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.
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).

Table (1) The research sample

<table>
<thead>
<tr>
<th>Type of organizations</th>
<th>Zoning area</th>
<th>Targeted sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tourism organizations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tourism Companies</td>
<td>Cairo, Sharm El Sheikh, Hurghada, Alexandria</td>
<td>8</td>
</tr>
<tr>
<td>Airports</td>
<td>Alexandria, Hurghada</td>
<td>2</td>
</tr>
<tr>
<td>Flight companies</td>
<td>Cairo, Alexandria, Luxor</td>
<td>5</td>
</tr>
<tr>
<td>Hospitality Organizations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hotels</td>
<td>Cairo, Sharm El Sheikh, Hurghada, Alexandria, Al Alamien, Marsa Alam, New Capital</td>
<td>14</td>
</tr>
<tr>
<td>Congress Center</td>
<td>Sharm El Sheikh</td>
<td>1</td>
</tr>
<tr>
<td>Total sample</td>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>
only one organization in Luxor, Marsa Alam and New Capital (N=1 – 3.3%).

<table>
<thead>
<tr>
<th>Type of organization</th>
<th>N</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotels</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>Tourism Organization</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>flight company</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>International Airport</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Zoning area</th>
<th>N</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cairo</td>
<td>8</td>
<td>30</td>
</tr>
<tr>
<td>Alexandria</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Sharm El Sheikh</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Hurghada</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Luxor</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Marsa Alam</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>New Capital</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

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>
<thead>
<tr>
<th>Dimension</th>
<th>Source</th>
<th>No of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Job design</td>
<td>Jackson et al., (2011); Opatha, (2013); Ullah, (2017)</td>
<td>5</td>
</tr>
<tr>
<td>Social Sustainability</td>
<td>Zaid et al., (2018)</td>
<td>7</td>
</tr>
<tr>
<td>Pro-Environmental Behavior</td>
<td>Elshaer et al., (2021)</td>
<td>6</td>
</tr>
</tbody>
</table>
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

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

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

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

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

<table>
<thead>
<tr>
<th>Intra-class Correlation Coefficient</th>
<th>95% Confidence Interval</th>
<th>F Test with True Value 0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lower Bound</td>
<td>Upper Bound</td>
</tr>
<tr>
<td>Single Measures</td>
<td>.667a</td>
<td>.556</td>
</tr>
<tr>
<td>Average Measures</td>
<td>.991c</td>
<td>.985</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th>Environmental Sustainability</th>
<th>Social Sustainability</th>
<th>Pro-Environmental behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GHRM Practices</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pearson Correlation</strong></td>
<td>.903**</td>
<td>.675**</td>
<td>.955**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td><strong>Green Job Design</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pearson Correlation</strong></td>
<td>.811**</td>
<td>.474**</td>
<td>.864**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td><strong>Green Recruitment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pearson Correlation</strong></td>
<td>.828**</td>
<td>.790**</td>
<td>.950**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td><strong>Green Training</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pearson Correlation</strong></td>
<td>.883**</td>
<td>.698**</td>
<td>.976**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td><strong>Green Reward</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pearson Correlation</strong></td>
<td>.864**</td>
<td>.547**</td>
<td>.800**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.002</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>

**. 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 \((R^2) = 0.935\)
Raising Environmental and Social Sustainability through Green Human Resources Practices in Egyptian Tourism & Hospitality Organisations; the Mediating Role of Pro-Environmental Behaviors

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 (R² = .815, β = .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 (R² = .435, β = .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 (R² = .911, β = .955, Sig.000) as the variance between the two variables could be estimated by (91%).
Table (8) Regression analysis of research variables

<table>
<thead>
<tr>
<th>Regression analysis</th>
<th>R</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>β</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>environmental sustainability</td>
<td>.903</td>
<td>.815</td>
<td>.808</td>
<td>.903</td>
<td>.000</td>
</tr>
<tr>
<td>social sustainability</td>
<td>.673</td>
<td>.435</td>
<td>.434</td>
<td>.673</td>
<td>.000</td>
</tr>
<tr>
<td>Pro-Environmental behavior</td>
<td>.955</td>
<td>.911</td>
<td>.908</td>
<td>.955</td>
<td>.000</td>
</tr>
</tbody>
</table>

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).
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

<table>
<thead>
<tr>
<th>Research variables</th>
<th>Green Job Design</th>
<th>Green Recruitment</th>
<th>Green Training</th>
<th>Green Reward</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Sustainability</td>
<td>Path coefficient</td>
<td>0.015</td>
<td>0.100</td>
<td>0.649</td>
</tr>
<tr>
<td></td>
<td>P-Values</td>
<td>0.468</td>
<td>0.285</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Social Sustainability</td>
<td>Path coefficient</td>
<td>-0.536</td>
<td>0.636</td>
<td>0.045</td>
</tr>
<tr>
<td></td>
<td>P-Values</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
<td>0.402</td>
</tr>
<tr>
<td>Pro-environmental behavior</td>
<td>Path coefficient</td>
<td>0.423</td>
<td>0.533</td>
<td>0.410</td>
</tr>
<tr>
<td></td>
<td>P-Values</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

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

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


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


