Green HRM, Environmental Awareness and Green Behaviors: The Moderating Role of Servant Leadership

Authors

Mahlagha Darvishmotevali and Levent Altinay

Abstract

Given the numerous environmental issues facing the hotel industry, there is growing pressure to respond to them by implementing sustainable strategies such as green human resource management (HRM) practices. Thus, there is a need to examine how green HRM enhances environmental performance. Accordingly, this study explores the causal relationship between green HRM, employees' pro-environmental performance (P-EP), environmental awareness, and servant leadership. The data were collected from employees working in hotels in Almaty, Kazakhstan. Smart PLS was utilized to conduct validity and reliability tests and to design structural equation modeling. The findings show that environmental awareness mediates the impacts of green HRM on proactive P-EP, but does not support task-related P-EP. Also, servant leadership does not moderate the relationship between green HRM and task-related. Drawing on social exchange, social cognitive, and social learning theory, this study provides theoretical contributions, practical implications, and useful recommendations for managers and scholars in the hospitality industry.

Keywords: green HRM, pro-environmental behaviors, environmental awareness, servant leadership.

1. Introduction

Almost a century and a half of global industrial development has created significant environmental problems in many countries (Watson & Tidd, 2018). For example, activities conducted within the tourism industry lead to environmental problems such as climate change; loss of natural resources; the emission of various environmental pollutants that impact the air and water, as well as the emission of sound and light pollution; and even species extinction. These industrial processes and their destructive effects threaten the global environment, as well as economic and social well-being. This necessitates public attention to environmental or green issues, including energy conservation, recycling, and renewable energy sources such as solar, wind, and geothermal energy (Ecer, Pamucar, Mardani, & Alrasheedi, 2021). In particular, the hazards of environmental issues have led several industries to show a tendency to focus on green performance and to begin educating and training their employees in green performance in recent years. Among these industries, the hospitality industry has made a positive impact on the preservation of the environment through reduced consumption of energy and water, better use of durable and consumable goods, and reduced generation of solid and hazardous waste (Gürlek & Tuna, 2018; Kim, Lee, & Fairhurst, 2017; Pham, Tučková, & Jabbour, 2019).

Tourism and hospitality researchers have studied various green topics, including green management, green HRM, green policies and practices, green innovation, green work attitudes and green outcomes (e.g., Cabral & Jabbour, 2020; Gürlek & Koseoglu, 2021; Jaaron & Backhouse, 2019; Mzembe, Melissen, & Novakovic, 2019; Peng, Lee, & Lu, 2020). Among these studies, the role of green HRM practices in environmental outcomes has been especially prominent, several researchers focusing on this area (e.g., Pham, Hoang, & Phan, 2019; Yong, Yusliza, & Fawehinmi, 2019; Zhang, Luo, Zhang, & Zhao, 2019). Green HRM is one of the most important aspects of environmental human resource systems. Green HRM is based on an environmentally friendly perspective and aims to promote a green organizational culture to encourage employees to conduct their work in the most environmentally friendly way possible. In addition, green management focuses on educating the workforce about environmental goals and creating competitive advantage based on environmental considerations. Referring to existing green HRM policies and principles, such management entails fostering commitment among employees to the environment and to teamwork in this area, and to recruiting, rewarding, encouraging personal growth of, and training employees in line with the organization's environmental goals (Kim et al., 2017; Pham, Hoang, & Phan, 2019).

55 However, although the link between green HRM practices and P-EP is well established,
56 Chaudhary (2020) claimed that any study of how green HRM will shape green performance is
57 incomplete without a consideration of its process. Indeed, recent studies have highlighted the
58 lack of research on the process by which green HRM leads to pro-environmental behaviors
59 (Pham, Thanh, Tučková, & Thuy, 2020). Pham, et al. (2019) emphasized the lack of in-depth
60 study on the relationships between green HRM practices and existing factors, such as green
61 employee performance, green human capital, the roles of intermediaries, and interactions among
62 green HRM practices in organizational performance. Chaudhary (2020) proposed that alternative
63 mediating mechanisms should be examined to further understand the dynamics of the
64 relationships between green HRM and P-EP. To address this gap, this research tests the process
65 of the mediating role of environmental awareness in the causal relationship between green HRM
66 and task-related and proactive P-EP.

67 In addition, as highlighted by Pham et al. (2019), there is a need for further research on the role
68 of interactions between green HRM practices and organizational green outcomes, as well as on
69 how green HRM affects employees' awareness, knowledge, and motivation to engage in green
70 activities in the organization. The literature shows that leadership contributes to optimal
71 organizational outcomes by influencing organizational attitudes and performance (Khuwaja,
72 Ahmed, Abid, Adeel, & Wanasika, 2020; Saleem, Zhang, Gopinath, & Adeel, 2020). In
73 particular, servant leadership has been identified as one of the influential factors moderating the
74 relationships between green HRM and green organizational performance (Ying et al., 2020). A
75 feature of servant leadership traits is that they are self-sacrificing and are more likely to instill a
76 sense of community interest among employees. Servant leadership pays considerable attention to
77 community service (Ying, Faraz, Ahmed, & Raza, 2020), while green HRM and P-EP are
78 closely aligned with protecting the environment and community by considering and minimizing
79 environmental concerns. Therefore, it is essential to examine how servant leadership moderates
80 these relationships (Ying et al., 2020).

81 Although previous studies have paid attention to the behavioral and attitudinal outcomes of
82 servant leadership, none of them has examined the P-EP-environmental performance (Gui,
83 Zhang, Ouyang, & Zou, 2020). Accordingly, to fill this gap, the present study investigates the
84 interaction effect of green HRM and servant leadership on employees' task-related and proactive
85 P-EP in the hospitality industry. From the authors' perspective, the role of servant leadership is
86 necessary to augment the effects of green HRM on employees' P-EP. Indeed, some researchers
87 have argued that psychological empowerment could be a fundamental mechanism for describing

88   the role of servant leadership in employees' outcomes (Newman, Schwarz, Cooper, & Sendjaya,
89   2017).

90   Theoretically, the results of this study will add to the HRM and green performance literature by
91   providing insights regarding the integration of human resources, green HRM practices, and
92   environmental management issues, which have been recognized as key factors in the greening of
93   organizations. Furthermore, this study adopts social exchange, social cognitive, and social
94   learning theories to support the hypotheses' development in evaluating the direct, mediating, and
95   moderating mechanisms by which green HRM affects employees' environmental performance.
96   In addition, the results of this study will provide new information and evidence related to green
97   HRM and its outcomes in hotels in emerging economies, which have been less studied to date,
98   and are thus less understood (Pham et al., 2019). Understanding the Kazakhstan context is
99   expected to add substantial evidence to the multidisciplinary field of green HRM and P-EP in the
100   hospitality industry (Olya, Altinay, Farmaki, Kenebayeva, & Gursoy, 2020).

101   In practice, this study aims to show how green HRM policies can be effectively implemented in
102   organizations to achieve a green organizational culture and encourage employees to adopt green
103   behaviors. In terms of managerial implications, this study shows how organizations may promote
104   green behaviors among employees by endorsing environment management programs, developing
105   green HRM practices, and introducing various processes related to in green HRM.

2. Literature Review and Hypotheses Development

2.1 Green human resource management

HRM is a strategic approach to effectively managing employees in an organization so that they help their business gain competitive advantages. This is structured and designed to maximize employee performance in meeting the strategic goals of employers. Green HRM can be defined as HRM practices and policies that sustain a business and, more importantly, aim to prevent damage arising from anti-environmental activities in organizations (Yusoff, Nejati, Kee, & Amran, 2018). Green HRM practices and principles can be considered as a set of approaches, policies, methods, and strategies that motivate a company's employees to perform green behavior and create an environmentally compatible work environment that is resource-efficient and socially responsible (Ren, Tang, & Jackson, 2018). Green HRM focuses on training employees in green practices and enhancing employees' environmental awareness, environmental efficiency, environmental involvement, and environmental performance (Pham et al., 2019). The green HRM method is considered as one of the best ways to help organizations implement environmentally friendly programs, especially by training employees to have the ability to assess environmental problems in the organization (Renwick, Redman, & Maguire, 2013). Green HRM is a key constructs in this study because it is still a relatively new approach that involves functions such as recruitment and selection, rewards and motivation, training and development, and evaluations that help create an environmentally friendly workplace (Yong, Yusliza, Ramayah, & Fawehinmi, 2019). More importantly, green HRM is under-researched (Pham et al., 2020). Some of the underlying strategies of green HRM are investment in employees who are worried about environmental problems, making employees aware of organizational environmental processes and empowering them to participate in those processes, and creating an environmentally friendly organizational culture (Kim, Kim, Choi, & Phetvaroon, 2019; Renwick et al., 2013).

2.2 Pro-environmental behavior

Pro-environmental behaviors, which are those behaviors that consciously seek to minimize the negative impact of an individual's actions on the natural and constructed world, can be an effective way to achieve effective workplace sustainability programs (Kollmuss & Agyeman, 2002). This refers to employees' activities aimed at reducing the negative consequences of people's actions, such as by recycling, reducing waste, saving water, and reducing energy consumption (Stern, 2000). Task-related P-EP and proactive P-EP are grouped under the pro-environmental behaviors category (Bissing-Olson, Iyer, Fielding, & Zacher, 2013; Zhang, Luo,

Zhang, & Zhao, 2019). Task-related P-EP refers to behaviors that are formally required by the organization and defined in the context of employee duties (Norton, Zacher, & Ashkanasy, 2014). Task-related P-EPs are employees' performance of their essential duties in an environmentally friendly manner. Therefore, special attention is paid to the number of employees who perform their main organizational tasks in ways that help to protect natural resources and the environment (Bissing-Olson et al., 2013). The concept of proactive P-EP refers to the degree of employee initiative in green behaviors that go beyond those employees' job responsibilities. This type of behavior does not stem from job conditions or job descriptions but arises from personal involvement in working with unpredictable issues (Bissing-Olson et al., 2013). Proactive P-EP, which is a relatively under-researched area (Ahmed, Guo, Qureshi, Raza, Khan, & Salam, 2021; Tian, Zhang, & Li, 2020), is a key construct in this study because it involves a dependent and proactive approach to work, such as by providing environmental recommendations, making necessary changes, identifying environmental problems, and finding solutions to those problems.

2.3 Green HRM and P-EP

Employees' green behaviors can be promoted by the organization to minimize negative impacts and maximize positive impacts on the environment (Norton, Zacher, Parker, & Ashkanasy, 2017). Employees can be environmentally friendly while performing their assigned tasks. In addition, they can make broader and "greener" changes to their workplace policies that are supported by organization (Ramus & Steger, 2000).

In this regard, social exchange theory (SET) (Emerson, 1976) provides a useful perspective on the relationship between green HRM and P-EP. Researchers use SET to clarify and explain the application of HRM policies and procedures to employee interactions. According to SET, if employees know the benefits and results of using green practices, they are more likely to volunteer to engage in the company's environmental plans and activities (Paillé & Meija-Morelos, 2019; Pham, Tučková, & Jabbour, 2019; Pham, Thanh, Tučková, & Thuy, 2020). Scholars have argued that green HRM can be implemented through the realization of green practices, that it has a beneficial effect on employees' environmental behavior, and that it ultimately meets organizational environmental goals (Kim, Kim, Choi, & Phetvaroon, 2019; Zhang, Luo, Zhang, & Zhao, 2019; Tang, Chen, Jiang, Paillé, & Jia, 2018).

Some studies have demonstrated that green HRM 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. Although many environmental management researchers have examined environmental management practices for green behaviors and waste minimization in the hotel sector, to the best of our knowledge no research has focused on the role of green HRM in two main types of P-EP among hotel employees. Researchers have argued that task-related and proactive P-EBs, as two representatives of green behaviors, are important indicators in green HRM studies for examining the implications of green HRM (Chaudhary, 2020; Tian, Zhang, & Li, 2020; Zhang, Luo, Zhang, & Zhao, 2019).

Green HRM practices are expected to directly impact employees' task-related P-EB because, first, green behaviors comprise part of the company's performance policy and, second, employees are formally appreciated and rewarded for green behaviors, which makes them typical in the workplace. However, proactive P-EP may not be directly affected by green HRM practices because these behaviors are not formally defined and recognized in the organization and are not part of the organization's routine performance. Rather, they go beyond defined organizational frameworks and can be influenced by employees' knowledge of the organization's green culture, their green training in the organization, their personal desire to enact green behaviors, and their level of environmental awareness and connectedness to the environment (Chaudhary, 2020; Dumont, Shen, & Deng, 2017).

Along these lines, we suggest that green HRM principles improve employees' green behaviors in the workplace and lead to task-related and proactive P-EP; therefore, we propose the following hypotheses:

H1a: Green HRM positively relates to task-related P-EP.

H1b: Green HRM positively relates to proactive P-EP.

2.4 Environmental awareness

Environmental awareness is a multidimensional concept that is known to influence an individual's information, knowledge, attitudes, tendency, behaviors, intentions, attempts, and actions (Wan, Chan, & Huang, 2017). It is related to the psychological factors that determine people's propensity toward pro-environmental activities, attitudes, and behaviors (Zhang, Zhang, Zhang, & Cheng, 2014). An ecologically mindful person or pro-environmentalist is someone who engages in a wide variety of P-EBs and activities and has certain values and attitudes (Yeh, Ma, & Huan, 2016). Higher awareness of the environment and related issues leads to a better understanding of the importance of environmental protection for human well-being. Environmental awareness concentrates on the "4 R's": reduce, reuse, recycle, and rethink

226 (Gabarda-Mallorquí, Fraguell, & Ribas, 2018). It refers to the understanding that the
227 environment is fragile and that it is important to maintain the environment. Promoting
228 environmental awareness requires a deep understanding of environmental issues, which is an
229 effective way to improve environmental behaviors and green performance. Environmental
230 awareness is a key construct in this study because the core nature of sustainability and
231 environmental awareness addresses the issue of HRM as a strategic tool both for raising
232 awareness and for greening the organization and society at large (Benevene & Buonomo, 2020).

233 **2.5 Environmental awareness, green HRM and P-EP**

234 Social cognitive theory (SCT) holds that parts of an individual's knowledge acquisition can be
235 directly related to others' observations of social interactions, experiences, education, and the
236 influence of external media (Bandura, 2001). External factors impact on the capacity of people to
237 intentionally choose, execute, and manage their own actions to fulfill expected outcomes. From
238 the socio-cognitive perspective, people not only react differently to external factors, but they are
239 also agile and able to adjust themselves (Bandura, 2001). When employees have a better
240 understanding of their environment, of its importance for the survival of all creatures in the
241 world, and, most importantly, of their significant role in protecting it, then they can be more
242 positively involved with environmental issues.

243 According to SCT, green HRM affects employees' functioning regarding the environment not
244 directly but by enhancing their environmental awareness. It is supposed that green HRM is the
245 process by which all staff are informed and encouraged to improve their environmental
246 proficiencies so that they can facilitate the achievement of organizational targets more
247 effectively. An environmental awareness-based training program enhances employee skills how
248 to protect their environment and increases their emotional involvement in improving the
249 company's environmental performance (Daily, Bishop, & Massoud, 2012; Fernández, Junquera,
250 & Ordiz, 2003). Roscoe, Subramanian, Jabbour, and Chong (2019) argued that hiring employees
251 who have environmental consciousness, and then consistently and effectively training those
252 employees, will promote environmental awareness in the company's various operations. These
253 activities and programs ensure that environmental consciousness is embedded in employees'
254 behaviors, practices, and habits. They reinforce employees' attempts to perform environmentally
255 responsible tasks that improve their company's environmental performance (Roscoe et al.,
256 2019).

257 P-EB is a conscious action taken by employees to reduce the negative impact of human activities
258 on the environment or to improve the quality of the environment. It has been displayed that if

employees are well knowledgeable of environmental issues and problems, they behave in environmentally friendly manners. Green HRM focuses on training employees and increasing employees' knowledge of and commitment to issues of sustainability (Dumont et al., 2017; Pham et al., 2019). The main purpose of green HRM is to make employees aware of the complexities of environmental management, particularly what actions are needed, how environmental management works, and how it helps the environment (Ahmad, 2015). Kim et al. (2019) claimed that human resource managers should provide green systems and training programs related to environmental protection to their employees, which would help employees not only to understand the environmental policies but also to become aware of the importance of environmental protection, which would in turn activate them to show P-EB.

Chan, Hon, Chan, and Okumus (2014) argued that environmental awareness is so important that its absence may lead to the avoidance of task-related P-EPs. When work-related environmental knowledge is available and employees are aware of environmental issues, environmentally friendly behavior becomes common among employees and part of their routine tasks, which can even lead to environmental initiatives and proactive P-EP in the workplace.

However, regardless of the particular mechanism for enhancing P-EP, it seems like there is not enough impractical research has been done to link green HRM to employees' P-EP via environmental awareness (Zhang et al., 2019). Thus, further studies should be conducted to understand the mechanisms underlying green HRM and task-related and proactive P-EP, such as environmental awareness. In addition, these aspects should be studied in various organizational contexts, such as the hospitality industry.

Accordingly, we suggest that implementing green HRM in the organization leads to employees' environmental awareness and then directly to their task-related and proactive P-EP in the organization. Therefore, we propose the following hypotheses:

H2a: Environmental awareness mediates the impact of green HRM on task-related P-EP.

H2b: Environmental awareness mediates the impact of green HRM on proactive P-EP.

2.6 Servant leadership

Servant leadership focuses on serving individuals instead of the individuals working to serve the leader, and a servant leader is someone whose aim is to serve others and ensure that the needs of others are met (van Dierendonck, 2011). According to the philosophy of servant leadership, a servant leader portrays an altruistic personality in favor of the followers and assists them grow and learn by providing opportunities to experience and improve their material and spiritual condition (Eva, Robin, Sendjaya, van Dierendonck, & Liden, 2019). One of the important

characteristics of servant leaders that distinguish them from other type of leaders is caring for and paying attention to the community. Given their holistic view of the organization, the environment, and society, service leaders are active in providing support, direction, and resources to followers. Stewardship is one of the main features of servant leaders, according to which such leaders present themselves as role models for the performance of social responsibilities. In the field of green performance, servant leaders enhance their followers' positive understanding of pro-environmental behaviors by their role-modeling of environmental values (Ying, Faraz, Ahmed, & Raza, 2020). A servant leader considers it his/her moral responsibility to protect the interests of all stakeholders, including staff and clients, to create value for the community, and to pay attention to community service. Servant leaders act selflessly and strive to broaden their subordinates' sense of care for the community (Eva et al., 2019). Servant leadership is one of the main constructs of this study due to its distinctiveness and ability to explain different outcomes better than other forms of leadership can (Hoch, Bommer, Dulebohn, & Wu, 2018; Ying, Faraz, Ahmed, & Raza, 2020).

2.7 Servant leadership, green HRM, P-EP, and environmental awareness

Leadership is the art of motivating and persuading a group of people to achieve a common goal. Leadership derives from social influence, rather than from strict hierarchy or seniority. It is one of the most important topics in organizational contexts and has been studied in relation to several employee performance outcomes (Hassi, 2019; Swanson, Kim, Lee, Yang, & Lee, 2020). Servant leadership is one of the most effective leadership styles and has been considered by many researchers. Numerous empirical studies in the area of hospitality have examined the positive impacts of servant leadership on followers' attitudinal and behavioral outcomes, such as psychological empowerment (Yang, Gu, & Liu, 2019), organizational commitment (Lapointe & Vandenberghe, 2018), work engagement (Bao, Li, & Zhao, 2018), job satisfaction (Farrington & Lillah, 2019), service quality performance (Qiu, Dooley, & Xie, 2020), organizational citizenship behavior (Elche, Ruiz-Palomino, & Linuesa-Langreo, 2020), proactive customer service performance (Ye, Lyu, &He, 2019), and employee creativity (Yang, Gu, & Liu, 2019). According to social learning theory (SLT), servant leaders help followers to develop their full personal capacities, they promote their followers' service-oriented behaviors in the organization by empowering them, and, in a role-modeling process, they provide opportunities for their followers to examine and imitate the leader's behaviors (Liden, Wayne, Liao, & Meuser, 2014). The use of a reward and punishment system by servant leaders to reinforce specific behaviors in

324 the organization can encourage employees to pursue organizational roles and actions in order to
325 implement organizational goals (Saleem, Zhang, Gopinath, & Adeel, 2020).

326 Although some researchers have worked on the issue of environmentally specific servant
327 leadership (Luu, 2020; Tuan, 2020), and despite the importance of green behavior in
328 organizations, there are no studies that show environmental performance as a behavioral
329 consequence of servant leadership in the meta-analytic review study by Gui, Zhang, Ouyang, and
330 Zou (2020). As far as we know, the present research is one of the first to discuss the moderating
331 role of servant leadership in environmental research (Ying, Faraz, Ahmed, & Raza, 2020). By
332 applying SLT, this study proposes that if employees have servant support from their
333 organizations, they will show more P-EBs under green HRM in the organization. In the
334 following, we address the moderating role of servant leadership in the above-given relationships
335 separately.

336 Servant leadership affects employees' behaviors through social learning and social exchange
337 mechanisms (Ling, Lin, & Wu, 2016). In the organization, servant leadership and supportive
338 attitudes toward employees make them more determined in their task-related work. We believe
339 that this behavior among employees applies to various types of performance and is not
340 specifically related to a certain type of performance. Whatever the goals of the organization,
341 servant leaders encourage and direct employees toward those goals. With regard to green
342 performance, if this issue is defined in the organization and is on the agenda, servant leaders
343 persuade and encourage employees to perform their green duties. Although some studies (e.g.,
344 Ling et al., 2016) in the hospitality context have examined the role of servant leaders in
345 employee performance, we argue that the results extend to task-related P-EP. We expect that if
346 green HRM is implemented in interactions with servant leaders in the organization, it will lead to
347 a significant increase in task-related P-EP. To the best of our knowledge, the moderating role of
348 servant leadership in green HRM and task-related P-EP has not been examined to date; however,
349 existing studies (Chaudhary, 2020; Tian, et al., 2020; Zhang, et al., 2019) have provided
350 empirical evidence that enables us to develop a hypothesis based on the interaction effect of
351 green HRM and servant leadership, which can have a double effect on employees' task-related
352 P-EP. Therefore:

353 **H3a:** Servant leadership moderates the impact of green HRM on task-related P-EP.

354 It has been argued that servant leaders prioritize employees' needs and emphasize employees'
355 empowerment and capabilities toward activating their desires and passions, which has been
356 proven to motivate employees to be fully engaged and to strive toward outstanding success at

work (Ye et al., 2019). Servant leaders concentrate on empowering employees, involving them in decision-making and constantly supporting their development. They believe that employees who are motivated and empowered can perform productively by demonstrating innovative behaviors and going beyond their daily routine tasks to meet customer expectations and satisfaction. Accordingly, we suggest that servant leadership stimulates hospitality employees to show personal initiative when performing environmentally friendly actions in the workplace. Beyond that, we believe that servant leadership, if it interacts with the principles of green HRM, has a stronger effect on the green performance of employees and, with its specific strategies, leads to proactive environmental behaviors among employees. Therefore:

H3b: Servant leadership moderates the impact of green HRM on proactive P-EP.

Servant leadership acts as a very important motivating factor that can provide employees with valuable resources and information that are essential to their work and personal growth, including learning opportunities (Eva et al., 2019). Following SLT regarding the significance of the leader's role modeling as the main process through which social influences occur in an organization, social learning helps employees to better interact and cooperate with others and to retain critical information, which in turn leads to more effective organizational performance. In other words, servant leaders help employees obtain and retain the information they need to work more effectively in the organization (Qiu, Dooley, & Xie, 2020). In order to help followers grow to perform better, servant leaders provide opportunities for them to gain professional knowledge and also strive to provide useful information and awareness of what may be beneficial to the individuals and to the organization (Karatepe, Aboramadan, & Dahleez, 2020). If the principles of the organization are based on a specific type of performance, such as green performance, it is obvious that a service leader will take steps to inform employees of the principles of green performance and environmental behaviors (Eva et al., 2019; Ying et al., 2020). As a result, we can assume that if the organization's focus is on environmental protection and implementing green HRM practices in the organization, and servant leaders also take steps in this direction, it will have a double effect on employees' environmental awareness to show P-EP. Therefore:

H3c: Servant leadership moderates the impact of green HRM on environmental awareness.

389   The research model (see Figure 1) shows a structural analysis of the study constructs (green

390   HRM, environmental awareness, servant leadership, task-related P-EP, and proactive P-EP).
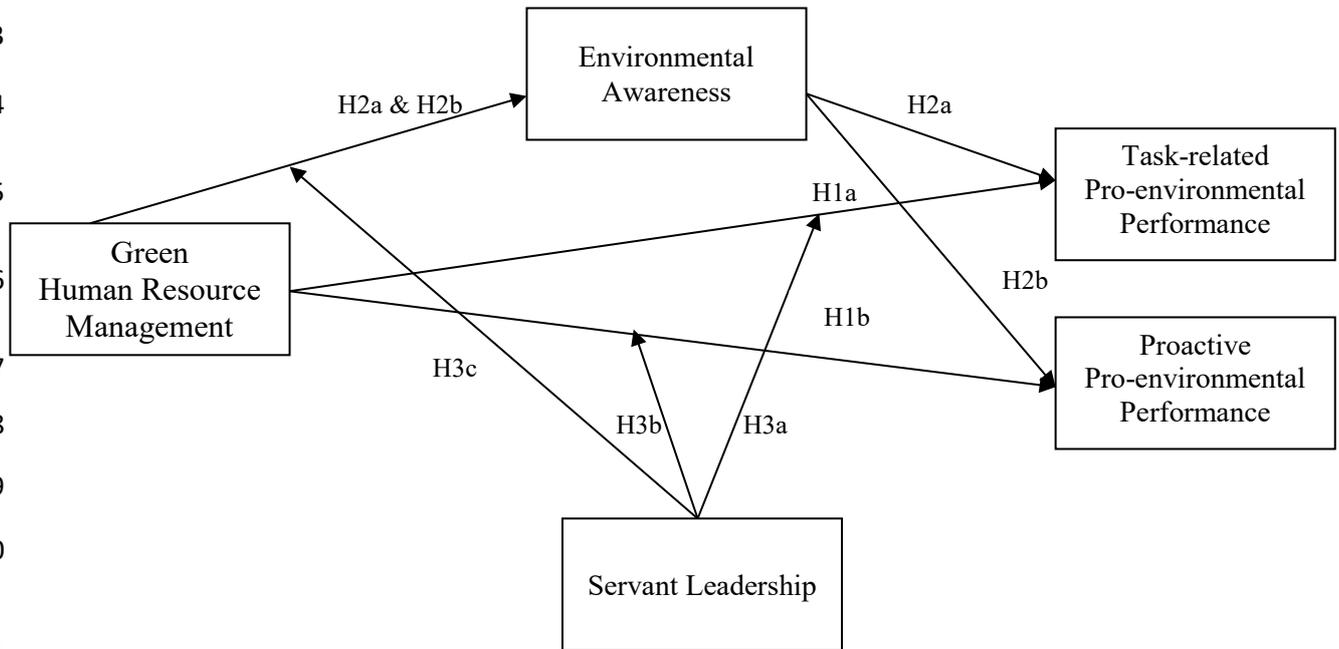
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394   H2a & H2b

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402   Figure 1: Proposed mediating and moderating model of pro-environmental performance

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Figure 1: Proposed mediating and moderating model of pro-environmental performance

4. Methodology

4.1 Research context

This research was conducted in four- and five-star hotels in Almaty, Kazakhstan. Hotels in Almaty were selected for the sample because Almaty is one of the most visited cities in Kazakhstan. It is considered a financial, tourist, and cultural center in Kazakhstan, where tourism is one of the most advanced industries, and there are numerous four- and five-star international hotels in the city, which annually hosts tourists from all over the world (Almaty, Kazakhstan Population, 2019).

An overview of the available data shows that Kazakhstan has taken important steps in the field of environmentally friendly activities. Kazakhstan has established legal frameworks and policies related to the environment, greening the economy, monitoring the environment and related activities, public participation, and various training and education programs for sustainable development. Kazakhstan is trying to integrate environmental considerations into its policies in the energy, industrial, agricultural, and health sectors. In addition, its climate change adaptation and mitigation measures, and its contribution to international mechanisms, are significant. Almaty (the former capital of Kazakhstan), which had a population of 1.8 million at the start of 2018, remains the most important scientific, cultural, and financial centre (Ostrovskiy, Garkavenko, & Rybina, 2021; UN, 2019). Executive reports from Almaty and other metropolitan cities in Kazakhstan show evidence of countless efforts to enhance and improve the quality of public transport services, develop a user-friendly recycling infrastructure, and move toward eco-friendly fuels. As of early 2018, several councils have been established to create mechanisms and planning to address the growing pressures from the tourism sectors on protected areas (UN, 2019). In addition, hospitality, as an integral part of tourism, has a significant impact on the development of foreign economic relations in Kazakhstan (Myrzaliyev, Nahipbekova, Dandaeva, Izzatullaeva, & Baibosynova, 2018); however, to the best of our knowledge, Kazakhstan's hotel industry's environmental policies have not yet been studied. The contribution of the hospitality industry to environmental pollution is highly obvious (e.g., the production of greenhouse gases through commercial refrigeration and air conditioning systems in hotels), and studies are needed to investigate the factors and strategies needed to prevent and reduce these issues in order to protect the environment. This study is one of the first on environmental policies in the hotel industry in Almaty, Kazakhstan, to examine the existence and impact of green HRM on hotel employees' pro-environmental performance.

4.2 Data collection process

The purposive sampling technique was used to select the four- and five-star hotels. This approach increased the likelihood of selecting the most appropriate sample, since high-star hotels are more likely to adopt advanced green HRM practices in their operations because their basic structure and organizational culture entails accepting and implementing green management programs (Pham et al., 2020). In addition, similar previous studies on green HRM have collected data from four- and five-star hotels (Ababneh, 2021; Pham et al., 2019).

Out of 41 hotels (eight five-star and 33 four-star hotels), five five-star and ten four-star hotels agreed to cooperate with us. After human resource departments' approval, questionnaires were distributed to the available employees. The respondents were required to answer the items and return the answered questionnaire to the person in charge. Two hundred eighty six questionnaires were distributed among employees in person (100 questionnaires to five-star hotels, with the rest to four-star hotels), and 222 questionnaires were returned, of which 220 questionnaires were valid (76.92% response rate). A total of 139 (63.18%) questionnaires were collected from 10 four-star hotels and 81 (36.82) from five five-star hotels. The sample size is consistent with the sample size of other researchers who have conducted their studies in Kazakhstan (Nahipbekova & Kuralbayev, 2018; Trusheva & Syzdykbaeva, 2018).

4.3 Procedural remedies

In order to reduce common method variance problems in the comprehension stage of the data collection process, the survey questionnaire was carefully designed and procedural remedies during the process of data collection were applied (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). First, the questionnaire included instructions on how to answer the items. We reassured respondents of the anonymity, confidentiality as well as voluntary participation in the survey, and we asked them kindly to answer the items as honestly as possible. In addition, we informed them that there was no right or wrong answer. Then, we systematically examined the construction of each item to ensure that vague, ambiguous, and unfamiliar phrases were not included, and we kept the language as simple and clear as possible. Moreover, the order of the statements was balanced to reduce the probability of respondents "guessing" (Malhotra, Kim, & Patil, 2006).

4.4 Measurements and analysis

Six items adapted from Shen and Benson (2016) and Hsiao, Chuang, Kuo, and Yu (2014) were used to evaluate green HRM; these were also used by Kim et al. (2019). Seven items were adopted from Liden et al. (2014) to measure servant leadership, which were also used by

471   Karatepe, Ozturk, and Kim (2019). Four items were used to evaluate environmental awareness,

472   which adapted from Han and Yoon (2015), and Ryan and Spash (2008); these were also used by

473   Rezapouraghdam, Alipour, and Darvishmotevali (2018). Employee task-related and proactive P-

474   EP were tested by using three items based on Bissing-Olson et al. (2013), which were also used

475   by Dumont, Shen, and Deng (2017).

476   The respondents were asked to respond to all the questions using a five-point Likert scale. In

477   addition, measurements were first created in English and then all of them translated into Russian

478   by a professional English–Russian translator. Subsequently, all measurements were translated

479   back into English to check the comparability. A pilot study was conducted by inviting 12

480   employees to complete the survey to assess the understand ability of the questions and the time

481   taken for completion, and to identify any other issues. The outcome of the pilot study was

482   satisfactory and no revisions were deemed necessary.

483   A consistent partial least squares (PLS) algorithm was applied to conduct confirmatory factor

484   analysis and evaluate measurement reliability and validity. Consistent PLS bootstrapping was

485   used to test the causal relationships of the studied hypotheses.

486

5. Results

5.1 Respondents' demographic information

More than half of the respondents (55.9%) were male, with the rest being female. In the age category, 53.2% of employees were between the ages of 18 and 27, showing that the majority of the hotels' workforce was at their most active age, while only 0.5% was aged 58 or above. In terms of academic qualifications, more than half of the respondents (55.9%) had an undergraduate degree, and 23.2% had a vocational certificate. With regard to working experience at the hotels, 44.2% of the respondents had held their jobs for 1–5 years, while only 5.5% had held their jobs for 16 years or more. Table 1 summarizes the demographic data of respondents.

Table 1 Respondents' demographic information

Item	Categories	Response	Percentage
Age	18-27	117	53.2
	28-37	63	28.6
	38-47	26	11.8
	48-57	13	5.9
	58 and above	1	0.5
Education	Primary & secondary school	7	3.2
	High school	9	4.1
	Vocational school	51	23.2
	Bacher degree	123	55.9
	Master or PhD	30	13.6
Gender	Male	123	55.9
	Female	97	44.1
Tenure	Less than 1 year	71	32.3
	1-5 year	74	33.6
	6-10	46	20.9
	11-15	17	7.7
	16 and above	12	5.5
Hotel	four-star (n =10)	139	63.18
	five-star (n = 5)	81	36.82

Sample size = 220

5.2 Evaluation of reflective and formative measurements model

As recommended by Han and Yoon (2015), the reflective and formative constructs were evaluated before the structural model was assessed. Four steps (internal consistency reliability [ICR], indicator reliability, convergent validity, and discriminant validity) were utilized to assess the reflective measurement (Hair, Hult, Ringle, Sarstedt, & Thiele, 2017).

First, all values of Cronbach's alpha (α) and composite reliability (CR) were above 0.70, which meets the minimum requirement of 0.70 and supports ICR. Second, according to the results of the consistent PLS algorithm analysis, some items were deleted for various reasons, such as low outer loadings (GHRM1 & GHRM3, LS1, LS4, LS5), to increase the average variance extracted

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508 (AVE) value (Proactive P-EP 3 & GHRM3) and improve the variance inflation factor (VIF)

509 (Env. Awareness1). The majority of outer loadings exceed 0.70, which is the minimal required

510 value, and only three items (SL2, SL3, and SL7) had loadings below 0.70. However, according

511 to Hair et al. (2017) if deleting items with outer loadings between 0.40 and 0.70 does not

512 improve the CR, they can be retained. After testing, the three items were retained and indicator

513 reliability was confirmed. Third, convergent validity was used to test the measurements. The

514 factor loading, AVE, and CR were used to assess the convergent validity. The AVE and CR

515 values of the constructs were 0.527 and 0.817 for green HRM, 0.773 and 0.911 for

516 environmental awareness, 0.516 and 0.807 for servant leadership, 0.661 and 0.854 for task-

517 related P-EP, and 0.542 and 0.703 for proactive P-EP. As shown in Table 2, all factor loadings

518 were significant, with AVE values above 0.5, and all the CR values were above 0.7 (Fornell &

519 Larcker, 1981; Hair et al., 2017), which supports convergent validity. Fourth, the heterotrait–

520 monotrait (HTMT) ratio was applied to check discriminant validity (Henseler, Ringle, &

521 Sarstedt, 2015). As shown in Table 4, the HTMT value is less than the 0.85 threshold,

522 demonstrating that discriminant validity was established (Franke & Sarstedt, 2019). Moreover,

523 the square root of the AVE values for each variable were greater than the correlation coefficient

524 between the construct and other constructs, which support discriminant validity as well (Hair et

525 al., 1998).

526 Table 2 Evaluation of reflective measurement model

Constructs and Items	Outer Loading	α	rho-A	CR	AVE	√AVE
Environmental Awareness		0.910	0.911	0.910	0.772	0.879
Env. Awareness1	-					
Env. Awareness2	0.856					
Env. Awareness3	0.865					
Env. Awareness4	0.923					
Task - related P-EP		0.854	0.854	0..854	0.661	0.813
Task- Related P-EP1	0.790					
Task- Related P-EP 2	0.822					
Task- Related P-EP 3	0.825					
Proactive P-EP		0.702	0.702	0.702	0.541	0.736
Proactive P-EP 1	0.758					
Proactive P-EP 2	0.714					
Proactive P-EP 3	-					

527

528 The formative measurement model was evaluated by testing convergent validity, collinearity

529 issues, and the significance of the formative indicator. As discussed above, convergent validity

530 was confirmed. To address the collinearity issue, VIF was measured. Table 3 shows that all VIF

531 values were below 5, which indicates that there is no potential collinearity issue. Finally, the

532 results confirmed the items' significance and relevance (outer weights and outer loadings).

Table 3 Evaluation of formative measurement model

Constructs and Items	VIF	Outer Weights	Outer Loadings
Green HRM			
GHRM1	-	-	-
GHRM2	1.768	0.316	0.737
GHRM3	-	-	-
GHRM4	1.822	0.308	0.718
GHRM5	1.591	0.320	0.747
GHRM6	1.659	0.301	0.702
Servant Leadership			
SL1	-	-	-
SL2	1.473	0.281	0.639
SL3	1.734	0.286	0.650
SL4	-	-	-
SL5	-	-	-
SL6	1.770	0.388	0.881
SL7	1.719	0.297	0.674

Note: GHRM = Green HRM; SL = Servant Leadership; VIF = Variance Inflation Factor.

5.3 Descriptive statistics

Table 4 shows the means, standard deviation, and correlations among all the variables. Green HRM significantly correlated with environmental awareness (r = 0.282), task-related P-EP (r = 0.280), and proactive P-EP (r = 0.446). Environmental awareness positively correlated with servant leadership (r = 0.203) and proactive P-EP (r = 0.284). Servant leadership also significantly and positively correlated with proactive P-EP (r = 0.368) and task-related P-EP (r = 0.237).

Table 4 Descriptive statistics, correlations, and HTMT

Variables	Mean	Standard Deviation	1	2	3	4	5
1- GHRM	3.252	0.804	1.000	*0.328*	*0.118*	*0.336*	*0.590*
2- Environmental Awareness	3.274	0.928	0.282*	1.000	*0.236*	*0.098*	*0.355*
3- Servant Leadership	3.421	1.038	0.063	0.203*	1.000	*0.444*	*0.315*
4- Task – Related P-EP	3.371	0.876	0.280*	0.086	0.368*	1.000	*0.407*
5-Proactive P-EP	3.148	0.937	0.446*	0.284*	0.237*	0.315*	1.000

*Note :*HTMT = Heterotrait – Monotrait Ratio (show in *Italic* & Bold); *p<.001 (2-tailed test).

5.4 Hypotheses test results

Path coefficients and t values were estimated by the consistent PLS bootstrapping method to test the study's hypotheses. Table 5 presents the findings for the direct effects and the two mediating effects. Hypotheses H1a and H1b assess the causal relationship between green HRM and task-related P-EP, and proactive P-EP, respectively. The findings demonstrate that green HRM is positively related to task-related P-EP (β = 0.338, p < 0.01) and proactive P-EP (β = 0.530, p < 0.001), which supports H1a and H1b. The results of the mediation analysis indicate that the

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relationship between green HRM and P-EP is partially mediated by environmental awareness (β = 0.182, p < 0.05), but there is no mediator confirmed between green HRM and task-related P-EP (β = -0.013, n.s.). Therefore, H2b is confirmed, but H2a is rejected.

Table 5 Direct and Mediating Effects

		Dependent variable					
		Task-Related P-EP		Proactive P-EP		Env. Awareness	
	Variables	$\beta(p)$	t	$\beta(p)$	t	$\beta(p)$	t
	Independent						
H1a&H1b	Green HRM	0.338(0.001)	3.459	0.530(0.000)	6.101	0.327(0.000)	3.965
	Mediator						
H2a&H2b	Env. Awareness	-0.013(0.868)	0.166	0.182(0.018)	2.361		

Note: Environmental Awareness = Env. Awareness.

In the next step, the moderating hypotheses were tested by using the consistent PLS bootstrapping method. H3a proposed that servant leadership moderates the impact of green HRM on task-related P-EP; H3b proposed that servant leadership moderates the impact of green HRM on proactive P-EP; and H3c proposed that servant leadership moderates the impact of green HRM on environmental awareness. Table 6 shows the three moderating effects. The results of the moderating analysis show that the interaction effect of green HRM and servant leaders on proactive P-EP (β = 0.165, p < 0.001) and on environmental awareness (β = 0.135, p < 0.001) is significant, whereas there is no significant interaction effect on task-related P-EP (β = 0.048, n.s.). Therefore, H3b and H3c are confirmed, but H3a is rejected.

Table 6 Direct and Moderating Effects

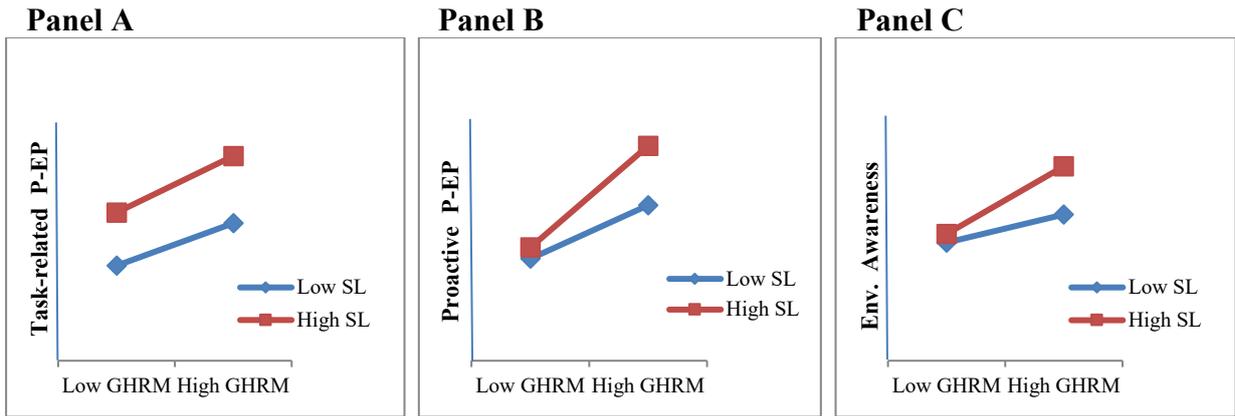|		Dependent variable					
		Task-Related P-EP		Proactive P-EP		Env. Awareness	
	Variables	$\beta(p)$	t	$\beta(p)$	t	$\beta(p)$	t
	Moderator						
	SL	0.411(0.000)	4.807	0.241(0.000)	3.478	0.194(0.000)	3.440
	Interaction effect						
H3a,H3b,H3c	GHRM×SL	0.048(0.733)	0.341	0.165(0.000)	1.041	0.135(0.000)	0.968

Note: Environmental Awareness = Env. Awareness; SL = Servant Leadership.

Figure 2, Panel B and C, indicate the significant positive moderating effect of servant leadership on the impact of green HRM on proactive P-EP and environmental awareness respectively. However, in Panel A, the interaction effect of servant leadership and green HRM on task-related PEP does not significant.

**Panel A** — Task-related P-EP, Low GHRM / High GHRM, Low SL / High SL

Panel B — Proactive P-EP, Low GHRM / High GHRM, Low SL / High SL

Panel C — Env. Awareness, Low GHRM / High GHRM, Low SL / High SL

Figure 2: The slope test results

The results of path analysis (direct, mediating, and moderating) are graphically displayed in figure 3. Non-significant effect indicated as dotted line. The beta coefficients (*β*) value are significant at the level of *p < 0.001, **p < 0.01, ***p < 0.05(2-tailed).
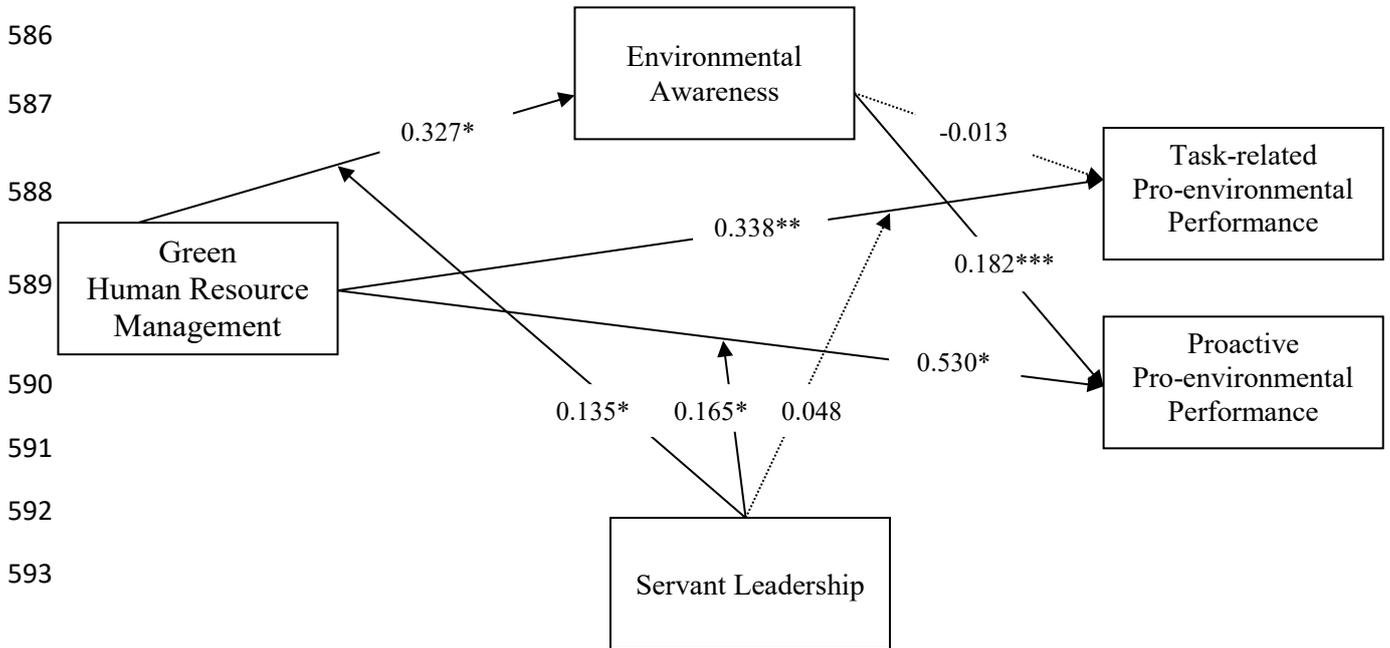
Figure 3: Results of path analysis

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6. Conclusion

6.1 Discussion

The present study set out to examine the mediating role of environmental awareness and the moderating role of servant leadership on green HRM and employees' P-EP relationship in the hotel industry in Almaty. The findings support some but not all of the research hypotheses.

In particular, the findings provide support for H1a and H1b, which refer to the direct and significant relation between green HRM and employees' task-related and proactive P-EP. These findings suggest that if employees know the benefits of using green practices and their consequences, they are more likely to be environmentally friendly in the organization and, more importantly, they will voluntarily engage with the company's green activities. Therefore, we can argue that green HRM practices would influence the environmentally friendly behaviors of employees positively and boost the environmental productivity programs of organizations. These results are in line with Pham et al.'s (2019) argument that environmental productivity programs and practices enable the creation of environmentally sensitive, resource-efficient, and socially responsible organizations and leads employees to adopt a green orientation in the organization (Pham, Tučková, & Jabbour, 2019). This present study's findings also provide support to the previous research that has shown that employees' task-related behavior is influenced by the green HRM practices of their organization (Chaudhary, 2020; Dumont et al., 2017; Lu, Liu, Chen, & Long, 2019). The findings reveal that employees perform the green duties that are formally required by the organization (Bissing-Olson et al., 2013). Employees' favorable understanding of green HRM practices leads them to better interact with the task-related P-EP (Tian, Zhang, & Li, 2020).

By confirming H1b, the findings provide further support to the previous research, which found that green HRM to be directly and significantly related to proactive P-EP and extra-role environmental behaviors in the workplace (Chaudhary, 2020; Dumont, et al., 2017; Saeed et al., 2019). It can be argued that proactive P-EP is characterized as employees' initiative to take part in green behavior beside their routine job duties. It has been argued that employees under green HRM play a crucial role in helping organizations proactively adopt environmental sustainability, and that the employees boost the organization's environmental performance by their proactive P-EP (Ahmed et al., 2021). Green HRM policies and practices focus on facilitating and sharing information with employees to develop their green capabilities, to encourage them to engage in green activities, and to create green opportunities for employees' proactive environmental

628   performance (Aragon-Correa, Martin-Tapia, & Hurtado-Torres, 2013; Shafaei, Nejati, & Mohd,
629   2020).

630   The support for H2b confirms the significant indirect relation between green HRM and
631   employees' proactive P-EP via a mediating role of environmental awareness. These findings,
632   which align with those of Kim et al. (2019) and Roscoe et al. (2019), suggest that if employees
633   have a better understanding of the environment and know that they can make a significant
634   contribution to its protection, then they assume responsibility for engaging with environmental
635   issues and activities. It can also be argued that environmental awareness as an outcome of green
636   HRM can lead to proactive environmentally friendly behaviors in the workplace involving the
637   application of environmental protection and conservation strategies. Green HRM through
638   environmental education and trainings establishes a desirable environmental culture and informs
639   employees of various aspects and values of environmental management required to achieve
640   environmental goals (Aktar & Islam, 2019; Chaudhary, 2020). The findings of this study also
641   support the arguments of Shafaei et al. (2020) that green HRM aims to promote diversity of
642   skills and job importance among employees by providing a shared environmental vision,
643   mission, and targets, and that it increases employee environmental awareness through training
644   programs (Shafaei, Nejati, & Mohd, 2020). The results do not support H1a, which points to the
645   intermediary role of employees' environmental awareness in the causal relationship between
646   green HRM and task-related P-EP. The reason for this may lie in the task-related or in-role
647   performance, and specifically in the type of function that is part of the employee's main duties.
648   In short, employees know how to perform tasks for which they are responsible, based on their
649   primary training in the organization and on the organizational culture.

650   Regarding the moderating hypotheses, the results were very prominent and surprising. The
651   findings demonstrate that servant leadership has an impact on task-related P-EP. However, the
652   interaction effect of servant leadership and green HRM on task-related P-EP was not significant.
653   This could be due to the nature of task-related behavior as part of employees' main duties in the
654   organization, where, with or without special strategies, employees may perform their tasks, such
655   as green activities, automatically. More importantly, support from the leaders seems to be
656   sufficient for employees to perform their duties in the organization.

657   In addition, and consistent with the study by Ying et al. (2020), the results demonstrate the
658   significant impact of servant leadership on employees' proactive P-EP. In line with SLT, it can
659   be argued that servant leaders help the followers recognize and develop their full personal
660   potential. Servant leaders also provide opportunities for employees to examine their behaviors
661   and performance. They have the ability to encourage employees to follow organizational

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principles. However, it is notable that the findings show that although the interaction effect of green HRM and servant leadership on proactive P-EP and employees' environmental awareness is positive and significant, this effect is no more than the separate effects of these two variables. In other words, although the study sample was significantly supported by their servant leaders and green HRM, the interaction effect was not fully supported, which could mean that although servant leaders may support employees in various ways to accomplish their tasks, this support does not come with green HRM that specifically focuses on employees' proactive green behavior or environmental awareness. This support could well be through servant leaders acting as role models, through "leadership by doing and showing", and/or through psychological support and encouragement by leaders in support of green behaviors.

6.2 Theoretical contribution

The present research contributes significantly to the general HRM literature and in particular to the hospitality green HRM studies. First, our study pursues the recent shift in the hospitality management studies stream from employees' performance to P-EP in the hotel industry. The importance of the current research is that it pays attention to the environment and environmental protection, especially in industries that directly work with the environment and impact on it, such as the tourism and hospitality industry. Furthermore, follow the latest experimental research on employees' environmental behaviors, such as that by Alzubaidi, Slade, and Dwivedi (2021), Kim and Stepchenkova (2020), and Li et al. (2019), our study does not look at environmental performance and behavior in general but instead evaluates the pro-environmental behaviors in detail by considering task-related and proactive P-EP.

Second, to elucidate the process by which green HRM impacts P-EP through environmental awareness, our research model draws on SCT (Bandura, 2001). It provides further support for the tenets of SCT through the mediating role of environmental awareness within the impact of green HRM on task-related and proactive P-EP. Moreover, previous studies have been limited in terms of the mediating mechanism between green HRM and task-related and proactive P-EP as two main types of employees' green behavior, so this study aimed to fill this gap (Chaudhary, 2020; Tian, Zhang, & Li, 2020).

Third, our study utilized SLT to explain the moderating role of servant leadership in the model. This research extends this theory by showing that servant leadership can prompt employees to show pro-environmental tendencies and develop their intentions to engage in green behaviors beyond the call of duty. Most importantly, the findings show that achieving specific job outcomes or job attitudes requires specific types of servant leadership that work closely with the

green HRM department to achieve better and more significant results. Our study thus supports recent research in the field of hospitality that has concentrated on the potential of environmentally specific servant leadership in stimulating P-EB (Luu, 2020; Tuan, 2020).

Overall, by examining and evaluating the role of green-oriented organizations to promote individuals' green behaviors and depicting the roles of organizations and individuals in shaping P-EP, our research provides empirical evidence for flourishing P-EP in the context of the hospitality sector. Our findings about the causal relationships between the organization and employees advance our understanding of the importance of all members of the organization achieving organizational goals.

6.3 Practical contributions

The findings of this research provide practical contributions that are relevant to policy-makers, experts, researchers, and organizations. It is important to note that even though this study did not employ a macro perspective during the analysis, we suggest that policy-makers introduce laws and regulations in order to support and encourage green initiatives including impact assessments and waste management systems within the tourism and hospitality industries. More specifically, these could include technological standards for emissions, discharges, and technological-specific standards for the water, electrical, and thermal energy consumption. We believe that the importance of the responsibility of large industries regarding environmental sustainability is more critical vis-a-vis the individual's responsibility. In other words, at the macro-level, green strategies and practices could be more impactful in generating a truly sustainable effort. Establishing a green organizational culture, which is based on green consumerism, the use of environmentally friendly products, green attitudes and, most importantly, providing opportunities for the application of new knowledge and initiatives for environmental activities will stimulate individual responsibility to expend more effort to protect the environment.

These industries play an important social role in tackling the global challenge of environmental protection. They therefore need to adopt a transformational approach to embedding green values into their strategies and practices by adopting the international codes of practices that definitely requires environmental impact declarations in Kazakhstan.

Specifically, we recommend that green values be embedded into employee selection, recruitment, performance measurement and reward, training, and motivation practices. Employee selection and recruitment criteria, as well as job descriptions, could emphasize and highlight the importance of pro-environmental behaviors. In the recruitment and selection process, the organizations could hire employees who match the environmental protection vision and values.

Through the recruitment and selection criteria and job description, organizations could convey the key messages about the importance of environmental protection to the potential employees; promoting 'an environmentally aware fit'. Both intrinsic and extrinsic rewards could be used to encourage and incentivize pro-environmental behaviors. Extrinsic rewards could include cash bonuses as direct payments that could encourage desired behaviors. Intrinsic rewards could include the acknowledgement and recognition of employees' 'good pro-environmental behavior' through announcing them as the 'green employee of the month'. Likewise, regular formal and informal training activities could emphasize and promote the importance of pro-environmental behaviors among employees. Green training should focus on the development of employees' green skills, environmental knowledge, and environmental preservation. Leadership should set a clear sense of "green direction" and guide employees to achieve green organizational goals for the benefit of the community, society, country, and world. Servant leaders should continually challenge the status quo and transform their hospitality organizations toward more proactive collective environmental awareness and protection practices.

6.4 Limitations and future research

Despite these contributions and implications, the present study entails several limitations that can serve as ideas for future research. First, this study focused on general HRM practices to provide insights regarding P-EP, and obtained interesting findings. However, future studies might focus on a specific green management approach, such as employee hiring criteria, green training, or green leadership. Moreover, because different types of environmental performance have been identified in the literature, future studies might also examine other possible green HRM outcomes, such as green creativity and green consumer behavior. Second, the present research can be extended by using other personal and organizational factors to explain the mediating process, such as green minldset and green empowerment. It is also suggested that further studies be conducted to test additional moderating alternatives that have the potential to strengthen the green HRM and P-EP relationship, such as intrinsic rewards and supervisors' personality traits. Third, this study comprised a single quantitative study and used a cross-sectional survey to collect data; therefore, qualitative research or a mixed-methods approach that applies a time lag for data collection is strongly recommended. Finally, the study is one of the first conducted in Almaty, Kazakhstan, on green HRM, its mechanisms, and, more importantly, its green outcomes. The results are novel and significant. Therefore, more studies on these variables in the same context are needed to help generalize the findings to the greatest extent possible.

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