

SPECIAL ISSUE

Creating organizational value and sustainability through green HR practices: An innovative approach with the moderating role of top management support

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Abstract

Green human resource management (GHRM) seeks to reorient human resource strategy and practices to an organization's environmental sustainability goals. A small body of research has so far shown that GHRM is positively related to organizational sustainability, yet the results are somewhat variable. This calls into question regarding the boundary conditions of this relationship. In this study, the moderating role of top management team (TMT) support has been examined as senior managers have a key role to play in ensuring that GHRM is valued, widely recognized, and implemented as intended. Based on the existing literature, a model has been developed and then tested with partial least square structural equation modeling, with feedback from 372 human resource managers across several organizations. The results show a positive relationship between GHRM and sustainability, and the results also show that the TMT support strengthens this relationship. Importantly, the study reveals a positive and significant relationship between sustainability and organizational performance.

KEYWORDS

appraisal, compensation, GHRM practices, organization performance, recruitment, sustainability, TMT, training

1 | INTRODUCTION

For adopting sustainable practices, several organizations adopt different procedures and strategies (Raut et al., 2017). Organizations work in different ways to mitigate societal and environmental issues in consonance with existing regulatory frameworks of countries where the organizations do their business (Quesada et al., 2018). Since organizations' human resources (HR) are considered the most important and which cannot be copied by competitors, researchers believe that it is prudent to align human resources with environmental issues to derive synergistic outputs (Jabbour & Santos, 2008; Renwick et al., 2015; Yong et al., 2019). However, to ensure that integrating human resources with environmental issues derives organization sustainability, HR managers need to document congenial policies and practices to correlate environmental aspects with organizational operations (Masri & Jaaron, 2017). This integration may

be achieved by deployment of green human resource management (GHRM) practices that would target environmental sustainability (Aggarwal & Agarwala, 2022; Ali et al., 2022; Jackson et al., 2011), which is perceived to impact organizational sustainability. For such integration, a set of actions needs to be taken. This includes recruiting employees who are environmentally aware (Agyabeng-Mensah & Tang, 2021; Saeed et al., 2018; Thrassou et al., 2021). If employees become more innovative, they will be more aware of environmental issues. Their enhanced awareness will help their organizations to achieve better sustainable performance (Sempere-Ripoll et al., 2020). Organizations can improve their innovativeness by creating a better platform for research and development activities, which could also help the employees to be more environmentally conscious (Natalicchio et al., 2017). Employees' environmental awareness could be improved if the organizations promote open innovation practices beyond their internal boundaries (Bogers

et al., 2020; Chesbrough, 2003). Open innovation helps organizations to overcome the existing deficiencies in their employees' operational and technological knowledge as they gain more expertise and skills to support their firms to adopt GHRM practices (Naseer et al., 2021). Thus, it would be an incremental advantage if organizations rely on open innovation practices to enhance their environmental sensitivity and eventually achieve their sustainable goals (Basile et al., 2022). Moreover, organizations need to inform employees about their environmental and societal commitments (Gholami et al., 2016; Piccolo et al., 2021; Teixeira et al., 2012). The management of organizations should continuously evaluate employees' performance and incentivize them to achieve their sustainable goals (Basile et al., 2022; Bhattacharjee et al., 2021; De Stefano et al., 2018; Merriman & Sen, 2012). Management also needs to guide the employees in discharging their social responsibilities and to address environmental issues without incurring losses for the organizations (Aust et al., 2019; Kramar, 2014).

Thus, it has become pertinent that to adopt GHRM for organizational sustainability, procedures and practices must be thoroughly overhauled. For such complex strategic change, support from the top management team (TMT) is crucial, as the top leader must interact with the team when deciding to adopt GHRM. This is called leader-TMT dynamics (Chatterjee, 2019a; Heyden et al., 2017; Su et al., 2019). Studies have demonstrated that by organizations implementing GHRM practices, it is possible to improve their efficiency and performance, reduce unnecessary expenditure, mitigate environmental waste, and establish a green culture (Aust et al., 2019; De Stefano et al., 2018).

However, no studies are available which explicitly explained how an organization could become sustainable by adopting GHRM practices. Also, there are limited studies that investigated how the impacts of GHRM practices on organization sustainability could be moderated by top management team support (Masri & Jaaron, 2017; Su et al., 2019). In such a scenario, the aim of this study is to address the following objectives:

- [RO1]. To examine the impacts of green human resource management practices on organization sustainability.
- [RO2]. To find out how organization sustainability influences organization performance.
- [RO3]. To investigate the moderating role of top management team support on green human resource management practices.

The above ROs have been addressed by analyzing the inputs of 372 respondents in the survey. A theoretical model has been developed and then validated with the factor-based PLS-SEM approach. The empirical findings of this study have been substantiated by integrating institutional theory (Oliver, 1997; Scott, 2008) and resource-based view (RBV) (Barney, 1991) since neither perspective alone could explicitly explain how different GHRM practices could improve organizational performance, mediated through organizational sustainability, and moderated by top management team support.

2 | LITERATURE REVIEW

Green HRM (GHRM) is interpreted as 'the systematic, planned alignment of typical human resource management practices with the organization's environmental goals' (Jabbour, 2013, p. 147–148). GHRM is associated with the target that employees should value the organization's environmental commitment. Green initiatives are actualized by systematic change and translated into action by employees who believe in and accept them (Acquah et al., 2021; Bag & Gupta, 2020; Mishra et al., 2014). GHRM is implemented in organizations through HRM practices that include recruiting a suitable workforce and training the recruits, then evaluating their performance and offering rewards when appropriate (Chatterjee, 2020; Renwick et al., 2013; Subramanian & Suresh, 2022). Other studies have observed that GHRM practices include training employees to be more environmentally aware and more sensitive to their organization's corporate social responsibility and environmental commitment, which impacts organizational sustainability (Bombiak & Marciniuk-Kluska, 2018; Thrassou, Chaudhuri, et al., 2020). Different studies have noted that organizations can improve their GHRM capability if their employees become more creative. Employees' creativity improves innovativeness, which could improve the organizations' open innovation practices (Bertello et al., 2022; Chesbrough, 2003; Naseer et al., 2021). Open innovation is conceptualized as a process which involves the inflow and outflow of knowledge to foster innovation as the external market expands (Bacon et al., 2019). To implement GHRM practices effectively, recruiting talented employees is important. It is ensured to attract talented employees if the organization has a good reputation as a green employer (Chatterjee, 2019b; Phillips, 2007). Many organizations acknowledged the strategic contribution of GHRM in the context of their sustainability agenda. However, their environmental initiatives did not receive the expected response from the employees (Masri & Jaaron, 2017; Nguyen et al., 2020). In such a scenario, integrating HRM and environmental management was felt necessary (Ghosh et al., 2020; Renwick et al., 2013). Organizations could attain better sustainability by encouraging employees' pro-environmental behavior (Belyaeva et al., 2020; Paillé et al., 2014); however, most studies looked at pro-environmental behavior outside the workplace (Paillé et al., 2014; Thrassou, Vrontis, et al., 2020). Some studies prioritized the synergistic approach, establishing a nexus between organizational green initiatives and top management team support to influence the employees' behavior (Delistavrou et al., 2019; Dumont et al., 2017; Guerci et al., 2016; Robertson & Barling, 2013). To promote a green revolution, organizations should put more effort into minimizing the environmental destruction by creating products that are nontoxic and cause minimal environment pollution (Liu, 2010; Ozen & Kusku, 2009).

Currently, many organizations have implemented a proactive, strategic tool which is known as an environmental management system (EMS) to ensure sustainability and enjoy better performance (Daily & Haung, 2001). EMS includes proper planning, commitment to policy, implementation, evaluation, appraisal, and improvement (Hersey, 1998; Hosain, 2016). Even after several studies on green marketing, green

management, and green accounting, gaps are still found evident in the literature on the impact of environmental issues on human resource management (Hosain & Rahman, 2016; Saraswat, 2015). Thus, Renwick et al. (2013) found that organizations can execute GHRM by updating various HR practices, including recruiting a suitable workforce, imparting proper training to the employees, evaluating workforce performance, and granting rewards. Another study demonstrated that green HRM practices could be actualized by developing employees' awareness regarding CSRs and by ensuring environmental commitments are adhered to (Bombiak & Marciniuk-Kluska, 2018). Other studies have recommended that to ensure better GHRM, there is a need to integrate HRM practices and proper environmental management (Masri & Jaaron, 2017; Renwick et al., 2013). Although these studies show the benefits of GHRM in organizations, limited extant literature was found that investigated how GHRM practices could ensure green organizational value and sustainability in organizations through top management team support. Therefore, this present study has attempted to bridge this literature gap.

3 | THEORETICAL BACKGROUND AND DEVELOPMENT OF CONCEPTUAL MODEL

3.1 | Theoretical background

For long-term sustainability, organizations need to focus on environmental and societal aspects as much as financial performance (Deshwal, 2015). The environment can create opportunities as well as threaten a business, therefore, decision-makers must consider environmental effects. This is why green management is so important for organizations, as it demands them to establish a balance between business growth for wealth creation and protection of natural resources that helps future generations to thrive (Daily & Haung, 2001). Thus, the integration of HRM and environmental issues, known as GHRM, is perceived to ensure organizational sustainability, and researchers need to identify the factors that impact organizational sustainability in the GHRM context.

In this context, this study applies institutional theory (Oliver, 1997; Scott, 2008). This theory investigates how organizations may adopt and diffuse schemes, routines, norms, and technology over time (Richard, 2004). This theory is perceived to be effective for explaining how implementing new technology or schemes affects incremental changes and institutional sustainability. This theory is "composed of cultural-cognitive, normative and regulative elements that, together with associative activities and resources, provide stability and meaning for social life" (Scott, 1995, p. 33). Institutional theory posits that an organization can improve its quality by implementing a new system. It is also necessary to enhance employees' capabilities to assimilate and make the best use of resources when adopting a new system (Wallin & Fuglsang, 2017). Organizations rarely achieve pure stability, but they always undergo procedural changes in the quest for better performance. It is the main theme of institutional theory (Scott, 2008). From the perspective of the paradigm shift from HRM practices to

GHRM practices, organizations must have the ability to mobilize and utilize resources in the best possible way to ensure organizational sustainability and better organizational performance (Massi et al., 2020).

The present study has applied resource-based view (RBV) (Barney, 1991; Oliver, 1997) to identify how different factors help to improve organizational performance triggered by organizational sustainability in the context of GHRM. The authors perceived this theoretical focus to be the best choice to correlate HR practices and organizational sustainability (Jabbour & Santos, 2008). With RBV, we can understand how an organization can use its resources to ensure organizational sustainability and organizational performance while it reshapes its processes and practices (Kipley et al., 2012). In the present study, the authors consider human resources to be the best resources for GHRM to integrate with environmental issues to obtain synergistic outputs. According to Yong et al. (2019), GHRM impacts on organizational sustainability. As such, in terms of RBV, organizations should improve the quality of their resources. This concept is also supported by institutional theory (Wallin & Fuglsang, 2017).

The proponents of RBV categorically maintain that an organization that possesses resources which are simultaneously valuable, rare, inimitable, and non-substitutable (VRIN) achieves competitive advantage (Sikora et al., 2016; Yaseen et al., 2016). The earlier, classic view considered that strategic investment, which can deter others from entering the market and raise profitability, is a vital factor for ensuring organizations stay competitive. However, Aziz and Samad (2016) argued that RBV has an intra-organizational focus, and Wójcik (2015) found that organizations can gain competitive advantage by utilizing their in-house VRIN resources. Hence, an organization's GHRM practices could be improved by developing human resource ability, which is construed by RBV to be one of the VRIN capabilities (Barney, 1991). Jackson and Seo (2010) asserted that by paying more attention to greening human resources, an organization can become more productive to ensure sustainability. Therefore, when viewed through RBV, to ensure organizational sustainability, GHRM must improve the quality of human resources. As already mentioned, GHRM practices can be improved by recruiting employees who are environmentally aware, training the employees to understand the organization's environmental and societal commitments, continuously evaluating employees' performance, and by incentivizing the employees to believe and honor green culture (De Stefano et al., 2018; Merriman & Sen, 2012; Teixeira et al., 2012).

3.2 | Development of hypotheses and conceptual model

From the studies of literature and from the inputs of the theories, it has been possible to identify the determinants that impact organization sustainability, which in turn triggers performance in the context of GHRM. The moderating effects of top management team support on organization sustainability have also been included. In the following subsections, these factors will be discussed as they help to formulate hypotheses.

3.2.1 | Employee recruitment (ER)

An organization's commitment toward GHRM is considered an important condition for attracting environmentally conscious candidates (Asadi et al., 2017). Conversely, recruiting qualified employees is a requirement for GHRM success (Mathis & Jackson, 2011). The newly hired employees should also have a pro-environmental mindset (Chaudhuri, 2021; Renwick et al., 2013). Organizations should communicate their sustainability agenda to prospective candidates through several touch points, including their websites and other places (Ghosh et al., 2021; González et al., 2022; Guerri et al., 2016). Organizations must ensure and prioritize GHRM practices to attract environmentally conscious candidates (Wehrmeyer, 1996). Prospective employees that perceive that an organization accepts green culture as the norm for ensuing organization sustainability will appropriately reshape their pro-environmental behavior (Molla et al., 2014). Accordingly, it is hypothesized as follows.

H1. Employee recruitment (ER) positively impacts organization sustainability (OS) in the context of GHRM practices.

3.2.2 | Employee training (ET)

An organization's attempt to change its HRM practices to GHRM practices to promote a green culture needs to properly reorientate the employees' work practices. Therefore, they need adequate training (Jackson et al., 2011; Kraus et al., 2023; Mahto et al., 2023), which is vital to promote, manage, and implement environmental practices in organizations (Madsen & Ulhoi, 2001; Maheshwari et al., 2022). Employees need to be made aware of the different environmental programs in their organizations. They should be further encouraged to practice open innovation in their organizations, which will also enrich their knowledge of how GHRM practices could enhance organizational sustainability performance (Böckel et al., 2021). Environmental training, also known as green training, "provides employees with the needed knowledge about the environmental policy of a company, its practices and necessary attitudes" (Jabbour et al., 2010, p. 1057). Training employees about GHRM practices makes them aware of the organization's procedures and policies, helps to change their attitudes, and enhances their environmental awareness (Rana et al., 2021; Sakka, Chatterjee, & Chaudhuri, 2021; Sammalisto & Brorson, 2008). Employees should learn how to perform green analysis in their organizations and enhance their skills for supporting green initiatives that prompt organization sustainability (Govindarajulu & Daily, 2004; Nguyen, 2021). Accordingly, it is hypothesized as follows.

H2. Employee training (ET) has a positive impact on organization sustainability (OS) in the context of GHRM practices.

3.2.3 | Performance appraisal (PA)

Performance appraisal (PA) is necessary for providing feedback to employees on the strengths and weaknesses of their performance. This helps to enhance operational competence to improve organization sustainability (Mathis & Jackson, 2011). Green performance appraisal is interpreted as "the appraisal and registration of employees' environmental performance throughout their careers in a company and provides them with feedback about their performance to prevent undesirable attitudes or reinforce exemplary behavior" (Jabbour et al., 2010, p.1057). Empirical research has found that performance appraisal is related to economic sustainability and social responsibility (Zaid et al., 2018) as well as environmental sustainability (Masri & Jaaron, 2017). Accordingly, it is hypothesized as follows.

H3. Performance appraisal (PA) of employees is positively correlated with organization sustainability (OS) in the content of GHRM practices.

3.2.4 | Employee compensation (EC)

Organizations reward their employees' green skills achievements by giving them compensation packages (Jabbour & Santos, 2008) that include bonuses for keeping the workplace clean, using less paper, or for maintaining health and safety standards (Daily & Haung, 2001; Sheshadri, 2011), and so on. This reward system provides impetus to employees to develop their pro-environmental behavior (Sakka, Chaudhuri, & Thrassou, 2021; Sharma et al., 2021; Stahl et al., 2019). It also compensates employees to commit toward maintaining environmental sustainability of the organization (Ren & Jackson, 2019; Sheshadri, 2015). The compensation that employees receive for their profound green engagement can include different monetary and non-monetary incentives, promotion, and career advancement (Zoogah, 2018). Accordingly, it is hypothesized as follows.

H4. Employee compensation (EC) positively influences organization sustainability (OS) in the context of GHRM practices.

3.2.5 | Organizational sustainability (OS)

Organizations have been facing several challenges in ensuring prosperity for all from economic, social, and environmental perspectives. In this context they are working to design business models for developing employment relationships and management practices (George et al., 2016; Sheshadri, 2020). To address these challenges, HRM scholars have put much emphasis on HRM systems, policies, and strategies as important instruments for realizing the sustainability objectives of organizations (Sheshadri, 2019; Stahl et al., 2019). Sustainability of an organization includes economic sustainability and social sustainability (Zaid et al., 2018), as well as environmental sustainability (Masri

& Jaaron, 2017; Vrontis et al., 2022a). Economic sustainability is construed to be an age-old concept, but social sustainability and especially environmental sustainability are relatively new concepts. An organization is perceived to exhibit better performance if it becomes sustainable. Accordingly, it is hypothesized as follows.

H5. Organization sustainability (OS) positively correlates with organization performance (OP) in the context of GHRM practices.

3.2.6 | Moderating effects of TMT support

In the context of transforming the organization activities through GHRM practices, the literature reveals that attention from top management teams (TMT) would help to make such strategic changes (Su et al., 2019; Vrontis et al., 2022c). HRM professionals must interact with TMT to ensure environmentally friendly activities in the organizations will achieve sustainability (Heyden et al., 2017; Vrontis et al., 2022b). To transform GHRM practices, the role of HRM has to expand beyond the involvement of front-line employees and managers to include TMT support. This would help the organization to address sustainability challenges and to manage HR development (Pless et al., 2012), leadership integrity (Pfeffer, 2016), talent (Collings, 2014), and so on. Accordingly, it is hypothesized as follows.

H6a. TMT support has a moderating effect on the relationship between employee recruitment (ER) and organization sustainability (OS) in the context of GHRM practices.

H6b. TMT support has a moderating effect on the relationship between employee training (ET) and organization sustainability (OS) in the context of GHRM practices.

H6c. TMT support has a moderating effect on the relationship between performance appraisal (PA) and organization sustainability (OS) in the context of GHRM practices.

H6d. TMT support has a moderating effect on the relationship between employee compensation (EC) and organization sustainability (OS) in the context of GHRM practices.

With all these inputs, a model is developed conceptually. It is shown in Figure 1.

The framework has conceptualized that GHRM practices, comprising employee recruitment, employee training, performance appraisal, and employee compensation, could impact organizational sustainability supported by the boundary condition TMT support. As seen in the figure above, it is conceptualized that organizational sustainability could also impact organizational performance. The framework has also conceptualized that organization size, organization age, and organization type could control the overall organizational performance.

Earlier studies have suggested that some salient characteristics of organizations are considered to impact performance (Porter & Donthu, 2006). For developing better relationships among the determinants, some control variables have been proposed to characterize organizational performance. Those variables are organization size, organization age, and organization type.

4 | RESEARCH METHODOLOGY

As this complex model need an approach that is perceived to be flexible (Lowry & Gaskin, 2014), the authors preferred to use the partial least squares (PLS) – structural equation modeling (SEM) technique. Moreover, applying PLS-SEM is deemed to be more convenient, as it

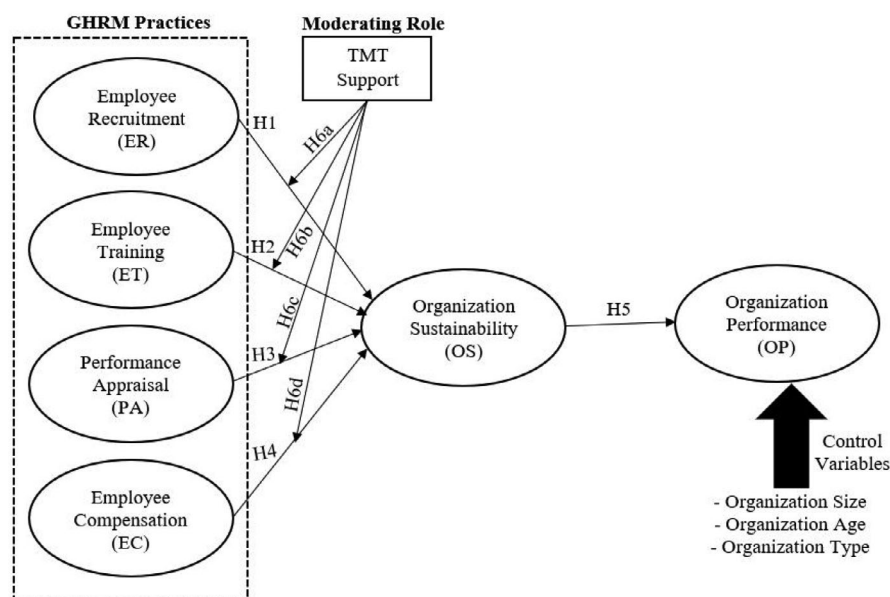


FIGURE 1 Conceptual framework for GHRM practices.

does not impose any sample restriction nor does it require the data to be normally distributed, which is the indispensable condition for the CB-SEM approach (Rigdon et al., 2017; Willaby et al., 2015). This study used PLS 3.2.3 software for the modeling.

4.1 | Measurement instrument

This study aimed to assess the impact of GHRM practices on organization sustainability with the help of correlational design. The scope of this research is confined to the organization level using a cross-sectional approach. To test and validate the conceptual model, a measurement instrument and measurement scale were designed in a questionnaire format. The prepared questionnaire was duly pretested (Carpenter, 2018) by consulting with eight experts for their opinions. Six of the experts came from industry, and each possessed more than 10 years of professional experience in the field of this present study. The remaining two came from academia and had more than 15 years of research experience in the domain. Their inputs helped us to refine the questions, to make them simpler, more understandable, and more readable. After the pretest stage, the refined questions were piloted with 30 respondents, who were selected through the convenience sampling method. They were not included in the main survey. After this pilot test, the questions were corrected to enhance their readability, understandability, and comprehensiveness. In this way, eventually 37 instruments were fine-tuned. The measurement scale utilized in this questionnaire contained six items representing employee recruitment, six items representing employee training, five items representing performance appraisal, six items representing employee compensation, seven items representing organization sustainability, and seven items representing organization performance.

4.2 | Data collection

For targeting the respondents, 39 large organizations in India were chosen at random from a list from the Bombay Stock Exchange. Large organizations were selected because they are supposed to be more sensitive to environmental issues (Guerci et al., 2016), they follow robust HR practices (Tzafrir, 2005), and they are supposed to strictly adhere government rules and regulations (Amran et al., 2012). The top executives of these 39 large organizations were requested through emails to allow their employees to participate in the survey. The authors of the study informed the top executives that the aim of this study was purely academic and that the anonymity and confidentiality of all the participants would be strictly preserved. Most of them were again reminded over telephones and emails. After the initial hiccups, the top executives of 27 large organizations agreed to allow their employees to participate in the survey.

The authors then randomly selected 797 employees of these 27 organizations. They were provided with the response sheet that contained the 37 questions. Each question had five options, as a 5-point Likert scale was used. Each respondent was to put a tick mark

in only one of the options per question. They were also provided with instructions on how to complete the response sheet. They (797 prospective respondents) were given 2 months (December 2019 and January 2020) to respond. Within the scheduled time, 381 responses were obtained.

A non-response bias test was then performed by conducting independent *t* tests and chi-square tests by analyzing the responses of the first and the last 100 respondents to ascertain if the two results were different or not. However, the results highlight that there was no significant difference in these two cases (Armstrong & Overton, 1977). These response sheets were also reviewed, and it was observed that nine were incomplete, because the respondents had put tick marks in more than one option against each question. Therefore, they were not included in the analysis. PLS-SEM analysis was performed with 372 responses against 37 items. The demographic information of these 372 respondents is provided in Table 1.

4.3 | Control variables

Special characteristics of the organizations are required to be checked with the three control variables of size, age, and type. Since only large-size organizations were chosen, considering the effects of the organization's size was deemed to be redundant. Organization age was assessed according to the number of years it has been in operation. As for type, only manufacturing and service organizations were considered. This information is available in Table 1.

5 | DATA ANALYSIS AND RESULTS

5.1 | Measurement properties and discriminant validity test

To identify convergent validity, the loading factors of all the items were assessed. To scrutinize validity, reliability, consistency, and multicollinearity defects, average variance extracted (AVE), composite reliability (CR), Cronbach's alpha (α), and variance inflation factor of each construct were also analyzed. The results show that all were within the allowable range. The results are shown in Table 2.

It was found that the square roots of the AVEs are greater than the corresponding bi-factor correlation coefficients, conforming to Fornell and Larcker's criterion (Fornell & Larcker, 1981). These results confirm that there was discriminant validity. The results are provided in Table 3.

5.2 | Moderator analysis (multigroup analysis)

The authors next used the bootstrapping procedure with consideration of 5000 resamples. The effects of the moderator, TMT support grouped as Strong TMT support and Weak TMT support, impacting on the H1, H2, H3, and H4 have been analyzed through multigroup

analysis (MGA). With this criterion, the effects of the two categories of the moderator on a linkage are considered significant if the p -value difference is <0.05 or >0.95 (Hair Jr. et al., 2016). The entire results are shown in Table 4.

5.3 | Hypotheses testing (structured equation modeling)

For testing the hypotheses, the bootstrapping procedure was undertaken with consideration of 5000 resamples (Hair Jr. et al., 2016).

TABLE 1 Demographic information.

Category	Particulars	N (%)
Gender	Male	296 (79.6)
	Female	76 (20.4)
Rank	Jr. Manager	141 (37.9)
	Mid-level Manager	192 (51.6)
	Sr. Manager	39 (10.5)
Age (years)	30–40	138 (37.1)
	40–50	194 (52.2)
	>50	40 (10.7)
Age of the organization (years)	5–10	12 (44.4)
	6–16	11 (40.7)
	>16	4 (14.9)
Age of the organization	Manufacturing	18 (66.7)
	Service	9 (33.3)

TABLE 2 Measurement properties.

Constructs	Items	LFs	AVE	CR	α	VIF
ER	ER1 to ER6	0.92, 0.88, 0.85, 0.86, 0.77, 0.94	0.76	0.81	.83	3.9
ET	ET1 to ET6	0.88, 0.83, 0.91, 0.86, 0.97, 0.95	0.81	0.84	.89	4.6
PA	PA1 to PA5	0.94, 0.86, 0.96, 0.89, 0.95	0.81	0.85	.88	3.7
EC	EC1 to EC6	0.83, 0.84, 0.93, 0.90, 0.88, 0.96	0.79	0.82	.86	3.6
OS	OS1 to OS7	0.86, 0.85, 0.89, 0.88, 0.96, 0.90, 0.95	0.80	0.84	.87	4.7
OP	OP1 to OP7	0.97, 0.95, 0.89, 0.96, 0.80, 0.86, 0.92	0.82	0.87	.91	4.2

TABLE 3 Discriminant validity test (Fornell and Larcker criteria).

Constructs	ER	ET	PA	EC	OS	OP	AVE
ER	0.87						0.76
ET	0.24	0.90					0.81
PA	0.17*	0.28	0.90				0.81
EC	0.29***	0.32	0.33*	0.89			0.79
OS	0.31	0.36**	0.22	0.34	0.89		0.80
OP	0.19	0.30	0.27	0.16*	0.19***	0.90	0.82

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Using separation distance 7, the cross-validated redundancy was ascertained by computing the Q^2 value, which emerged as 0.061, which is positive. This confirms that the model has appropriate predictive relevance (Mishra et al., 2018).

Also, for ascertaining the model fit, the standardized root mean square residual (SRMR) was the standard index (Henseler et al., 2014). The values of SRMR emerged as 0.064 for PLS and 0.032 for PLSc. Both these assessed values are less than the highest permissible value of 0.08 (Hu & Bentler, 1999). Hence, the model is in order. With structural equation modeling (SEM), the path coefficients, p -values, and the coefficients of determination (R^2 values) could be assessed, which are provided in Table 5.

The validated model is shown in Figure 2.

5.4 | Common method bias (CMB)

Since the results of this study are based on survey data, the possibility of having CMB cannot be fully avoided. To eliminate the risk of CMB, some procedural measures were initially taken. With feedback from the pretest and the pilot test, the wordings of the questions were made simpler so that the potential respondents would not have any problem understanding them. Also, during the survey, all the potential respondents were assured that their anonymity and confidentiality would be strictly preserved so that they could respond in an unbiased way.

To further ascertain the severity of CMB, Harman's Single Factor Test (SFT) was conducted, and the first factor was found to be 21.06%. Also, the results show that the estimated value (21.06%)

is less than the highest cut-off value of 50%, as recommended by Podsakoff et al. (2003). To supplement the Harman's Single Factor Test (SFT), the marker correlation test was also performed (Lindell & Whitney, 2001). Both statistical tests did not reveal any evidence of there being CMB, hence it is construed that CMB did not pose any major threat in this study.

5.5 | Results

This study formulated nine hypotheses out of which four hypotheses are on the moderating effects of TMT support on H1 (employee recruitment – ER), H2 (employee training – ET), H3 (performance appraisal – PA), and H4 (employee compensation – EC). It was found that the impact of EC on OS (H4) is the highest, with the path coefficient as 0.46 and the significance level at $p < .001$ (***). The impact of OS on OP is found to be significant since that path coefficient is 0.48 and has a level of significance level of $p < .001$ (***). The effects of the moderator TMT support on H1, H2, H3, and H4 are all significant: the respective path coefficients are 0.21, 0.32, 0.33, and 0.41 and the levels of significance are $p < .05$ (*), $p < .01$ (**), $p < .05$ (*), and $p < .05$ (*).

TABLE 4 Multi group analysis (MGA).

Linkages	Hypotheses	<i>p</i> -value difference	Remarks
(ER→OS)×TMT support	H6a	.03	Significant
(ET→OS)×TMT support	H6b	.01	Significant
(PA→OS)×TMT support	H6c	.01	Significant
(EC→OS)×TMT support	H6d	.02	Significant

Linkages	Hypotheses	Path coefficients/ <i>R</i> ²	<i>p</i> -values	Remarks
Effects on OS		<i>R</i> ² = .42		
ER→OS	H1	.21	$p < .05$ (*)	Supported
ET→OS	H2	.40	$p < .001$ (***)	Supported
PA→OS	H3	.29	$p < .01$ (**)	Supported
EC→OS	H4	.46	$p < .001$ (***)	Supported
OS→OP	H5	.48	$p < .001$ (***)	Supported
(ER→OS)×TMT support	H6a	.21	$p < .05$ (*)	Supported
(ET→OS)×TMT support	H6b	.32	$p < .01$ (**)	Supported
(PA→OS)×TMT support	H6c	.33	$p < .05$ (*)	Supported
(EC→OS)×TMT support	H6d	.41	$p < .05$ (*)	Supported
Effects on OP		<i>R</i> ² = .68		

The impact of the moderator (TMT support) on H4 is the highest (path coefficient = 0.41; $p < .05$). Regarding the coefficient of determination (*R*²), ER, ET, PA, and EC could explain OS as much as 42%, whereas OS could determine OP to the tune of 68%, which is the explanative power of the model. The coefficient of determination is conceptualized as the level of variance of the dependent variable, which is predicted, from the independent variable in the given dataset.

6 | DISCUSSION

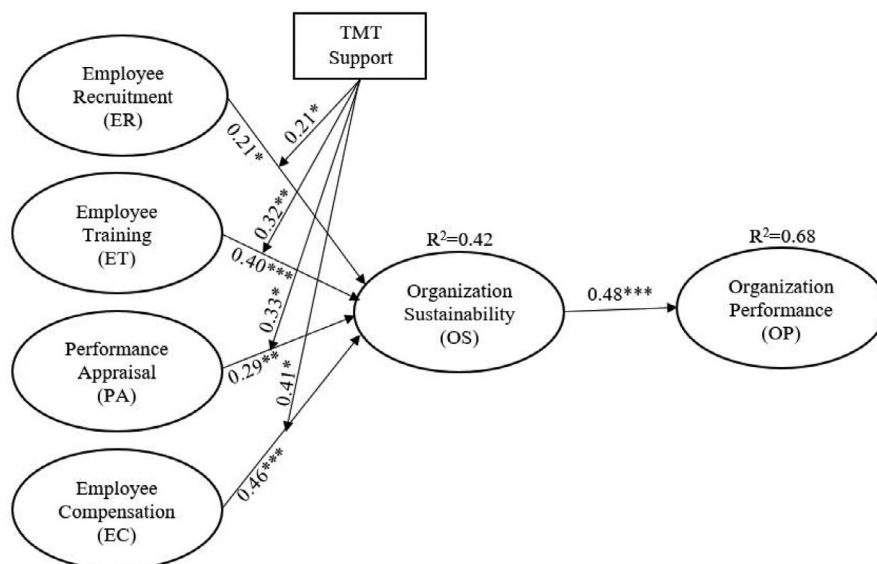
This study hypothesized that employee recruitment in the context of GHRM positively impacts organization sustainability (H1). This received support in another study (Masri & Jaaron, 2017) that noted that employee recruitment in manufacturing organizations in the Palestinian context had a positive impact on sustainability triggering organization performance. This idea is in consonance with a study by Ahmad (2015) that also suggested that recruiting candidates with pro-environmental mindsets could lead organizations to become more sustainable.

This study also hypothesized that employee training positively impacts organization sustainability (H2), which was also supported by a study by Zaid et al. (2018) which found that green training for employees has a positive influence on sustainable performance. Through such training, employees could develop their acumen for cultivating their habit of reducing their use of paper and other natural resources, which could save the environment.

It was also found that performance assessment impacts sustainability (H3), which contradicts the results obtained in Yong et al.'s (2019) study that highlighted that, in the context of large manufacturing industries in Malaysia, performance assessment does not have any impact on sustainability. They concluded that those organizations are more concerned about controlling costs to stay competitive in their dynamic market, and the process of performance assessment for

TABLE 5 Path coefficients, *p*-values, *R*² values, and remarks.

FIGURE 2 The validated model (SEM).



employees of Malaysian large organizations is comparatively costly. Hence, the H3 in the Malaysian context was not supported, whereas it received support from Zaid et al. (2018). The findings for hypothesis H4, which states that employee compensation positively impacts organization sustainability, also contradicted Yong et al.'s (2019) study. This is presumably because of cultural difference between Malaysia and India (where the current study was conducted).

The moderator TMT support has a significant impact on the four linkages which impact organization sustainability (H6a to H6d). This is in consonance with other studies (Heyden et al., 2017; Su et al., 2019). Hypothesis H5, which states that organization sustainability correlates to organization performance, has received support from Ehnert (2009). Moreover, to assess the effects of the control variables on OP, a Sobel test (Baron & Kenny, 1986) was conducted. The results show that the effects of age and type have an insignificant impact on organizational performance. It should be reiterated that this study only considered large companies, so the control variable of organization size would be redundant under such circumstances.

Now, the effects of Strong TMT support and Weak TMT support on the linkages H1, H2, H3, and H4 will be discussed by graphical representations (Figure 3a–d). In all of the figures, Strong TMT, which is represented by a solid line, is shown to have a greater effect on all of the linkages than Weak TMT, which is represented by a dotted line. This is because in all four graphs the continuous lines have greater gradients, i.e., they are more inclined to the horizontal axis, compared to the gradients of the dotted lines. It is important to note that the gradient of a straight line is interpreted as the trigonometrical tangent of the angle, which the straight line makes with the positive direction of the horizontal axis. The four graphs are shown below.

6.1 | Theoretical contribution

This study has investigated how, in India, GHRM practices like employee recruitment, employee training, performance appraisal, and

employee compensation could impact organization sustainability for large organizations and how the moderator TMT support influences organization sustainability. The authors found no other study in respect of environmental sustainability to uphold green culture for organizations in developing economies like India. This is a special theoretical contribution of this study.

The results demonstrate that organizations have been using sustainability-related innovation practices to enhance their growth trajectory and their overall performance (Böckel et al., 2021; Demirel & Kesidou, 2019; Renouard & Ezvan, 2018). With sustainable innovation, organizations add value to the development of their GHRM practices and contribute to society (Camilleri, 2017). This study has found that innovative practices could improve organizations' social and innovative performance and can ensure that they achieve their sustainable goals (Bocken et al., 2018). It is also demonstrated that the open innovation paradigm presents an emerging innovation approach to address the challenges associated with environmental and social sustainability (Bogers et al., 2020). This study has also found that organizations' open innovation practices could add value to their GHRM practices in order to achieve sustainable goals (Basile et al., 2022; Bocken et al., 2018). The open innovation approach to developing GHRM practices has been nurtured in this study to extend the applications of resource-based view (Barney, 1991), which is deemed to be a unique theoretical contribution to the open innovation and sustainability-related literature.

It is shown that organizations that effectively utilize their resources may ensure green sustainability to trigger better performance. Again, to see this effect, the study borrowed inputs from RBV to posit that an organization can succeed by improving its sustainability through adopting GHRM practices with the help of its VRIN resources. The VRIN resource that was focused on was human resources, because it possesses the qualities that exhibit pro-environmental behavior, such as improving employees' skillsets through proper training and by offering them incentives.

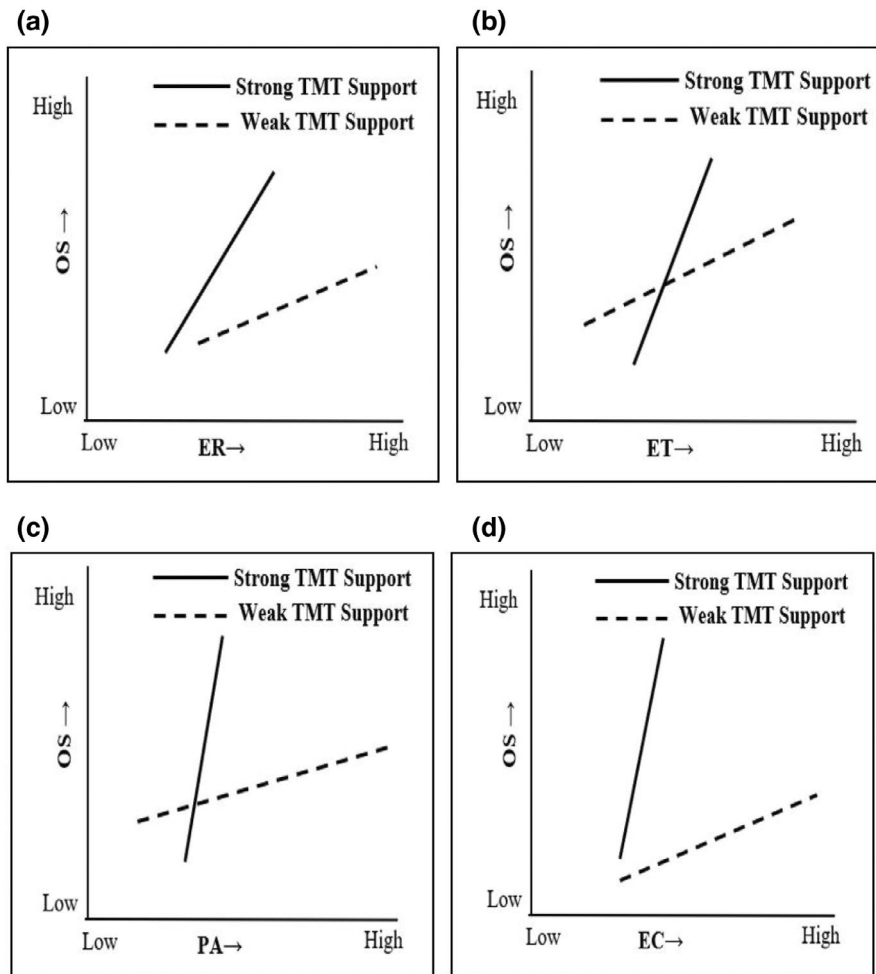


FIGURE 3 (a) Effects of moderator on H1. (b) Effects of moderator on H2. (c) Effects of moderator on H3. (d) Effects of moderator on H4.

This study applied institutional theory, which posits how various schemes, routines, and technology may be diffused and implemented successfully in an organization. This study has been able to extract the kernel of institutional theory which states that in order to implement new technology, organizations must enhance employees' assimilation abilities. This can be ensured by recruiting talent, training, assessing performance, and giving incentives. The use of institutional theory in this respect is a special theoretical contribution of this study.

In a study of Masri and Jaaron (2017), they observed that, in the Palestinian context, employee recruitment had positive impact on environmental sustainability. These inputs have been used in this study in the Indian context. This is also a claimed theoretical contribution of this study. It implies that recruitment of candidates that have environmental awareness will help the organization to fulfill their environmental commitment.

This study is mainly concerned with the adoption of GHRM practices in organizations. In this context, a standard adoption model could have been used to interpret this. Instead of doing that, the authors used some better-suited determinants which are environmentally oriented. This has resulted in a model with high explanative power. This may also be construed to be a unique theoretical contribution to this study.

6.2 | Practical implications

This study has provided several practical implications for practitioners and policymakers. The theoretical model in this study provides guidelines to large organizations regarding the contributions of adopting GHRM practices. This study demonstrates that large organizations play a critical role in mitigating environmental issues. In this context, this model will help large organizations to build green-oriented human resources for adopting GHRM strategies to attain business sustainability.

Organizations can improve their GHRM practices by adopting open innovation practices. This implies that executives and managers of organizations must provide various opportunities for employees to engage in open innovation practices, where they could exchange knowledge with stakeholders of other organizations thus enriching their competencies, creativity, and skillsets, as well as improving their organizations' GHRM practices. The results of this study also indicate that large Indian organizations which adopt GHRM practices, like employee recruitment, training, appraisal, and compensation, have been able to improve their sustainability.

The study has shown that employee recruitment in the context of GHRM could positively impact organization sustainability (H1). This implies that the managers and executives have the bounden

duties to recruit such employees who possess pro-environmental behavior with considerable environmental awareness. Also, appropriate training for employees on GHRM practices would significantly impact organization sustainability (H2). This implies that the organization's authorities need to impart proper training to the employees to increase their environmental awareness, to be apprised of their organization's environmental commitment, and to become conversant about environmental compliance rules and regulations so that their efforts could make the organization environmentally friendlier, thus impacting on organization sustainability. Continuous evaluation of employees' adherence to GHRM practices (H3) should be done. It will help the employees to address their weak areas. An appropriate reward (H4) is expected to motivate employees to be more environmentally cautious, which would help the organizations to become eco-friendly.

This study has also shown that TMT support plays a critical role in effectively implementing GHRM in organizations. In this context, the officials of the organizations need to always interact with the TMT to effectively implement GHRM. Also, this study has demonstrated that the impact of the moderator TMT support on the linkage ER→OS is minimum ($\beta=.21^*$). This implies that the top management team needs to focus more attention on the recruitment process so that they recruit skilled and environmentally sensitive employees to ensure organizational sustainability. The study also highlights that the impact of employee recruitment on organizational sustainability is minimum. Therefore, the leaders and the managers of the organizations should emphasize recruiting employees who are environmentally conscious (Asadi et al., 2017) and who possess a pro-environment mindset (Renwick et al., 2013). The leaders and the managers of the organizations should then prioritize GHRM practices to attract more environmentally conscious candidates (Wehrmeyer, 1996).

6.3 | Limitation of this study and future scope

This study developed a model which can help organizations implement GHRM practices to achieve sustainable growth to improve performance. This study was able to achieve high explanative power, but it is still not free from all limitations. For example, this study depends on cross-sectional data, which can yield defective results. Future researchers may conduct a longitudinal study to eliminate this error. A survey was conducted with inputs from respondents in India, and the results obtained may not be applicable in other countries. Therefore, it lacks generalizability. Future researchers may conduct a study covering input from respondents of different countries. A multi-country study may portray a more generic finding. The explanative power of the model is 68%. Inclusions of other boundary conditions may enhance the explanative power. Future researchers may explore its feasibility. The study was conducted with 372 respondents, which does not represent the entire Indian society. Future researchers may nurture this point. Finally, this study has demonstrated that TMT support plays a critical moderating role

in facilitating the impacts of GHRM practices on organizational sustainability, which eventually improves organizational performance. But the present study did not analyze the effects of TMT support on organizational sustainability as a principal construct, nor did it particularly suggest how TMT support could improve organizational sustainability. This may be considered a limitation, and we suggest that future researchers emphasize this issue.

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CONFLICT OF INTEREST STATEMENT

The authors declare that there is no conflict of interest to disclose here in this paper. The authors of this manuscript also certify that they have no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript.

PEER REVIEW

The peer review history for this article is available at <https://www.webofscience.com/api/gateway/wos/peer-review/10.1111/beer.12569>.

DATA AVAILABILITY STATEMENT

Research data are not shared.

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