results

**Table 1: Demographic profile**

Demographic Characteristics	Frequency	Valid Percent
Male	214	61
Females	137	39
25-30 years old	146	41.6
31-35 years old	185	52.7
36-40 years old	20	5.7
High School	128	36.5
Bachelor Level	164	46.7

Master Level	59	16.8
0-5 years experience	105	29.9
6-10 years experience	108	30.8
11-15 years experience	138	39.3
Finance Department	49	14
HR Department	137	39
IT Department	138	39.3
Operation Department	27	7.7
<b>Total</b>	<b>351</b>	<b>100%</b>

Table 1 of demographic profile revealed the respondents characteristics, from the total sample size 351 214 (61%) are males and 137 (39%) are female respondents. Most of the respondents fall withing age range of 31-35 years (52.7%), followed by 25-30 years old (41.6%), and the smaller (5.7%) fall within the range age 36-40 years old. Which suggests a predominant mid-career age group. Respondents were also asked to put their educational level, bachelor's degree was the largest group (46.7%), high school education (36.5%), while Master degree holder (16.8%), which highlited diverse educational

background of the respondents. We also asked the respondents to put their comments in regarding their tenure or professional experiences from the total 351 a substantial number of the respondents recorded (30.8%) between 6-10 years of expericne. Respondents 11-15 years (39.3%) while (29.9%) marked themselves having experience between 0-5 years. Moreover, the reespondents was asked to mention in which department they worked, among them 39% from HR department, 39.3% Finance, 14% IT and 7.7% was respondents from operation department.

**Table 2: Correlation Analysis**

GR & S	Pearson Correlation	1					
GT & D	Pearson Correlation	.415**	1				
GPM	Pearson Correlation	.394**	.424**	1			
EK	Pearson Correlation	.085	.170**	.170**	1		
EPEB	Pearson Correlation	.392**	.552**	.469**	.107*	.641**	1

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

Table 2 presents the pearson correlation coefficients between the study variables: green recruitment and selection, green training and development, green performance management, envirnmental knowledge, and employees' pro-envirnmental behavior. Pearson correlation measures the degree of linear association between two continuous variables, where values range from -1 (perfect negative correlation) to +1 (perfect positive correlation), with 0 indicating no correlation. The table shows that

green recruitment and selection has a significant positive correlation with employee's pro-envirnmental behavior ( $r=.392$ ) at the 0.01 level. It also has a significant positive correlation with green training and development ( $r=.415$ ) and green performance management ( $r=.394$ ) at the 0.01 level, green performance management ( $r=.424$ ), and employee pro-envirnmental behavior ( $r=.552$ ) at the 0.01 level.

**Table 3: One Factor Analysis**

Model Test	X <sup>2</sup> /DF	CFI	TLI	GFI	AGFI	RMR	RMSEA
GR&S	1.982	0.941	0.901	0.921	0.921	0.045	0.065
GT&D	1.564	.931	.931	.906	.900	.044	.057
GPM	1.390	.964	.964	.937	.933	.03	.06
EK	1.690	.910	.931	.903	.911	.049	.066
EPEB	1.32	.948	.941	.932	.921	.034	.057

Table 3 shows the statistical results of the one factor analysis, the over all statistical results shows that the model of fit, the **GR&S** X<sup>2</sup>/DF = 1.982, CFI = 0.941, TLI = 0.901, GFI = 0.921, AGFI = 0.921, AMR = 0.045 and RMSEA = 0.065, all these statistical results show perfect model fit. For **GT&D** X<sup>2</sup>/DF = 1.564, CFI = .931, TLI = .931, GFI = .906, AGFI = .900, AMR = .044 and RMSEA = .057. Furthermore, statistical values for **GPM** were X<sup>2</sup>/DF = 1.390,

CFI = .964, TLI = .964, GFI = .937, AGFI = .933, AMR = .03 and RMSEA = 0.06. Statistical values for **EK** were X<sup>2</sup>/DF = 1.690, CFI = .910, TLI = .931, GFI = .903, AGFI = .911, AMR = .049 and RMSEA = .066. The statistical values for **EPEB** were X<sup>2</sup>/DF = 1.32, CFI = .948, TLI = .941, GFI = .932, AGFI = .921, AMR = .034 and RMSEA = 0.57. As the above statistical revealed and shows that there was positive model fit.

**Table 4: Coefficients of GR&S and EPEB**

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
(Constant)	2.794	.172		16.248	.000
GR&S	.323	.041	.392	7.953	.000

a. Dependent Variable: Employee pro-environmental behavior: F= 63.249, R<sup>2</sup>= .153 Adjusted R<sup>2</sup> = .151

The table 4 shows the results of a regression analysis with Employee pro -environmental behavior as the dependent variable and Green Recruitment and Selection as the independent variable. The model summary indicates significant result, as the p-value is less than 0.05. The coefficient for GR&S is 0.323, which means that a one-unit increase in GR&S is associated with a 0.323-unit increase in Employee pro-

environmental behavior. The standardized coefficient (beta) is 0.392, which indicates that GR&S has a moderate positive effect on Employee pro-environmental behavior. The t-value is 7.953, which is statistically significant (p < 0.05), indicating that the coefficient is not due to chance. f = 63.249, R<sup>2</sup> = 153 and adjusted R<sup>2</sup> = 151. Thus, overall, the results suggest that GR&S is a significant predictor of EPEB.

**Table 5: Coefficients between GT &D and EPEB**

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
(Constant)	2.624	.125		21.023	.000
GT&D	.382	.031	.552	12.369	.000

a. Dependent Variable: Employee pro -envirnontal behavior: F= 152.980, R<sup>2</sup>= .305, adjusted R<sup>2</sup> = 303

Above tables 5, presents the results of a regression analysis examining the relationship between green training and development and employee pro-envirnontal behavior. The first row of the table shows the intercept, or constant term, which has a value of 2.624. This means that when the value of GT&D is zero, the

expected value of EPEB is 2.624. The second row of the table shows the unstandardized coefficient for GT&D, which is 0.382. This means that for every one-unit increase in GT&D, there is a 0.382-unit increase in EPEB, holding all other variables constant.

**Table 6: Coefficients between GPM and EPEB**

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	T	
(Constant)	2.612	.165		15.856	.000
GPM	.357	.041	.424	8.757	.000

a. Dependent Variable: Employee pro- envirnontal Behavior: F= 76.691, R<sup>2</sup>= .180, Adjusted R<sup>2</sup> = .178

Above tables 6, shows the results of a regression analysis with the dependent variable "Employee pro-envirnontal behavior" and one independent variable "Green performance management". The "Unstandardized Coefficients" column shows the estimated regression coefficients, where the intercept (constant) is 2.612 and the coefficient for "GPM" is 0.357. The "Std. Error" column represents the standard error of the estimated coefficients, while the "t" column represents the t-statistic for testing the null hypothesis that the

corresponding coefficient is zero. In this case, the beta weight for "GPM" is 0.424, indicating that a one-unit increase in this variable is associated with a 0.424 standard deviation increase in the dependent variable. The significant p-value (0.000) for the "GPM" coefficient suggests that it is a significant predictor of "EPEB". Furthermore, F value = 79.691, R<sup>2</sup> value = .180 and Adjusted R<sup>2</sup> value = .178. Therefore, it can be concluded that there is a positive relationship between "GPM" and "EPEB".

**Table 7: Moderating Role of EK between GR&S and EPEB**

Model	B	SE	T	P	LLCI	ULCI
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Constant	.842	.088	9.568	.000	.7353	.9638
GR&S	.382	.088	4.300	.005	.7743	.8946
EK	.482	.065	7.415	.004	.2452	.3121
Interaction	.537	.099	3.4140	.003	.3142	.3967

**DV:** EPEB

Table 7 presents the role of environmental knowledge as moderator between green recruitment and selection and employees pro-environmental behavior, based on the coefficients provided. The coefficient for the constant term is .842, which represents the expected value of EPEB when all other variables in the model are zero. The t-value of 9.568 indicates that this coefficient is statistically significant at the .001 level. The coefficient for GR&S is .382, which means that a one-unit increase in GR&S is associated with an expected increase of .382 units in EPEB, holding all other variables constant. The t-value of 4.300 indicates that this coefficient is statistically significant at the .005

level. Furthermore, the coefficient for Environmental Knowledge is .482, which means that a one-unit increase in Environmental Knowledge is associated with an expected increase of .482 units in EPEB, holding all other variables constant. The t-value of 7.415 indicates that this coefficient is statistically significant at the .004 level. Moreover, the coefficient for Interaction is .437, which means that a one-unit increase in the product of GR&S and Environmental Knowledge is associated with an expected increase of .437 units in EPEB, holding all other variables constant. The t-value of 3.414 indicates that this coefficient is statistically significant at the .003 level.

**Table 8: Moderating Role of EK between GT&D and EPEB**

Model	B	SE	T	P	LLCI	ULCI
Constant	.787	.099	9.949	.001	.6573	.7375
GT&D	.431	.079	5.455	.004	.4482	.4931
EK	.579	.091	6.362	.002	.3721	.4011
Interaction	.599	.079	6.316	.003	.4311	.4798

**DV:** EPEB

Above table 8 presents the results of a regression analysis with one dependent variable (DV) named "EPEB" and three independent variables (IVs) named "GT&D", "Environmental Knowledge," and "Interaction". The first column presents the names of the independent variables or the constant. The second column shows the coefficients or estimates for each of these variables. The third column shows the standard error (SE) of the coefficients, which is a measure of the precision of the estimates. The fourth column presents the t-value, which indicates the size of the coefficients relative to the standard error. The fifth column shows the p-value, which

indicates the probability of obtaining the observed t-value if the null hypothesis were true (i.e., the coefficient is zero). Finally, the last two columns present the lower and upper confidence intervals (LLCI and ULCI) for each coefficient, which indicate the range of values within which the true population parameter is likely to fall with a certain degree of confidence. Thus, overall, the results suggest that all three independent variables significantly predict the dependent variable. Specifically, "Green T&D," "Environmental Knowledge," and the interaction between the two have positive coefficients, indicating that they are positively related to

“EPEB” The constant also has a positive coefficient, indicating that "EPEB" would have a

positive value even if all IVs were zero.

**Table 9: Moderating Role of EK between GPM and EPEB**

Model	B	SE	T	P	LLCI	ULCI
Constant	.992	.079	12.55	.001	.8857	.9031
GPM	.501	.084	5.964	.002	.5031	.5281
EK	.579	.091	6.362	.002	.3721	.4011
Interaction	.589	.089	6.617	.001	.5931	.6049

DV: EPEB

Above table 9 show the results of a regression analysis with three predictor variables (Green PM, Environmental Knowledge, and their Interaction) and a dependent variable (DV) called pro-environmental behavior. The first row of the table shows the intercept or constant term, which represents the expected value of Pro-environmental behavior when all predictor variables are equal to zero. In this case, the intercept is .992, with a standard error (SE) of .079. The t-value of 12.55 indicates that the intercept is significantly different from zero ( $p < .001$ ), meaning that even when the predictor variables are zero, there is still a significant level of EPEB. The second row shows the coefficient, standard error, t-value, and p-value for the predictor variable Green PM. The coefficient of .501 indicates that, when holding all other predictor variables constant, a one-unit increase in Green-PM is associated with a .501-unit increase in EPEB. The standard error of .084 indicates the precision of this estimate, while the t-value of 5.964 and the p-value of .002 suggest that this relationship is statistically significant. Furthermore, the third row shows the coefficient, standard error, t-value, and p-value for the predictor variable Environmental Knowledge. The coefficient of .579 indicates that, when holding all other predictor variables constant, a one-unit increase in Environmental Knowledge is associated with a .579-unit increase in EPEB. The standard error of .091 indicates the precision of this estimate, while the

t-value of 6.362 and the p-value of .002 suggest that this relationship is also statistically significant. The fourth row shows the coefficient, standard error, t-value, and p-value for the interaction term between Green PM and Environmental Knowledge. The coefficient of .589 indicates that the effect of Green PM on EPEB is modified by Environmental Knowledge. The standard error of .089 indicates the precision of this estimate, while the t-value of 6.617 and the p-value of .001 suggest that this interaction effect is statistically significant. The lower and upper limits of the confidence interval of the interaction term (LLCI = .5931, ULCI = .6049) indicate the range within which the true value of the interaction coefficient is likely to fall with a certain level of confidence. Thus, overall, the regression model suggests that both Green-PM and Environmental Knowledge are positively associated with EPEB, and that their interaction effect is also significant. However, it is important to note that the interpretation of these findings depends on the context and assumptions underlying the regression analysis.

## Discussion

The literature review mentioned above provides substantial evidence of the innate ability of HRM activities that contributes to the greening of organizational operation. In this study, we aimed to explore the influences of green HRM practices toward employees pro-environmental behavior in the bank sector, in consideration of

environmental knowledge as the moderating variable. In this study, we found that there is positive significant relationship between the study variables and environmental knowledge also moderates the relationship between GHRM-practices and EPEB. To reach the findings of the research study, we considered a total of 29-items about green HRM practices which was included (9-items for GRS, 12-items for GTD, 8-items for GPM) was adapted in this study, where these items was developed by Tang, Chen, Jiang, Paille, and Jia, (2018). A total of 9-items on environmental knowledge, and 16-items for pro-environmental behaviors, which makes a total of 60-items for the study variables. Furthermore, SPSS and AMOS were used for the statistical analysis to perform descriptive analysis, frequencies, correlation analysis, regression analysis, mediation and moderation analysis. From total 351 respondents 214 = 61% male and 137 = 39% was female respondents to the study questionnaires, 146 = 41.6% respondents were between age of 25 – 30 years, 185 = 52.7% between 31 – 35 years of age, 20 = 5.7% between 36 – 40 years of age. As far related to the education level from total 351 respondents 128 = 36.5% was bachelor level, 164 = 46.7% MBA and 59 = 16.8% MS level. 105 = 29.9% had 0 – 5 years of experience, 108 = 30.8% 6 – 10 years' experience, 138 = 39.3% had 11 – 15 years of experience. Final demographic characteristic related question was about the employee's department they work, 49 = 14% finance department, 137 = 39% HR department, 138 = 39.3% IT department, 27 = 7.7% operation department. Furthermore, the statistical results of correlation analysis which shows that there was positive and significant relationship between the study variables.

In addition, one factor analysis of the current study reveals that overall model was acceptable and good fit based on TLI, GFI, AGFI, CFI, RMR and RMSEA values. The regression analysis between green recruitment and selection

and employee's pro-environmental behavior reveals that GRS is positive significant predictor of EPEB. The regression analysis results of green training and development and employee's pro-environmental behavior reveals that GTD and a positive significant predictor of the EPEB. Regression analysis of GRS and GE also examined and positive significant relationship. Regression analysis results of the green TD and GE also shows positive significant relationship. The regression analysis between GPM and GE also examined and the results reveals positive significant relationship. The moderation analysis of the study variables also examined, the statistical results show that there is moderated role of environmental knowledge between the study variables. The standardized coefficient (beta) is 0.392, which indicates that GR&S has a positive effect on Employee pro-environmental behavior. The t-value is 7.953, which is statistically significant ( $p < 0.05$ ), indicating that the coefficient is not due to chance.  $f = 63.249$ ,  $R^2 = 153$  and adjusted  $R^2 = 151$ . Thus, overall, the results for H1 suggest that GR&S is a significant predictor of EPEB. also, the statistical results of the current study found significant, correlation of GTD ( $r=.424$ ) toward employee's pro-environmental behavior. In addition to this, the regression coefficient for GTD also found positive and every one-unit increase in GTD 38.2% increase in employee's pro-environmental behavior. Looking to the regression results, the beta weight for GPM is .424 which indicates if one-unit increased in GPM will leads 42.4% change in EPEB. Hence, the overall results can be concluded as positive relationship between GPM and EPEB, and the study accepts H3 of the current study.

Furthermore, this study accepts H4 because the coefficient for Environmental Knowledge is .482, which means that a one-unit increase in Environmental Knowledge is associated with an expected increase of .482 units in EPEB, holding all other variables constant. The t-value of 7.415

indicates that this coefficient is statistically significant at the .004 level. Moreover, the coefficient for Interaction is .437, which means that a one-unit increase in the product of GR&S and Environmental Knowledge is associated with an expected increase of .437 units in EPEB, holding all other variables constant. The t-value of 3.414 indicates that this coefficient is statistically significant at the .003 level. Moreover, the statistical results of table 8 suggest that all three independent variables significantly predict the dependent variable. Specifically, "Green T&D," "Environmental Knowledge," and the interaction between the two have positive coefficients, indicating that they are positively related to "EPEB" The constant also has a positive coefficient, indicating that "EPEB" would have a positive value even if all IVs were zero. Therefore, this study accepted H5. Furthermore, this study accepts H6 based of the statistical results of table 9 of the current study, the statistical results shows that, the overall, regression model suggests that both Green-PM and Environmental Knowledge are positively associated with EPEB, and that their interaction effect is also significant. However, it is important to note that the interpretation of these findings depends on the context and assumptions underlying the regression analysis.

## Conclusion

The study in hand mainly aimed to investigate the impact of green human resource management practices toward employees pro-environmental behavior, in the presence of environmental knowledge as the moderator between GR&S and EPEB, GT&D and EPEB, GPM and EPEB. Environmental knowledge was entertained as a moderator variable in this study. Based on the statistical results of the current study, we found that there was positive influence of independent variables on the dependent variable and there was positive moderating role

of environmental knowledge between the study variables. Furthermore, a number of research studies for instance (Dumont et al., 2017; Guerci, Longoni, & Luzzini, 2016; Khan, Rasli, & Qureshi, 2017; Nejati, Rabiei, & Jabbour, 2017), recommended if organizations desire to implement their green policies should need to adopt green practices and these can be green recruitment and selection, green training and development, green performance management, green empowerment, green reward and compensation and environmental knowledge. Manufacturing industries need to incorporate environmental friendly behavior and ensure employees commitment in their GHRM-practices. Employees need to know specific green goals, targets and responsibilities referred to them. In other hand, organizations need to provide feedback on incorporating environmental management objectives and target employee's green performance management to achieve environmental goals.

## Implications of the Study

The findings of this study on the perceived Green Human Resource Management (GHRM) practices and employees' pro-environmental behavior, with a focus on the moderating role of environmental knowledge and the mediating role of green empowerment, have several theoretical implications. These implications shed light on the understanding of the relationship between GHRM practices and pro-environmental behavior and contribute to the existing literature on green management and sustainability. Firstly, this study contributes to the literature on GHRM practices by highlighting the importance of employees' perception of these practices in influencing their pro-environmental behavior. The findings support the notion that employees' perception of GHRM practices, such as green recruitment and selection, green training and development, and green performance management, is crucial in shaping their attitudes

and behaviors towards the environment (Hosain & Rahman, 2016; Sibte-Ali et al., 2018). These findings extend our understanding of the role of GHRM practices in promoting sustainable behavior among employees. Secondly, the study adds to the theoretical understanding of the role of environmental knowledge as a moderator in the relationship between GHRM practices and employees' pro-environmental behavior. The findings indicate that employees with higher levels of environmental knowledge are more likely to exhibit pro-environmental behavior when they perceive supportive GHRM practices. This finding aligns with the notion that knowledge about environmental issues enhances individuals' awareness and ability to engage in environmentally friendly actions (Chan et al., 2014).

Furthermore, the study underscores the importance of incorporating environmental education and training programs within organizations to empower employees and enhance their understanding of environmental issues. Thirdly, the study contributes to the literature by examining the mediating role of green empowerment in the relationship between perceived GHRM practices and employees' pro-environmental behavior. The findings indicate that when employees perceive supportive GHRM practices, they feel empowered to engage in pro-environmental behaviors. This finding aligns with the theoretical perspective that emphasizes the role of empowerment in driving positive behaviors (Frick, Kaiser, & Wilson, 2004). It underscores the significance of creating a work environment that encourages employees to take ownership of sustainability initiatives and actively contribute to environmental goals. Lastly, the study provides theoretical support for the integration of GHRM practices, environmental knowledge, and green empowerment in developing a comprehensive framework for promoting pro-environmental behavior within organizations. It emphasizes the

need for organizations to adopt a holistic approach that includes GHRM practices to enhance employees' perception of their environmental role, environmental knowledge to empower employees with the necessary information, and green empowerment to foster a sense of responsibility and agency in promoting sustainability.

Moreover, the findings of this study on the perceived Green Human Resource Management (GHRM) practices and employees' pro-environmental behavior, with a focus on the moderating role of environmental knowledge and the mediating role of green empowerment, have important practical implications for organizations aiming to promote sustainability and environmental responsibility. The following practical implications highlight how organizations can leverage these findings to enhance their green initiatives. Firstly, organizations should prioritize the implementation of GHRM practices that promote environmental awareness, green training and development, and green performance management. These practices should be designed to enhance employees' perception of the organization's commitment to environmental sustainability (Hosain & Rahman, 2016; Sibte-Ali et al., 2018). By fostering a supportive and eco-friendly work environment, organizations can influence employees' attitudes and behaviors towards the environment. Secondly, organizations should invest in environmental education and training programs to enhance employees' environmental knowledge. This can be achieved through workshops, seminars, and other learning opportunities that provide employees with information on environmental issues, sustainability practices, and the importance of their individual contributions (Chan et al., 2014; Frick, Kaiser, & Wilson, 2004). By equipping employees with the necessary knowledge, organizations empower them to make informed

decisions and engage in environmentally friendly actions. Thirdly, organizations should promote green empowerment by involving employees in decision-making processes related to environmental initiatives. This can be done through employee participation in sustainability committees, task forces, or green teams (Appelbaum et al., 2000). By empowering employees to take ownership of sustainability efforts, organizations foster a sense of responsibility and encourage active engagement in pro-environmental behaviors. Moreover, organizations can enhance their sustainability efforts by creating a culture that values and recognizes employees' pro-environmental behavior. This can be achieved through incentives, rewards, and recognition programs that acknowledge and celebrate employees' contributions to environmental sustainability. By creating a supportive and rewarding environment, organizations can motivate employees to continue their environmentally friendly actions (Hameed et al., 2020).

### Limitations and Future Directions

Like most of the studies, our research has some limitations that need to be addressed in future research studies. In this study, we considered single-source data collection targeting banking industry. Future studies, may consider other source of data or other than banking industry. For instance, manufacturing, pharmaceutical, and telecommunication industry. Secondly, in this study we considered, selected green HRM practices. Future researcher, may consider other than selected or add some more variables in the same research framework. For instance, future research may consider mediation role of variables such as (green transformational leadership, green work climate, green psychological behavior etc), to examine the relationship between the variables entertained in the current research model. Furthermore, in this study, we considered pro-environmental

behavior as the outcome variable. Future researchers, may include other variables such as employee's environmental behavior, employee's green creativity, employee's green extra role behavior.

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