



## **GREEN HRM AS PREDICTOR OF FIRMS' ENVIRONMENTAL PERFORMANCE AND ROLE OF EMPLOYEES' ENVIRONMENTAL ORGANIZATIONAL CITIZENSHIP BEHAVIOR AS A MEDIATOR**

Dr. Muhammad Tahir<sup>1\*</sup>, Dr. Nadeem Safwan<sup>2</sup>, Dr. Abid Usman<sup>3</sup>, Dr. Adil Adnan<sup>4</sup>

<sup>1</sup>Lecturer, Niizwa College of Technology, Nizwa, Sultanate of Oman

<sup>2</sup>Professor, Business Administration Department, Iqra National University, Peshawar, Pakistan

<sup>3</sup>Dean, Faculty of Management & Social Sciences, Iqra National University, Peshawar, Pakistan,

<sup>4</sup>Chairman, Business Administration Department, Iqra National University, Peshawar, Pakistan

### **Article Info**

\*Corresponding Author

Email Id: [tahirkhanzaee@gmail.com](mailto:tahirkhanzaee@gmail.com)

### **Abstract**

Green HRM consists of HRM policies and practices which promote environmental friendly behavior among staff. Green HRM can significantly contribute to an organization's environmental-friendly programs and workforce green behavior. The current study is an investigation of green HRM and its effects on employee's environmental-related organizational citizenship behavior (OCB-Environmental) and firms' environmental performance. The context of the study is the China Pakistan Economic Corridor (CPEC) related construction and IT firms operating in Pakistan. The methodology of the study is the cross-sectional quantitative approach and survey-based data collection. Data is collected from 223 employees working in different construction and IT-related CPEC firms. The findings of the study indicate that there is a low level of understanding and application of green HRM in sample firms. The results indicate that the dimensions of green HRM have significant positive effects on OCB-environment and firms' environmental performance. Additionally, the mediating role of employee OCB-environment is tested in the study. The results of the mediation analysis indicate that OCB-environment partially mediates between green HRM dimensions and organizational environmental performance.

### **Keywords**

Green HRM, Green Training, Green Reward, Environmental OCB, Firms Performance



## 1. Introduction

China Pakistan Economic Corridor (CPEC) is a collection of infrastructure projects being constructed in Pakistan and has combined worth of over 62 billion US dollars (Government of Pakistan, 2018). The CPEC project is mostly financed by the Chinese government and the Chinese companies and is focused on the improvement of transportation, energy, and IT infrastructure in Pakistan. The CPEC aims to enable Chinese producers to market their products to the Middle Eastern, European, and African markets using the shorter route from Pakistan to the Arabian sea through Gawadar port. Furthermore, as part of the CPEC project, specialized industrial zones will be developed along the CPEC route which is expected to boost the Pakistani economy, creating hundreds of thousands of jobs, attracting foreign direct investment, and bringing socio-economic development in the country. However, critics warn that besides positive effects, the CPEC may lead to some negative outcomes for Pakistan. One such possible negative outcome is the deterioration of the natural environment of Pakistan. This is because, as part of CPEC, the industrial activities will increase within Pakistani land. These increased industrial activities are likely to lead to higher production of carbon and other toxic waste into the air and water system thus putting further strain on the already vulnerable natural environment of Pakistan. Therefore, an urgent response from the government and its relevant bodies and concerned

organizations are required to minimize such negative impact on the natural environment. The current study is about green HRM which can be effectively applied to decrease the environmental impact of CPEC firms. However, there is little understanding and relevant studies about green HRM practices and environmental outcomes in the CPEC or Pakistani context. Therefore, the motivation for conducting this study is to investigate this issue and come up with suitable guidelines for the management of the CPEC related firms and relevant government bodies.

### *1.1 Objectives of the Study*

The objective of the study is to test the effects of green HRM dimensions on firms' environmental performance and employees' OCB-environment. Additionally, the objective is to test the mediating role of OCB-environment between the relationship of green HRM dimensions and organizations' environmental performance.

### *1.2 Significance of the Study*

The significance of the study is that it will provide useful insight into the current level of understanding and application of green HRM among CPEC firms in Pakistan. The findings will be useful for the management of CPEC related firms in reducing the negative environmental impact. The findings of the study are also expected to provide useful policy guidelines to the government and its relevant institutions regarding tackling environmental issues arising because of the CPEC project. The theoretical contribution of the study is that it investigates

green HRM and its environmental outcome relationship by taking a process approach through the introduction of employee OCB-environment as a mediator.

## **2. Literature Review**

### *2.1 Introduction to Green HRM*

Green HRM refers to the use of HRM policies, philosophies, and practices to promote the sustainable use of resources and prevent harm arising from environmental concerns within a business organization (Zoogah, 2011). Furthermore, Kramar (2014) view green HRM as those HR activities which enhance positive environmental outcomes. Green HRM is significant for organizations since it addressed the 'triple-bottom-line' including economic, social, and environment (Yusoff, Ramayah, & Othman, 2015). The green HRM is gaining popularity among academics and practitioners; and keeping in view the bigger problem of environmental pollution and associated risks, the green HRM can be considered as the next level of strategic HRM.

### *2.2 Dimensions of Green HRM*

Various dimensions of Green HRM are proposed by different experts such as Jabbour & Jabbour, (2016) proposed two main dimensions; and Gholami, Rezaei, Saman, Sharif, and Zakuan (2016) proposed seven dimensions. In this study, the five dimensions model of green HRM is adapted which is proposed by Renwick, Jabbour, Müller-Camen, Redman, & Wilkinson (2016). The five dimensions of green HRM include green recruitment and selection, green training and

development, green performance management, green reward, and employee empowerment and participation. Their details are as follows;

#### **2.2.1 Green Recruitment and Selection**

Green recruitment and selection are based on the idea of including environmental awareness as a criterion in the process of recruitment and selection (Renwick, et al., 2016; Shen, Dumont, & Deng, 2019). Arulrajah, Opatha, and Nawaratne (2015) suggest that environmental concerns should be placed in the recruitment advertisement and such employees should be preferred in selection who have a good understanding about the environmental related issues and hold relevant values. Furthermore, the job analysis and resulting job description and specification should also include the criteria related to the environment (Guerci, Longoni, & Luzzini, 2016; Renwick, 2018). The importance of green recruitment and selection is that it enables firms to induct such individuals who possess environmental friendly values and understanding (Jabbour & Jabbour, 2016). The idea of green recruitment & selection may sound good but it can be difficult to follow in practice due to some factors such as time pressure for hiring, shortage of skilled staff in the labor market, and difficulty in assessing candidates' environmental friendly values and behavior.

#### **2.2.2 Green Training and Development**

Green training and development are about altering employee's knowledge, skills, and behavior related to environmental issues (Teixeira, Jabbour, & Jabbour, 2012). Training is

very important for preparing employees and enabling organizations to achieve their environmental objectives (Jabbour & Jabbour, 2016). The outcome of a well-designed training is that it enables employees to adopt such behavior which is in alignment with organizational environmental objectives (Paille, Chen, Boiral, & Jin, 2014; Renwick, et al., 2016; Jabbour, 2018). The limitation of the green training & development includes the scarcity of resources and difficulty in assessing the outcomes of green training & development.

### 2.2.3 Green Performance Management

The idea of green performance management is based on including environmental-related factor in the process of objective setting and employee's performance appraisal, disciplinary, and so on (Renwick, 2018). In other words, employee's job objectives not only include work-related aspects but also include environmental-related objectives, responsibilities, and behavior. Supervisors are also trained to give proper feedback to employees regarding their environmental-related performance (Arulrajah, et al., 2015). The limitation of green performance management includes its dependency on the presence of a well-designed performance management program in an organization.

### 2.2.4 Green Reward

The reward is a global motivating factor and environment management is no exception. The green reward is about designing reward practices in such a manner that an employee's greener behavior and performance can be encouraged and

rewarded accordingly (Jabbour & Jabbour, 2016; Renwick, 2018). In other words, employees are evaluated based on their performance for supporting the environmental-related initiatives and compensated accordingly (Merriman & Sen, 2012; Harvey, Williams, & Probert, 2013). The role of reward in promoting employee's environmental friendly behavior is acknowledged in the previous studies (e.g. Ren, Tang, & Jackson, 2017; Zoogah, 2011). The limitation of the green reward is that often organization do not have resources to introduce such incentives. Furthermore, intrinsic factors such as awareness and responsibility towards the environment seem to be more effective in shaping employee's green behavior compared to the extrinsic reward.

### 2.2.5 Employees' Empowerment and Participation in Environmental Programs

According to Jabbour and Jabbour (2016), employee participation and empowerment is required for making environmental programs successful. When employees participate in such programs or initiatives, they not only understand these programs, and their objectives but also share their opinion, creative ideas, and own the tasks (Renwick, et al., 2016). Employee's autonomy is also important for environmental programs since it enables timely action from employees and thus supports these programs (Harvey, et al., 2013). Several studies show the positive role of employee empowerment and participation in making environmental programs successful (Dailey, et al., 2009).

### *2.3 The Effects of Green HRM on Firms' Environmental Performance*

Past studies acknowledged the effects of green HRM on firms' environmental performance. For example, a study conducted by Jabbour and Jabbour (2016) showed that green HRM practices lead to better performance of firms in terms of the environment. Studies also show that without green HRM, organizations cannot implement environmental management programs successfully (e.g. Teixeira, et al., 2012). Other studies also reported similar results such as Anwar, Mahmood, Yusliza, Ramayah, Faezah, and Khalid (2020); Bangwal, Tiwari, and Chamola (2017); Rawashdeh (2018); and Gilal, Ashraf, Gilal, Gilal, and Channa (2019). Some studies used green HRM as a mediator between organizational factors and the environmental performance of a firm. For example, a study by Guerci, et al., (2016) found green HRM playing a mediating role between stakeholder pressure and firm environmental performance relationship. Similarly, a study by Obeidat, Al-Bakri, and Elbanna (2018) found that green HRM plays a mediating role between top management support, internal environmental orientation, and firm environmental performance among Qatari oil and gas industry. Overall, past studies show that green HRM plays an important role in influencing organizational environmental performance either directly or indirectly. The relationship between green HRM and firms' environmental performance is also supported by the stakeholder theory (Wehrmeyer, 1996). The theory states that

firms' HRM policies and practices are shaped in response to regulatory pressure and customer demands. This means that firms want to achieve improved environmental performance by utilizing the green HRM in response to the external pressure. Based on the previous studies and stakeholder theory, we hypothesize that green HRM leads to the firms' environmental performance. Specific hypotheses are as follows;

H1: Green recruitment & selection has significant effects on firms' environmental performance

H2: Green training & development has significant effects on firms' environmental performance

H3: Green performance management has significant effects on firms' environmental performance

H4: Green reward has significant effects on firms' environmental performance

H5: Employee empowerment & participation has significant effects on firms' environmental performance

### *2.4 The Effects of Green HRM on Employee's OCB-Environment*

Previous studies show that green HRM not only influences overall organizational environmental performance but also shapes employee's behavior and attitude. In Green HRM literature, the green behavior of employees is mostly used as an outcome variable and different authors used different labels such as green in-role behavior or eco-friendly behavior (Paille, et al., 2014; Kim, Kim, Choi, & Phetvaroon, 2019). In this study, we used the concept of employee's organizational citizenship behavior-environment. It is defined as

individual and discretionary social behaviors that are not explicitly recognized by the formal reward system and that contribute to more effective environmental management by the organization (Boiral & Paille, 2012). There can be a range of discretionary activities by employees which can fall in this category such as sharing knowledge to prevent pollution at the workplace, greater involvement in environmentally friendly practices, coming up with environmental friendly ideas, and so on. The theoretical foundation of the OCB-environment is based on the OCB literature which establishes that employee's voluntary behavior is important for the smooth functioning of an organization (Niehoff, 2005). The OCB concept is beginning to be applied in the environmental or green management domain for some time (e.g. Ramus & Killmer, 2007; Boiral & Paille, 2012). Studies related to the factors predicting OCB-environment shows that individual personality factors such as environmental concern (Temminck, Mearns, & Fruhen, 2015); and organizational factors such as HRM and organizational environmental orientation can lead employees to involve in OCB-environment (Qian, Song, Jin, Wang, & Chen, 2018).

In this study, the green HRM influencing employees' OCB-environment is investigated. The rationale for OCB in the environmental domain is that often the traditional job description cannot cover all aspects of a job especially the environmental domain. Thus, the application of the OCB concept is relevant since it is based on

the voluntary involvement of employees in such behavior. Several studies reported a positive influence of green HRM on employees' OCB-environment and related concepts. For example, a study by Harvey, et al., (2013) reported a positive relationship between green HRM practices and employee environmentally friendly behavior. Similarly, a study by Paille et al., (2014) showed that green HRM practices lead to voluntary green in-role performance and green behavior of employees. A study by Dumont, Shen, and Deng (2017) showed that green HRM influences employees' in-role and extra-role green behavior. A study by Kim, et al., (2019) showed that green HRM can lead to employee's eco-friendly behavior and hotel environmental performance. It can be noted that different studies used different terms such as intentions for green behavior by Shim (2019); employees' environmental performance by Hameed, Khan, Islam, Sheikh, & Naeem (2020); green intentions and behavior by Mukherjee & Chandra (2018); and sustainability engagement by Stanley and Chin (2019). There may be some theoretical overlap among these concepts but the overall idea is that employees are internally motivated and putting efforts for preserving the natural environment and making an organization's environmental programs successful. The relationship between green HRM and employee OCB-environment is also supported by the AMO model (Appelbaum, Bailey, Berg, & Kalleberg, 2000). Accordingly, an employee's performance is shaped by ability, motivation, and opportunity. These three

components can be improved using green HRM practices. Based on previous studies and the AMO theory, the following hypotheses are proposed.

H6: Green recruitment & selection has significant effects on employees OCBE

H7: Green training & development have significant effects on employees OCBE

H8: Green performance management has significant effects on employees OCBE

H9: Green reward has significant effects on employees OCBE

H10: Employee empowerment & participation has significant effects on employees OCBE

Finally, since green HRM influence both the firm environmental performance and employee's green behavior, so it is hypothesized that the employee OCB-environmental which is a type of employee's environmental friendly behavior plays a mediating role in this relationship. The justification of the hypothesized relationship is that employee behavior is mostly a precedent of a firm's performance. Therefore, the mediating role of OCB-environment in this relationship is justified. Our specific hypothesis is as follows;

H11: Employee OCB-environment function as a mediator between green HRM and a firm's environmental performance.

### **3. Research Methodology**

#### *3.1 Research Design*

The design of the current study is cross-sectional and non-experimental. Here data is only collected once. The design of the study is also descriptive and explanatory since it not only focuses on the

current state of green HRM but also explains the relationship between variables.

#### *3.2 Population and Sampling*

The population of the current study is all employees of the construction and IT firms in the CPEC project. The population is large and is expected to be around 20000 employees. A total of 342 questionnaires are distributed among staff belonging to different firms and in return, a total of 223 questionnaires were returned.

#### *3.3 Data Collection Tools*

Green HRM measure is adapted from Masri and Jaaron (2016). In this measure, green recruitment & selection is measured by 5 items; green training & development is measured by 5 items; green performance and appraisal are measured by 5 items; the green reward is measured by 3 items; and employee empowerment and participation are measured by 5 items. OCB-E is measured by 10 items and adapted from Boiral and Paille (2012). Organizational Environmental performance is measured by 5 items and adapted from Chow and Chen (2012).

#### *3.4 Pilot Study*

A small-scale pilot study is conducted with a sample size of 20 employees drawn from the same construction and IT firms. Participants of the pilot study were briefly interviewed for their understanding of the concepts and questionnaire items. Overall, the participants were able to understand the concepts and found survey questionnaire items easier to understand. The average time to complete the survey was about 15 minutes.

### 3.5 Reliability and Validity

The reliability is tested using the Cronbach alpha and the composite reliability; while, the validity is established by testing the convergent validity and the divergent validity through confirmatory factor analysis (CFA). Details are in the results section.

### 3.6 Ethical Issues

Ethical issues were adequately addressed including the privacy of the respondents, use of no force, no harm, no deception, and solely use of data for this study.

## 4. Results

### 4.1 Demographic Information of the Survey Participants

Demographic information of the survey participants is as follows;

Table 1

*Demographic Information*

	N	%
<b>Gender</b>		
Male	188	84.3%
Female	35	15.7%
<b>Age</b>		
18 to 30 Years	78	34.97%
30 to 45 Years	67	30.04%
45 to 60 Years	55	24.66%
Above 60 Years	23	10.31%
<b>Role</b>		
Engineer	56	25.11%
Administrative	59	26.45%
IT Related	51	22.86%
Labor	23	10.31%
Others	34	15.24%

There are 188 males and 35 females in the sample surveyed. Age-wise, 78 participants belonged to the 18 to 30 years of age category; 67 participants belonged to the 30 to 45 years of age category; 55 participants belonged to the 45 to 60 years of age category; 23 participants belonged to the age of above 60 years category. In terms of job role, 56 belonged to the engineering category; 59

belonged to the administration category; 51 belonged to the IT category; 23 belonged to the labor category; and 34 belonged to the other category.

### 4.2 Assessment of the Measurement Model

The measurement model is assessed using the Confirmatory Factor Analysis for establishing reliability and validity. The CFA is performed



using the AMOS version 18 for the following model.

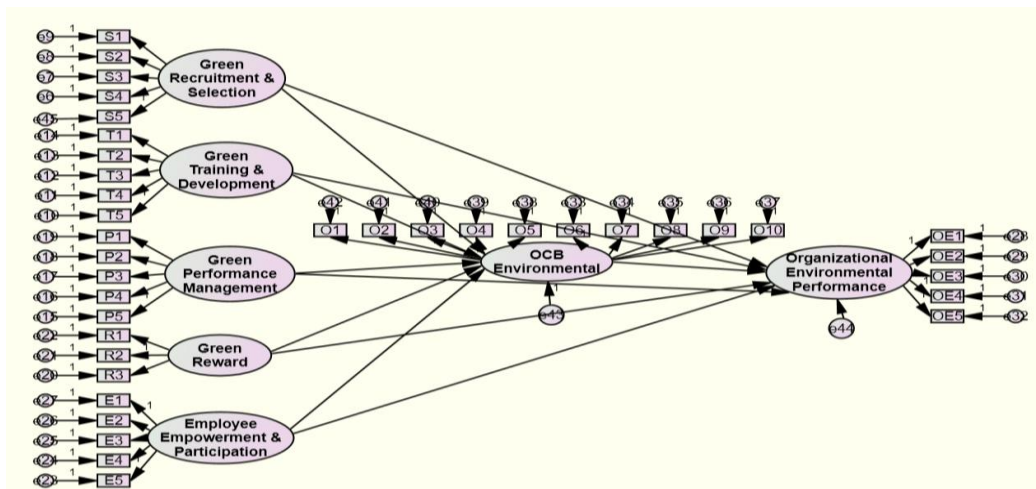


Figure 1: Theoretical Model of the Study

Table 2

Reliability, Validity, and Descriptive Statistics

	Cronbach Alpha	Composit e Reliability	Average Variance Extracted	Mean	Std. Deviation
Green Recruitment & Selection	.662	.831	.510	3.57	.738
Green Training & Development	.704	.849	.535	3.65	.656
Green Performance Management	.739	.866	.569	3.40	.775
Green Reward	.790	.805	.591	3.67	.930
Employee Participation & Empowerment	.664	.827	.555	3.29	.571
OCB-Environmental	.628	.911	.525	3.45	.442
Organizational Environmental Performance	.640	.849	.535	3.40	.627

X2= 1432, df=653, x2/df=2.19, CFI=0.93, NNFI=0.91, RMR=0.04, RMSEA=0.6

The composite reliability and Cronbach alpha for all variables are above 0.60 so it shows that our variables had good reliability. All individual factor loadings were also above 0.60 and the average variance extracted (AVE) is also above 0.50 so it is an indication of good convergent

validity. The model also indicates good fit [x2/df= 2.19, CFI=0.93, NNFI=0.91, RMR=0.04, RMSEA=0.6] assessed based on the guidelines by Hu and Bentler (1999); and Browne and Cudeck (1992).

Descriptive results indicate that all green HRM dimensions have scored just around average level including green recruitment and selection (M=3.57, SD=.73); green training and development (M=3.65, SD=.65); green performance management (M=3.40, SD=.77); green reward (M=3.67, SD=.93); and employee participation and empowerment (M=3.29, SD=.57). The mean score indicates that there is a

medium level of green HRM practices implemented based on the perception of the participants. Furthermore, in sample organizations, the employee's OCB-environment (M=3.45, SD=.44); and the firms' environmental performance is also an average level (M=3.40, SD=.62). The discriminant validity result is provided in the following table

Table 3  
Discriminant Validity

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
Green Recruitment & Selection	<b>.714</b>	.331	.330	.102	.102	.155	.236
Green Training & Development	.331	<b>.731</b>	.382	.120	-.020	-.052	-.042
Green Performance Management	.330	.382	<b>.754</b>	.159	.236	.438	.447
Green Reward	.102	.120	.159	<b>.769</b>	-.166	-.034	.097
Employee Empowerment & Participation	.102	-.020	.236	-.166	<b>.745</b>	.269	.301
OCB-Employees	.155	-.052	.438	-.034	.269	<b>.724</b>	.515
Organizational Environmental Performance	.236	-.042	.447	.097	.301	.515	<b>.730</b>

The values in the diagonal bold are the square root of AVE and the other values are variables correlation. Based on the Fornell and Larcker (1981) criteria, the square root of AVE should be greater than the correlation of the variable which is other values in the rows and column. Here, the criteria are achieved as all diagonal bold values are greater than other values in its respective rows

and column so it is an indication that discriminant validity is established for our variables.

#### 4.3 Measurement of Structural Model

The next step after the assessment of the measurement model is the structural model assessment. The structural model is assessed using the path analysis conducted through AMOS.

Table 4  
Path Analysis-Hypotheses Testing

	<b>Estimate</b>	<b>S.E.</b>	<b>C.R.</b>	<b>P</b>
H1: Green_Recruitment & Selection>EP	.138	.069	1.998	.046
H2: Green_Training & Development>EP	.262	.119	2.191	.028

	Estimate	S.E.	C.R.	P
H3: Green_Reward>EP	.027	.035	.759	.448
H4: Employee_Empowerment & _Participation>EP	.145	.087	1.669	.095
H5: Green_Performance_Management>IOEP	.323	.107	3.008	.003
H6: Green_Recruitment & _Selection>OCBE	.107	.047	2.276	.042
H7: Green_Training & _Development>OCBE	.256	.118	2.174	.030
H8: Green_Performance_Management>OCBE	.287	.102	2.816	.005
H9: Green_Reward>OCBE	.038	.035	1.086	.278
H10: Employee_Empowerment & _ParticipationOCBE	.111	.055	2.018	.045
OCB_Environmental>EP	.311	.152	2.047	.041

The results for the green HRM dimensions and the organizational environmental performance shows that three dimensions including green recruitment & selection ( $\beta=.138$ ,  $P<.05$ ); green training & development ( $\beta=.262$ ,  $P<.05$ ); and green performance management ( $\beta=.323$ ,  $P<.05$ ) has positive and significant effects. The results for the green reward ( $\beta=.027$ ,  $P>.05$ ); and employee empowerment & participation turned out to be insignificant ( $\beta=.145$ ,  $P>.05$ ). Other results show that green HRM dimensions including green recruitment & selection ( $\beta=.107$ ,  $P<.05$ ); green training & development ( $\beta=.256$ ,  $P<.05$ ); green performance management ( $\beta=.287$ ,  $P<.05$ ); and employee empowerment & participation ( $\beta=.111$ ,  $P<.05$ ) has positive and

significant effects on OCB-environmental. The results for the green reward turned out to be insignificant ( $\beta=.038$ ,  $P>.05$ ). The result also shows that employee’s OCB-environmental has positive and significant effects on organizational environmental performance ( $\beta=.311$ ,  $P<.05$ ). The next step is to test the mediation hypotheses.

The mediation analysis includes green HRM dimensions as independent variables, organizational environmental performance as a dependent variable; while, employees OCB-environmental is treated as a mediating variable. We calculated mediation by using the direct and indirect effects based on bootstrap procedure (500 samples) and bias-corrected bootstrap confidence interval (90%). The results are as follows.

Table 5  
Mediation Analysis

Path	Direct Effects	Indirect Effects	Remarks
Green R&S>OCBE>EP	.138(.046)	.033 (.322)	Full mediation
Green T&D>OCBE>EP	.262(.028)	.080 (.033)	Partial mediation
Green PM>OCBE>EP	.323(.003)	.089 (.041)	Partial mediation
Green R>OCBE>EP	.027(.448)	.012 (.343)	Partial meditation

EE&P>OCBE>EP	.145(.095)	.034(.032)	Partial mediation
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The results for the direct and indirect effects are provided above. The result shows that green recruitment & selection, the significance level changed from significant for direct effects to insignificant for indirect effects so it is an indication of full mediation. For the rest of the four dimensions, there is a moderate change in the significance level so it is an indication of partial mediation. Thus, H11 is partially accepted.

#### 4.4 Discussion

The objective of the study was to test the effects of Green HRM dimensions on employees' OCB-environmental and organizational environmental performance. Data is collected using the sampling approach from the selected firms working in CPEC projects. Results indicate that in sample firms, there is a medium level of understanding and application of green HRM dimensions including green recruitment and selection, green training and development, green performance management, green reward, and employee participation and empowerment. Furthermore, the employees in the sample also show a medium level of organizational citizenship behavior in the environmental domain and the organizational own environmental performance is also only an average level. Results based on path analysis indicate that three out of five dimensions of Green HRM have positive and significant effects on firms' environmental performance. These results are consistent with the findings of previous studies (e.g. Jabbour & Jabbour, 2016;

Teixeira, et al., 2012). Furthermore, four out of five dimensions of green HRM has positive and significant effects on employees OCB-environmental. These results are consistent with the findings of previous studies including Harvey, et al., (2013), and Paille, et al., (2014). The results are also supported by the stakeholder theory (Wehrmeyer, 1996); and the behavioral perspective of HRM which provide support for the effects of HRM on employee's behavior (Norton, Parker, Zacher, & Ashkanasy, 2015). Finally, we also tested the mediating model where we looked at the effects of green HRM on a firm's environmental performance with OCB-environmental as a mediating variable. Our results show that the employees OCB-environmental partially mediate the relationship between green HRM and firms' environmental performance. This result supports the importance of employee's behavior and attitude for the success of the environmental program.

#### 5. Conclusion

The objective of the study was to test the effects of green HRM on employee's OCB-environmental and firm environmental performance. Based on the findings of the study, it can be concluded that there is a low level of understanding and application of green HRM among CPEC construction and IT-related firms operating in Pakistan. It can also be concluded that green HRM is a useful concept which if properly applies can influence employees and the

firm's greener behavior. Furthermore, the importance of green HRM is that it can support organizations in implementing environmental programs. For Pakistan, the importance of green HRM is that it can be used to reduce the strain on the natural environment which will have a long-lasting impact on the country's natural environment.

### 5.1 Policy Implications

The moderate level of understanding about green HRM and environmental issues among CPEC firms is alarming. Therefore, our first policy implication is that there is an urgent need for creating greater awareness about environmental issues among CPEC firms operating in Pakistan. For this purpose, the government and its subsidiary organizations (e.g. relevant ministry/directorate) need to work proactively to raise awareness level among managers of CPEC firms about environmental impact. The regulatory authorities may also make it binding on CPEC firms to take action regarding environmental issues such as reducing carbon emission, carbon data reporting, and following certain environmental protection standards. The regulatory authorities may not only take environmental inspection of the CPEC firms but also assist these firms in reducing their negative impact on the natural environment. CPEC firms also need to take this issue seriously. In this regard, a separate department such as the environmental protection department may be useful in CPEC firms. The system of internal audits related to the application of green HRM

and environmental performance may also be useful and can be initiated by the management of the CPEC firms. HR function among the CPEC firms should also give greater attention to green HRM to achieve environmental program objectives.

### 5.2 Limitations and Directions for Future Researchers

The limitations of the study include cross-sectional design, small sample, and sole reliance on quantitative methods for data collection and analysis. A future researcher should focus on different dimensions of green HRM and its different predictors and outcomes. The development of a local green HRM model and a local measure can also be an avenue for future research.

### Conflict of Interest Statement

The authors declare no conflict of interest.

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