



Mansoura University  
Faculty of Tourism and Hotels

Raising Environmental and Social Sustainability  
through Green Human Resources Practices in  
Egyptian Tourism & Hospitality Organisations; the  
Mediating Role of Pro-Environmental Behaviors

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### **Abstract**

Governments, organisations and consumers are facing growing green challenges and opportunities. Particularly, tourism organisations are confronting numerous social and environmental issues; human resource management (HRM) is one of the important business functions that can address and respond to such issues by implementing sustainable strategies such as green human resource management (GHRM) practices. Thus, there is a need to examine how green HRM can raise the Social and Environmental Sustainability of tourism and hospitality organizations, especially in response to Egypt's vision 2030 of sustainability.

Accordingly, this study investigates the relation between GHRM practices and the organizations' Social and environmental responsibility through developing Pro-Environmental Behaviors among their employees. A model was proposed for the analysis of this relationship within Egyptian Tourism& Hospitality (T&H) organisations.

Seeking to the quantitative research method, a survey research tool was also employed for testing the model. Using the partial least squares structural equation modeling (PLS-SEM) results show the different consequences and effects of the study variables.

The study provides theoretical contributions to HRM literature; Specific implications for all stakeholders within the industry will arise considering the results.

*Keywords: GRHM, Environmental Sustainability, Social Sustainability, Pro-Environmental Behaviors.*

## **Introduction**

Sustainable growths in the economy and the extensive use of natural resources have become a major concern in the modern world (Tulsi&Ji, 2020).

Within Egypt Vision 2030, welfare and prosperity are considered the main economic objectives to be achieved through sustainable development, social justice and balanced geographical and sectoral growth (El-Megharbel, 2015). According to Haiying (2020), the trends of Egypt's tourism development are closely linked to Sustainable Development Goals and subsequently, the Ministry of Tourism decide to brand Egypt as a responsible destination with recognized environmental and social sensitivities to meet future demands on green tourism products and service to develop Egypt's Green Tourism.

The broader concerns of the sustainable industry may be partly responsible for the recent greening of human resource management (Jackson, 2012). Green Human Resources Management's (GHRM's) notion is related to the HRM function as the main driver of green initiatives in an organization (Jabbour & Jabbour, 2016). Sharma and Gupta (2015) defined GHRM as HRM practices to promote sustainable resource use which increases employee awareness and commitment toward environmental management concerns. It has been sustained that the HRM function "is uniquely positioned to assist in both developing and implementing corporate social responsibility (CSR) and sustainability strategy" (Cohen et al., 2012). HRM significantly influences how CSR is recognized, developed

and enacted; similarly, the way in which organizations approach social responsibility has implications for the treatment of workers (Úbeda-García et al. 2021). GHRM involves practices aligned with the three pillars of environmental, social, and economic sustainability and provides the organization with long-term benefits (Yusoff et al., 2015). Nevertheless, the literature review indicates a minor number of studies concerning the societal impact of GHRM adoption and implementation. Social sustainability is the least explored area than economic and environmental pillars of sustainability (Úbeda-García et al. 2021).

Furthermore, most of the GHRM's prior researches were carried out in developed western cultures (Jabbour & Jabbour, 2016) within the industrial organisations. There are still arguments and uncertainty about GHRM practices to improve environmental performance. Also, human contributions to the environmental performance of service organisations such as hospitality organizations are often neglected in research (Tulsi&Ji, 2020). Though, it is argued that it is important to greening the tourism and hospitality industry for green growth and sustainability (Lee & Kwang, 2013). The industry is itself a huge environment resource consumer and its responsibility towards the environment is also crucial (Tulsi&Ji, 2020). While CSR has been argued to be important within the industry, the focus always has been on environmental stakeholders. Employee and organizational behavior then again are less studied with regards to the integration of environmental responsibility. There are still significant research gaps on GHRM adoption, current GHRM practices, and the implementation of such practices to improve environmental performance,

and addressing such gaps is paramount (Siyambalapitiya et al., 2018).

Drawing on the above-mentioned, the current study aims to address these gaps by investigating the relation between GHRM practices and the organizations' social and environmental responsibility by developing employees' Pro-environmental behaviors within Egyptian Tourism & Hospitality (T&H) organisations. The study also is trying to contribute to the HRM literature by examining the true value of GHRM practices and its implications from the point of view of HR managers, within the Egyptian organisations

### **Literature Review**

For many organizations, sustainability has become a key concern due to changes in the environment, regulations, and pressure from society toward social and environmental responsibility (Amjad et al., 2021). Organizations are facing the challenge of creating a balance between resource consumption and economic development which obliges them to implement environmentally friendly business activities that improve their economic, social, and environmental performance (Chan et al., 2012).

Within the notion of sustainability, the impact of any organization is measured not just in terms of finance, such as profits and return on investments, but also in terms of social and environmental dimensions (Gardberg & Fombrun, 2006). The practices used by organizations, particularly those which are people-oriented, with an increasing focus on green management, are important for

sustainability (Amjad et al., 2021). All of this may be partly responsible for the recent greening of human resource management (GHRM) ((Jackson, 2012; Al Kerdawy, 2019).

It is maintained that the HRM function “is uniquely positioned to assist in both developing and implementing corporate social responsibility (CSR) and sustainability strategy” (Cohen et al., 2012, p.1). HR is constantly considered a key success factor for the implementation of policies , practices, and boosting sustainable performance (Sheehan, 2014). It is suggested that HRM practices affect organisational performance through their influence on employees’ work behavior and attitudes (Dumont et al., 2017). The social dimension of sustainable HRM is associated with the way people within the organization are treated and how the needs of external stakeholders are addressed (Stahl, 2020).

GHRM refers to the concern of HRM policies and practices regarding the corporate environmental schedule (Liu and Xie, 2013). It has been defined as “the policies, practices and systems that make employees of the organization green for the benefit of the individual, society, natural environment and the business (Opatha & Arulrajah, 2014).

GHRM has supported the paradigmatic understanding of the 'triple bottom line' concept; that is, GHRM involves practices aligned with the three pillars of environmental (plant), social (people), and economic (profit) sustainability and provides the organization long-term benefits (Yusoff et al., 2015; Uddin & Islam, 2015). Abdeen & sayed Ahmed (2019) demonstrated that GHRM, in general, enhances

managers' perception of financial sustainability. Both green training and development and green performance management are positively and significantly related with financial sustainability. Mousa & Othman (2020) have evidenced that GHRM practices had a positive influence on sustainable performance both environmentally and socially within healthcare organizations even if they were implemented at a moderate level.

Furthermore, GHRM has been described as a new effective management discipline that integrates environmental management to strengthen organisational performance through environmentally responsive management practices (Siyambalapitiya et al., 2018). Prior studies have established the positive connection between GHRM and firm performance (Renwick et al., 2013; O'Donohue & Torugsa, 2016). (4) O'Donohue and Torugsa (2016), for instance, studied the link between environmental management and organizational financial performance in the machinery and equipment manufacturing sector in Australia. Their findings revealed that Green HRM positively moderates the association between proactive environmental management and financial performance. Within the Tourism industry in Sri Lanka, Siyambalapitiya et al. (2018) identified some GHRM practices which strongly and positively supported the organization's environmental performance.

Al Kerdawy (2019) also verified that GHRM practices play an important role not only in improving employee well-being as well as in enhancing organizational performance. Employee green behavior at the workplace' has mediated

the relationship between GHRM practices’ and ‘social sustainability of organisations (Amrutha & Geetha, 2020). Employees practice task-related and non-task-related green behavior at the workplace that enhances social wellness and well-being leading to the complete realization of organizational sustainability goals.

Accordingly, through GHRM practices organizations will be able to get improvements in productivity, enhanced revenues, talent acquisitions, devoted labor, employee retention, and favorable reputation along with organisational competitiveness (Arulrajah & Opatha, 2016; Tulsi & Ji, 2020).

Within the management literature, the two concepts of GHRM and CSR are interrelated. GHRM is part of a broader corporate social responsibility program (Sathyapriya et al., 2013). HRM influences the way in which CSR is understood, developed, and enacted; similarly, how organizations approach CSR has implications for the treatment of workers (Úbeda-García et al., 2021).

CSR policies demand that all functional departments undertake green initiatives (Jamali et al., 2015), and for any organization, the performance of CSR activities cannot be imagined without the active participation of human resources. In other words, Corporate Social Responsibility requirements were the major reason for GHRM initiatives in many organisations (Amrutha & Geetha, 2020). When human resource managers perceive CSR philosophy appropriately, they will be more able to achieve CSR objectives throughout their operations. Green activities

from an environmental perspective and CSR covering the social perspective help the firms to attain competitive advantage and achieve sustainable performance (Zhao et al. 2021). GHRM supports CSR activities through green skills development, green motivation, and green involvement given empirical evidence of how both variables are connected (Voegtlin & Greenwood, 2016). A strong positive relationship was found between CSR and performance along with CSR and green practices Green practices were found to partially mediate the relationship between CSR and performance (Suganthi, 2019). Along the same line, Úbeda-García et al. (2021) results showed the existence of a direct and positive relationship between CSR and hotels performance in Spain. Besides, GHRM has an indirect effect on the relationship between CSR and hotel performance through affecting environmental outcomes. Lastly, the same outcome has been obtained by Zhao et al. (2021); their study's investigation evidenced a positive relationship between CSR and organizational performance. Moreover, the study generated hypotheses that green HRM practices and CSR are strongly related to sustainable performance.

The term "green employee" has been introduced by Mathapati (2013) as the product of GHRM. GHRM is directly in charge of creating a green employee who understands, appreciates, and practices green initiatives and maintains its green objectives within the HRM process of recruiting, hiring, training, compensating, developing, and advancing the firms human capital and business. Employee cooperation is a key component of social sustainability and helps to achieve the synergy effect of sharing experiences

with colleagues, leading to members' involvement (Staniškienė, & Stankevičiūtė, 2018)

Employees' green behavior involves the degree to which employees take personal eco-friendly initiatives in an organization, which will be influenced by the degree of 'Ability', 'Motivation' and 'Opportunity' provided to them by their employer (Úbeda-García et al., 2021). The ability, motivation, opportunity (AMO) theory explains organizations' green management that develops the abilities and skills of employees, motivates them to contribute towards green management, stimulates environmental activities and provides opportunities to improve in environmental aspects (Gill et al., 2021).

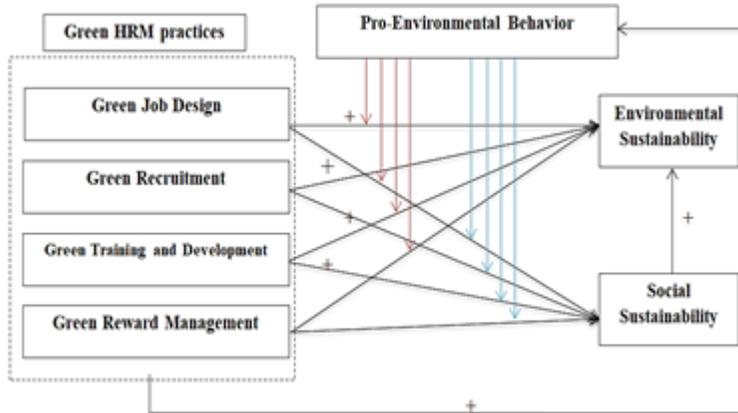
Environmental initiatives within the scope of HRM are a part of broader CSR programs because the role of HR is significant for achieving financial and sustainability results in any organization (Ahmad, 2015; Freitas, et al., 2020). Some studies have demonstrated that GHRM has a clear impact on the green behaviors of employees in the hospitality industry (Pham et al., 2020; Kim et al., 2019). Results have shown that employees' training and participation in green HRM practices are the main factors stimulating employees' commitment, green behaviors, and organizational citizenship behaviors toward the environment. Darvishmotevali & Altinay (2022) examined the impacts of green HRM on proactive employees' pro-environmental performance. The findings indicate that environmental awareness mediates the impacts between the two variables. Pro-environmental behaviour has similarly ascertained to mediate the influence of CSR initiatives on

the environmental performance of an organization (Ahmad et al, 2021).

Literature, in general, places greater priority on the need for CSR activities for achieving organization's sustainability in the present generation (Zhao et al. 2021). Nevertheless, it is uncertain how organization is practicing CSR in reality. Hence, it is important to examine the measures undertaken by organizations in an attempt to achieve their social and environmental sustainability. As aforementioned, the relevant material on GHRM is primarily focused on the Western world and industrial organisations. The phenomenon is still under-researched in Egypt and within the T&H context. Therefore, the objective of this study is to identify the gaps while exploring the status of GHRM practices in Egyptian T&H organisations.

### **Methodology**

The Study proposes the following model for the analysis of the relationship between GHRM practices and environmental and social dimensions that support the improvement of performance sustainability of the organisation through the moderating role of pro-environmental behaviour of the employees.



**Figure (1) research model**

The following hypotheses were developed to test the relationship within the study proposed model.

**H1:** The GHRM practices positively influence environmental sustainability

**H2:** The GHRM practices positively influence social sustainability

**H3:** The GHRM practices positively influence employees' pro-environmental behavior

**H4:** Employees' pro-environmental behavior plays a mediating role between GHRM and environmental sustainability

**H5:** Employees' pro-environmental behavior plays a mediating role between GHRM and social sustainability

### Population and sampling

A convenience sample of thirty establishments participated in the present study. Convenience sampling techniques is proved to be effective during the exploration stage of the research phenomenon (Saunders, et al, 2019).It included Egyptian tourism and hospitality organizations that engaged in CSR activities and practicing GHRM as displayed in table (1).

Type of organizations		Zoning area	Target ed sample
Tourism organizations	Tourism Companies	Cairo, Sharm El Sheikh, Hurghada, Alexandria	8
	Airports	Alexandria, Hurghada	2
	Flight companies	Cairo, Alexandria, Luxor	5
Hospitality Organizations	Hotels	Cairo, Sharm El Sheikh, Hurghada, Alexandria, Al Alamien, Marsa Alam, New Capital	14
	Congress Center	Sharm El Sheikh	1
<b>Total sample</b>			<b>30</b>

**Table (1) The research sample**

Table (2) indicates the respondents' profiles reflecting a sample of T&H organizations in the Egyptian market (50% hospitality organizations and (50%) tourism organizations. The largest percentage is hotels (N=15 – 50%) and the smallest percentage is international airports (N=2 – 6.6%). Regarding zoning analysis, the most of research sample was

located in both Cairo and Alexandria (N=7 – 26.7%) while only one organization in Luxor, Marsa Alam and New Capital (N=1 – 3.3%).

N		Total
<b><u>Type of organization</u></b>		
Hotels	15	30
Tourism Organization	8	
flight company	5	
International Airport	2	
<b><u>Zoning area</u></b>		
Cairo	8	30
Alexandria	8	
Sharm El Sheikh	7	
Hurghada	3	
Luxor	1	
Marsa Alam	1	
New Capital	1	

**Table (2) Sample demographic Data**

### **Instrument and measures**

A self-reported questionnaire was developed in the light of the prior studies instruments and then disseminated to HR managers of the organizations in order to collect the study data. 30 Valid questionnaires have been obtained.

The questionnaire consists of four main sections. *The first section* consists of 17 statements to measure GHRM practices applied in T&H organizations; *the second section* consists of 15 statements to measure environmental sustainability; *the third section* consists of 7 statements to measure Social Sustainability and *the fourth section*

consists of 6 statements to measure the Pro-Environmental Behavior that stated in the T&H organizations. Table (3) shows the construct development.

**Table (3) Items distribution on the constructs of research**

Dimension	Source	No of Items
<b><u>Green HRM Practices</u></b>		<b><u>17</u></b>
<b>Green Job design</b>	Renwick, <i>et al.</i> , (2013); Tang <i>et al.</i> , (2018)	<b>5</b>
<b>Green Recruitment</b>	Jackson <i>et al.</i> , (2011); Opatha, (2013); Ullah, (2017)	<b>5</b>
<b>Green Training and Development</b>	Jackson <i>et al.</i> , (2011); Opatha, (2013), Renwick <i>et al.</i> , (2013)	<b>3</b>
<b>Green Reward Management</b>	Mehta and Chugan, (2015);(Deshwal, 2015); Ullah, (2017)	<b>4</b>
<b><u>Environmental sustainability</u></b>		<b><u>15</u></b>
<b><u>Social Sustainability</u></b>		<b><u>7</u></b>
<b><u>Pro-Environmental Behavior</u></b>		<b><u>6</u></b>

### Data Reliability

Table (4) illustrates the internal consistency of the study's measurements with Cronbach's alpha equal (0.979) for the overall questionnaire.

Table (4) Reliability analysis

Measures	No. of Items	Cronbach`s alpha
<b>Overall Questionnaire</b>	<b>45</b>	<b>0.979</b>
<b>GHR Practices</b>	<b>17</b>	.965
Green job design	5	.971
Green recruitment	5	.967
Green training	3	.965
Green reward	4	.974
<b>Environmental sustainability</b>	<b>15</b>	.970
<b>Social sustainability</b>	<b>7</b>	.979
<b>Pro-environmental behavior</b>	<b>6</b>	.966

### Results and Discussion

The mean score analysis of the questionnaire indicated an attitude of "agree" as the respondents' attitude ranges from 3.318 (minimum value) to 3.952 (maximum value). Table (5) demonstrates the overall attitude for each questionnaire part.

**Table (5 ) Mean Score Analysis**

Variable	Mean score	Attitude
<b>GHR Practices</b>	3.646	Agree
- Green job design	3.894	Agree
- Green recruitment	3.613	Agree
- Green training	3.767	Agree
- Green reward	3.318	Neutral
<b>Environmental sustainability</b>	3.671	Agree
<b>Social sustainability</b>	3.952	Agree
<b>Pro-environmental behavior</b>	3.767	Agree

Table (6) represents the two-way mixed-effects model at the significance level of (.000) where the intraclass correlation reflects the single measure (a=.667) and (b=.991). In addition, the Pearson correlation coefficient was performed to confirm the strong correlation among research variables as the Correlation is significant at the 0.01 level (2-tailed).

**Table (6) The two-way correlation**

Intraclass Correlation Coefficient							
	Intraclass Correlation <sup>b</sup>	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.667 <sup>a</sup>	.556	.785	107.062	29	1508	.000
Average Measures	.991 <sup>c</sup>	.985	.995	107.062	29	1508	.000
Two-way mixed-effects model where people effects are random and measures effects are fixed.							
a. The estimator is the same, whether the interaction effect is present or not.							
b. Type C intraclass correlation coefficients using a consistency definition. The between-measure variance is excluded from the denominator variance.							
c. This estimate is computed assuming the interaction effect is absent because it is not estimable otherwise.							

Table (7) shows that there is a significant correlation between GHRM Practices and environmental sustainability as P-value is recorded by .903 ( $P < 0.01$ ) with Sig. (2-tailed) = .000. Former studies asserted the same positive relation between GHRM practices and the environmental performance of organizations in diverse contexts (Renwick et al., 2013; Donohue & Torugsa, 2016; Siyambalapitiya et al., 2018).

In addition, there is a significant correlation between GHRM and social sustainability as P-value is recorded by .673 ( $P < 0.01$ ) with Sig. (2-tailed) = .000. Besides a significant correlation between GHRM and social sustainability as P-value is recorded by .955 ( $P < 0.01$ ) with Sig. (2-tailed) = .000. Amrutha & Geetha (2020) have ascertained the same relation between GHRM and social sustainability mediated by the green behaviors of the employees.

Regarding the GHRM practices, it also recorded a significant correlation among them and research dependent variables as the most significant record exists between green training and pro-environmental behavior = .976 ( $P < 0.01$ ) with Sig. (2-tailed) = .000. And the less significant record exists between green job design and social sustainability = .474 ( $P < 0.01$ ) with Sig. (2-tailed) = .000 which indicates the existence of a significant correlation. This comes along with previous studies which have confirmed that GHRM has a clear impact on the green behaviors of employees in the hospitality industry (Pham et al., 2020; Kim et al., 2019). Results have shown that employees' training and participation in GHRM practices are the main factors stimulating employees' commitment,

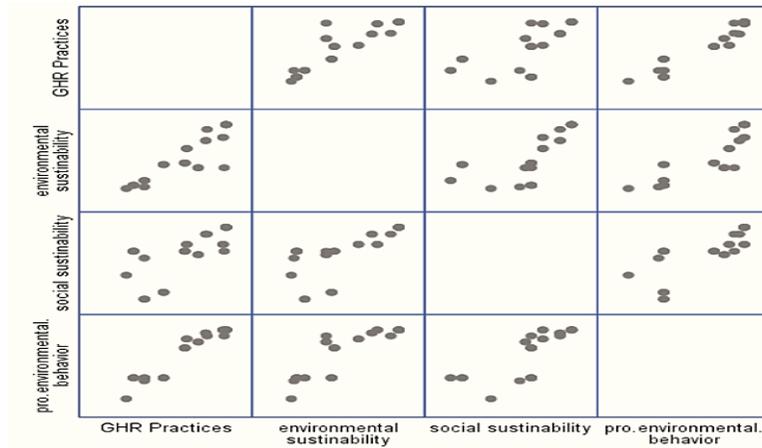
green behaviors, and organizational citizenship behaviors toward the environment.

**Table (7) The correlation coefficients between study variables**

		<b>Correlations</b>		
		<b>Environmental Sustainability</b>	<b>Social Sustainability</b>	<b>Pro-Environmental behavior</b>
<b>GHRM Practices</b>	<i>Pearson Correlation</i>	.903**	.673**	.955**
	Sig. (2-tailed)	.000	.000	.000
	N	30	30	30
<b>Green Job Design</b>	<i>Pearson Correlation</i>	.811**	.474**	.864**
	Sig. (2-tailed)	.000	.000	.000
	N	30	30	30
<b>Green Recruitment</b>	<i>Pearson Correlation</i>	.828**	.790**	.950**
	Sig. (2-tailed)	.000	.000	.000
	N	30	30	30
<b>Green Training</b>	<i>Pearson Correlation</i>	.883**	.698**	.976**
	Sig. (2-tailed)	.000	.000	.000
	N	30	30	30
<b>Green Reward</b>	<i>Pearson Correlation</i>	.864**	.547**	.800**
	Sig. (2-tailed)	.000	.002	.000
	N	30	30	30
** . Correlation is significant at the 0.01 level (2-tailed).				

Data generated from table (7) (correlation analysis) is confirmed by the SCATTERPLOT Matrix in figure (2)

which reflect the strong linear relation among research variables ( $R^2$ ) = 0.935



**Figure (2) SCATTERPLOT Matrix for research variables**

Table (8) of regression analysis also confirms the significant correlation among all research variable as GHRM Practices significantly correlates and influence environmental sustainability ( $R^2 = .815$ ,  $\beta = .903$ , Sig.000) as the variance between the two variables could be estimated by (80%), in addition, GHRM Practices slightly correlates and influence social sustainability ( $R^2 = .435$ ,  $\beta = .673$ , Sig.000) as the variance between the two variables could be estimated by (43%) and GHRM Practices significantly correlates and influence pro-environmental behavior ( $R^2 = .911$ ,  $\beta = .955$ , Sig.000) as the variance between the two variables could be estimated by (91%).

**Table (8) Regression analysis of research variables**

	<b>R</b>	<b>R<sup>2</sup></b>	<b>Adjusted R<sup>2</sup></b>	<b><math>\beta</math></b>	<b>Sig.</b>
Regression analysis between GHRM Practices and environmental sustainability					
<b>environmental sustainability</b>	.903 <sup>a</sup>	.815	.808	.903	.000
Regression analysis between GHRM Practices and social sustainability					
<b>social sustainability</b>	.673 <sup>a</sup>	.435	.434	.673	.000
Regression analysis between GHRM Practices and Pro-Environmental behavior					
<b>Pro- Environmental behavior</b>	.955 <sup>a</sup>	.911	.908	.955	.000

In addition to the correlation and regression analysis of the research variable which indicates the acceptance of research hypotheses, the PLS-SEM modeling was used to confirm these results according to path coefficient and P-value.

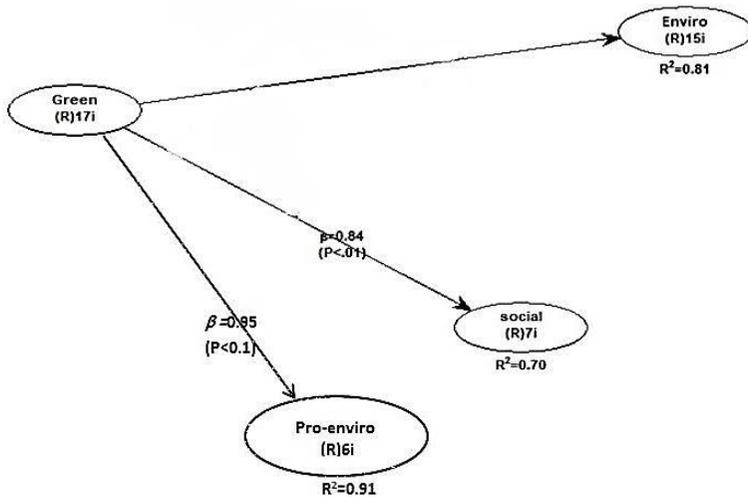


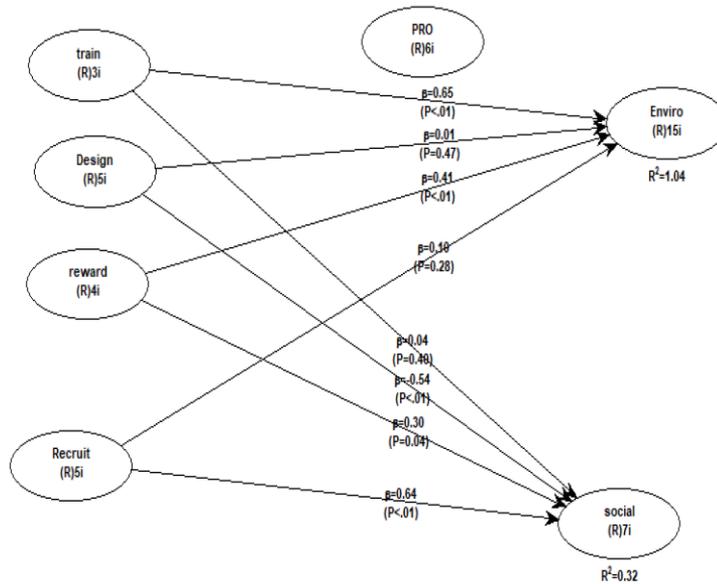
Figure (3) Test of research hypotheses

Figure (3) indicates that there is a significant positive influence between GHRM practices and environmental and social sustainability in light of the significance of P-Value < 0.1.

Regarding *hypothesis one*, the analysis indicates that there is a positive influence between GHRM and environmental sustainability ( $R^2 = 0.81$ ,  $\beta =0.90$ ,  $P<.01$ ) as the change of GHRM practices leads to an influence on environmental sustainability by 81%, that makes **H1 accepted**. In addition, Regarding *hypothesis two*, the analysis indicates that there is a positive influence between GHRM and social sustainability ( $R^2 = 0.70$ ,  $\beta =0.84$ ,  $P<.01$ ) as the change of GHRM practices leads to an influence on social sustainability by 91%, that makes **H2 accepted**. Besides that, Regarding *hypothesis three*, the analysis indicates that

there is a positive influence between GHRM and environmental sustainability ( $R^2 = 0.91$ ,  $\beta = 0.95$ ,  $P < .01$ ) as the change of GHRM practices leads to an influence on environmental sustainability by 91%, that makes **H3 accepted**.

As for the inter-GHRM practices, figure (4) shows the significant influence between the independent components (Green Job Design, Green Recruitment, Green Training and Green Reward) and the dependent components (Environmental Sustainability, Social Sustainability and Pro-environmental behavior).



**Figure (4) influence between independent and dependent variables**

As for *hypothesis four and hypothesis five*, the path coefficient in figure (3) shows no influence of pro-environmental behavior as a mediator and environmental sustainability as the recorded p-values didn't indicate any influence of pro-environmental behaviors and environmental besides social sustainability, and this indicates that **H4 and H5 were rejected**. This contradicted the prior research of Ahmad et al, (2021) in which Pro-environmental behavior has been ascertained to mediate the influence of CSR initiatives on the environmental performance of an organization

On the other hand, an additional path coefficient test (figure 4) was performed to touch even there is a moderating effect of pro-environmental behaviors and environmental besides social sustainability or not.

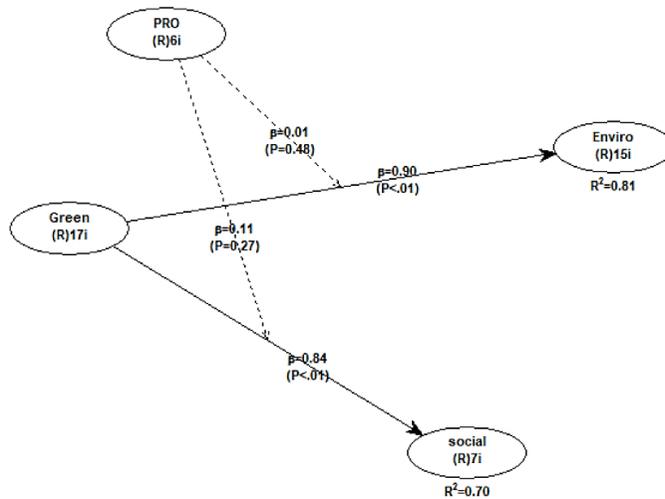


Figure (5) the moderating effect of pro-environmental behavior

According to the path coefficient test of PLS-SEM, Figure (5) indicates that The coefficient for the latent interaction construct has no positive or negative statistically significant as a result, there is no moderating effect of pro-environmental behavior and environmental sustainability ( $\beta = 0.01$ ,  $P=0.48$ ) besides no effect on social sustainability ( $\beta = 0.11$ ,  $P=0.27$ ).

A summary of path coefficient among research variables is figured in table (9)

**Table (9) path coefficient among research variables**

Research variables		Green Job Design	Green Recruitment	Green Training	Green Reward
Environmental Sustainability	Path coefficient	0.015	0.100	0.649	0.413
	P-Values	<b>0.468</b>	<b>0.285</b>	<b>&lt;0.001</b>	<b>0.005</b>
Social Sustainability	Path coefficient	-0.536	0.636	0.045	0.296
	P-Values	<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>0.402</b>	<b>0.035</b>
Pro-environmental behavior	Path coefficient	0.423	0.533	0.410	0.065
	P-Values	<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>&lt;0.001</b>

### Conclusion and Implications

The present study highlighted the role of HRM as a vital component for greening the T&H organizations and in what way the integration of environmental management and HRM contributes to the organisational performance sustainability.

The study model was tested to evaluate the relationships among the study measures namely; GHRM practices,

employees' pro-environmental behaviors, Environmental sustainability and Social sustainability. The results indicated a strong positive relation between GHRM and sustainability in two dimensions. Conversely, the mediating role of employees' environmental behaviors between GHRM practices and Environmental, and social sustainability could not be supported.

The study added the body of knowledge on green human resource management practices and corporate social responsibility in the pursuit of better performance towards society, the environment, and the overall sustainability of T&H organisations. The findings of this study make a good contribution to fulfill the literature gap of green human resource management practices and corporate social responsibility studies within the developing world and within an important service sector such as Tourism and Hospitality. Exploring the area of social sustainability is another contribution of the study.

However, the study still has some limitations. Initially, there is limited awareness about the GHRM in Egypt particularly among tourism organisations. Farther, the small sample was used because of the focus on organizations that reflect green or sustainable practices. Hence, future studies are encouraged to test the relationship between GHRM and sustainability on a broader level. It is also beneficial to conduct qualitative studies to triangulate the proposed results of the present study other than developing a comprehensive understanding of phenomena.

Finally, managers must transform CSR strategies into GHRM practices that can achieve organizations objectives

effectively. Therefore, managers must take into consideration raising employees' awareness of CSR activities, enacting a healthy work environment, and devoting more support for employee environmental behavior. Organizations should also attract new candidates that are aware of CSR practices.

### References

- Abdeen, T. H., & Ahmed, N. H. S. (2019). Perceived financial sustainability of tourism enterprises: Do green human resource management practices really matter. *Journal of Tourism and Hospitality Management*, 7(2), 173-185.
- Ahmad, N., Ullah, Z., Arshad, M. Z., waqas Kamran, H., Scholz, M., & Han, H. (2021). Relationship between corporate social responsibility at the micro-level and environmental performance: The mediating role of employee pro-environmental behavior and the moderating role of gender. *Sustainable Production and Consumption*, 27, 1138-1148.
- Ahmad, S. (2015). Green human resource management: Policies and practices. *Cogent business & management*, 2(1), 1030817.
- Al Kerdayy, M. M. A. (2019). The role of corporate support for employee volunteering in strengthening the impact of green human resource management practices on corporate social responsibility in the Egyptian firms. *European Management Review*, 16(4), 1079-1095.
- Amjad, F., Abbas, W., Zia-UR-Rehman, M., Baig, S. A., Hashim, M., Khan, A., & Rehman, H. U. (2021). Effect

of green human resource management practices on organizational sustainability: the mediating role of environmental and employee performance. *Environmental Science and Pollution Research*, 28(22), 28191-28206.

- Amrutha, V. N., & Geetha, S. N. (2020). A systematic review on green human resource management: Implications for social sustainability. *Journal of Cleaner Production*, 247, 119131
- Arulrajah, A. A., & Opatha, H. H. D. N. P. (2016). Analytical and theoretical perspectives on green human resource management: A simplified underpinning.
- Chan, H. K., He, H., & Wang, W. Y. (2012). Green marketing and its impact on supply chain management in industrial markets. *Industrial Marketing Management*, 41(4), 557-562.
- Cohen, E., Taylor, S., & Muller-Camen, M. (2012). HRM's role in corporate social and environmental sustainability. *SHRM report*, 1, 1-16.
- Darvishmotevali, M., & Altinay, L. (2022). Green HRM, environmental awareness and green behaviors: The moderating role of servant leadership. *Tourism Management*, 88, 104401.
- Dumont, J., Shen, J., & Deng, X. (2017). Effects of green HRM practices on employee workplace green behavior: The role of psychological green climate and employee green values. *Human resource management*, 56(4), 613-627.

- El-Megharbel, N. (2015). Sustainable development strategy: Egypt's vision 2030 and planning reform. *Egypt: Ministry of Planning*.
- Elshaer, I. A., Sobaih, A. E. E., Aliedan, M., & Azzaz, A. (2021). The effect of green human resource management on environmental performance in small tourism enterprises: mediating role of pro-environmental behaviors. *Sustainability*, 13(4), 1956.
- Freitas, W. R. D. S., Caldeira-Oliveira, J. H., Teixeira, A. A., Stefanelli, N. O., & Teixeira, T. B. (2020). Green human resource management and corporate social responsibility: Evidence from Brazilian firms. *Benchmarking: An International Journal*, 27(4), 1551-1569.
- Gardberg, N. A., & Fombrun, C. J. (2006). Corporate citizenship: Creating intangible assets across institutional environments. *Academy of management Review*, 31(2), 329-346.
- Gill, A., Ahmad, B., & Kazmi, S. (2021). The effect of green human resource management on environmental performance: The mediating role of employee eco-friendly behavior. *Management Science Letters*, 11(6), 1725-1736.
- Haiying, Z. (2020, January). Egypt Tourism and Its Importance in Sustainable Development Goals. In *Third International Conference on Social Transformation, Community and Sustainable Development (ICSTCSD 2019)* (pp. 202-205). Atlantis Press.
- Jabbour, C. J. C., & de Sousa Jabbour, A. B. L. (2016). Green Human Resource Management and Green Supply

Chain Management: linking two emerging agendas. *Journal of Cleaner Production*, 112, 1824-1833.

- Jackson, S. E. (2012). Portrait of a slow revolution toward environmental sustainability. *Managing human resources for environmental sustainability*, 3-20.
- 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.
- 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.
- Lee, J. W., & Kwag, M. (2013). Green growth and sustainability: The role of tourism, travel and hospitality service industry in Korea. *Journal of Distribution Science*, 11(7), 15-22.
- Liu, T., & Xie, P. (2013). Research on dynamic implementation of green human resources management. In *Informatics and Management Science VI* (pp. 83-91). Springer, London.
- Mashala, Y. M. (2018). Green human resource management and environmental sustainability in Tanzania: A review and research agenda. *International Journal of Academic Multidisciplinary Research*, 2(12), 60-68.
- Mathapati, C. M. (2013). Green HRM: A strategic facet. *Tactful Management Research Journal*, 2(2), 1-6

- Mousa, S. K., & Othman, M. (2020). The impact of green human resource management practices on sustainable performance in healthcare organisations: A conceptual framework. *Journal of Cleaner Production*, 243, 118595.
- O'Donohue, W., & Torugsa, N. (2016). The moderating effect of 'Green'HRM on the association between proactive environmental management and financial performance in small firms. *The International Journal of Human Resource Management*, 27(2), 239-261.
- Opatha, H. H. D. N. P. (2013), Green Human Resource Management: A Simplified Introduction, HR Dialogue, Department of HRM, Faculty of Management Studies and Commerce, University of Sri Jayewardenepura, pp. 22-41.
- Opatha, H. H. P., & Arulrajah, A. A. (2014). Green human resource management: Simplified general reflections. *International Business Research*, 7(8), 101.
- Pham, N. T., Thanh, T. V., Tučková, Z., & Thuy, V. T. N. (2020). The role of green human resource management in driving hotel's environmental performance: Interaction and mediation analysis. *International Journal of Hospitality Management*, 88, 102392.
- Renwick DWS, T Redman and S Maguire (2013) Green human resource management: a review and research agenda. *International Journal of Management Reviews* 15(1), 1–14.
- Renwick, D. W., Redman, T., & Maguire, S. (2013). Green human resource management: A review and

- research agenda. *International journal of management reviews*, 15(1), 1-14.
- Sathyapriya, J., Kanimozhi, R., & Adhilakshmi, V. (2013). Green HRM-Delivering high performance HR systems. *International Journal of Marketing and Human Resource Management*, 4(2), 19-25.
  - Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research Methods for Business Students*.
  - Sharma, R., & Gupta, N. (2015, January). Green HRM: An innovative approach to environmental sustainability. In *Proceeding of the Twelfth AIMS International Conference on Management* (pp. 2-5).
  - Sheehan, M. (2014). Human resource management and performance: Evidence from small and medium-sized firms. *International Small Business Journal*, 32(5), 545-570.
  - Siyambalapatiya, J., Zhang, X., & Liu, X. (2018). Green human resource management: A proposed model in the context of Sri Lanka's tourism industry. *Journal of Cleaner Production*, 201, 542-555.
  - Stahl, G. K., Brewster, C. J., Collings, D. G., & Hajro, A. (2020). Enhancing the role of human resource management in corporate sustainability and social responsibility: A multi-stakeholder, multidimensional approach to HRM. *Human Resource Management Review*, 30(3), 100708.
  - Staniškienė, E., & Stankevičiūtė, Ž. (2018). Social sustainability measurement framework: The case of employee perspective in a CSR-committed organisation. *Journal of cleaner production*, 188, 708-719.

- Tang, G., Chen, Y., Jiang, Y., Paille, P., & Jia, J. (2018). Green human resource management practices: scale development and validity. *Asia Pacific Journal of Human Resources*, 56(1), 31-55.
- TULSI, P., & JI, Y. (2020). A conceptual approach to green human resource management and corporate environmental responsibility in the hospitality industry. *The Journal of Asian Finance, Economics and Business*, 7(1), 195-203.
- Úbeda-García, M., Claver-Cortés, E., Marco-Lajara, B., & Zaragoza-Sáez, P. (2021). Corporate social responsibility and firm performance in the hotel industry. The mediating role of green human resource management and environmental outcomes. *Journal of Business Research*, 123, 57-69.
- Uddin, M. M., & Islam, R. (2015). Green HRM: Goal attainment through environmental sustainability. *Journal of Nepalese Business Studies*, 9(1), 14-19.
- Voegtlin, C., & Greenwood, M. (2016). Corporate social responsibility and human resource management: A systematic review and conceptual analysis. *Human Resource Management Review*, 26(3), 181-197.
- Yusoff, Y. M., Ramayah, T., & Othman, N. Z. (2015). Why examining adoption factors, HR role and attitude towards using E-HRM is the start-off in determining the successfulness of green HRM. *J. Adv. Manag. Sci*, 3(4).
- Zaid, A.A., Jaaron, A.A., Bon, A.T., 2018a. The impact of green human resource management and green supply chain management practices on sustainable performance: an empirical study *J. Clean. Prod.* 204, 965e979.