Bridging the GAP: exploring the nexus between green human resource management, organizational citizenship behavior towards the environment, employee green commitment, and environmental performance in hotels

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ABSTRACT

The relationship between green human resource management (GHRM) and environmental performance (EP) has received little attention in the past, despite the hotel management discipline's mediation analysis being one of the areas examined. To fill this research gap, the study expands upon the Ability-Motivation-Opportunity (AMO) and social identity theory (SIT). It also goes beyond what has already been written by examining the relationship between environmental performance and green human resource management by examining the roles of Employee Green Commitment (EGC) and Organizational Citizenship Behavior towards the Environment (OCBE). According to a survey conducted on 273 hotel employees, it has been found that GHRM plays a positive and significant role in promoting Organizational Citizenship Behavior towards the Environment (OCBE), Employee Green Commitment (EGC), and environmental performance (EP) of hotels. Additionally, implementing green human resource management can have a considerable and favorable influence on both environmental performance and employees' commitment to eco-friendliness. It was observed that organizational citizenship behavior toward the environment and employee green commitment play a significant role in mediating the relationship between Green human resource management and hotel environmental performance. The data from the survey were analyzed using Smart-PLS 4 which involved conducting validity and reliability tests on the instruments and testing the hypothesized relationships using SEM analysis. Based on this report, it is recommended that HR managers and hotel top management develop green HRM policies to promote sustainability in the hospitality industry.

Introduction

Protection of the environment and sustainability have become international issues. In the context of environmentally friendly business practices, the topic of “Bridging the Gap: Exploring the Nexus between Green Human Resource Management, Organizational Citizenship Behavior towards the Environment, Employee Green Commitment, and Environmental Performance in Hotels” is highly significant. Because it tackles an urgent issue in the hotel sector, which is known for having a significant environmental impact. Hotels are frequently energy-intensive businesses, and the waste and resources they use daily can be greatly increased by their operations. Furthermore, since hotels are service-oriented enterprises, green HRM practices are essential to green performance.

In today’s business world it has become crucial for organizations to prioritize sustainability as a focus. However there is still a gap that needs to be addressed when it comes to understanding and utilizing the interaction, between Green Human Resource Management...
(GHRM) citizenship behavior towards the environment (OCBE) Employee green commitment (EGC) and Environmental Performance (EP) in the hospitality industry. This study aims to explore this relationship and shed light on an area that requires research.

What sets this research apart is its focus on how initiatives in Green HRM employees’ environmentally responsible behavior their commitment to eco-friendly practices and the resulting positive environmental outcomes all come together within hotel settings. While previous studies have touched on aspects of this network individually there hasn't been an analysis yet. Some studies have looked at how GHRM practices influence individuals’ pro attitudes or their impact, on the overall environmental performance of organizations. However, no framework has fully integrated these elements within the context of the hospitality sector. This study aims to bridge that gap by proposing a model that not establishes these relationships but also by examining the mediating mechanisms between EGC and OCBE, this study contributes to the body of existing work. Gaining insight into how proactive environmental behaviors and employee commitment influence the effect of GHRM on hotel environmental performance is beneficial. It clarifies the complex relationships that exist within the hospitality industry and how employee participation in sustainability programs affects the overall condition of the environment as a whole. This knowledge can be extremely beneficial to HR specialists and hotel managers who want to encourage employees to actively support environmental sustainability and put into practice efficient green practices. Furthermore, by providing a comprehensive grasp of how GHRM can successfully improve environmental performance within a particular industry, it advances the fields of sustainability management and Green HRM more broadly. This opens the door for more ethical and sustainable business practices.

By uncovering these connections this study seeks to make a contribution, to the integration of environmental management practices and human resource strategies. It aims to provide insights that can strengthen practices within the ever changing landscape of the hospitality industry.

It is critical to recognize the unique characteristics of the Afghan hotel sector within the context of "GHRM and Hotel's EP." Unlike more developed Western hotel markets, the Afghan hotel industry operates in an environment determined by a variety of issues, such as cultural norms, security concerns, and resource limits. In light of these particular challenges, there is a chance that the implementation of EGC and OCBE, as well as the use of GHRM, will vary significantly from conventional models. To create practical and contextually relevant sustainability strategies, it is therefore essential to comprehend and adjust to the unique features of this industry and the Afghan context. This will lead to an investigation that has direct and visible consequences for the Afghan hospitality sector as well as possibly other areas with comparable contextual complexities.

Among the green initiatives used by service sectors like hotels include waste reduction, water and energy conservation, and employee and customer education (Bohdanowicz et al., 2011; Rahman et al., 2012). Hilton, for instance, developed reporting systems to track company success and set operational goals, rules, and eco-friendly programs to safeguard the environment. Hilton Worldwide was able to cut its overall use of water by 14.1% and energy consumption by 14.5% between 2009 and 2014. Another big hotel operator, Marriott International, has supported environmental conservation efforts through preservation programs.

Previous studies have largely examined green marketing from the perspective of the consumer (Kim and Choi, 2013). Manaktola and Jauhari (2007) conducted a study on the attitudes and actions of customers towards hotels that implement environmentally conscious policies. American hotel clients showed greater concern for the environment and less concern for price, according to Kang et al. (2012). The opposing stream, the employee perspective, deals with issues related to attitudes and awareness of the hotel workers (Bohdanowicz, 2005; Harris and Crane, 2002). Even though employee behavior has a major role in enhancing environmental results, there has not been enough empirical study done to link green human resource management (GHRM) to environmental performance through employee behavior and commitment (Fernández et al., 2003; Paillé et al., 2014).

Despite this, the majority of GHRM research has focused on how GHRM affects people individually or within organizations. For instance, the first stream (Dumont et al., 2017; Luu, 2019) focused on GHRM-related employee behaviors. The second stream looked at how GHRM influences (EP) (Masri and Jaaron, 2017; Roscoe et al., 2019). GHRM’s ability to mediate employee environmental commitment and green behavior (such as OCBE and EGC) is still missing, nevertheless, when it comes to EP. According to Kim et al. (2019), an organization's environmental management efficiency is significantly influenced by employee environmental behavior that promotes EP. Kim et al. (2019) look into how employees' green behavior influences the relationship between GHRM and green performance in hotels in the hospitality sector. Additionally, as stated by Renwick et al. (2013), some researchers (e.g., Pinzone et al., 2016) use the Ability-Motivation-Opportunity (AMO) theoretical framework developed by Appelbaum et al. (2000) to explain GHRM. According to the AMO hypothesis, HRM may enhance an organization's performance by providing employees with greater chances, incentives, and skills (for example, through training), as well as by applying performance management methods (for example, by setting up a recommendation system). Most recent research has concentrated on the significance of GHRM, which is believed to be crucial for promoting green behavior and green attachment among employees (Pinzone et al., 2019; Chaudhary, 2019; Pham et al., 2019c), as well as for increasing the environmental effectiveness of organizations (Zhang et al., 2019).

To fill the existence gap such as: First, people and government have expressed worry over environmental issues. Second, In addition to regional companies, foreign and multinational enterprises operating in Afghanistan also prioritize environmentally conscious practices due to environmental regulations and standards set by their headquarters. Third, according to Massoud et al. (2010), developing nations, like Afghanistan, have faced challenges like inadequate infrastructure, illogical policies, ineffective
environmental regulations, and human and financial constraints that prevent businesses from successfully implementing the environmental management system.

As a result, this study aims to close the aforementioned research gaps. To respond to the following questions, we investigate in this study how GHRM affects both the organizational and individual levels:

RQ1: How does GHRM affect EP, OCBE, and EGC directly?

RQ2: Do OCBE and EGC operate as a mediating factor between GHRM and EP?

Furthermore, little research has been done on how GHRM encourages EGC and OCBE, enabling hotels to raise their EP. This study's primary objective is to improve knowledge of how to improve EP by investigating the functions of OCBE, EGC, and GHRM. To achieve these objectives, we look into two things: (1) the relationships between GHRM, EGC, OCBE, and EP; and (2) how EGC and OCBE act as mediators between GHRM and EP.

There are two theoretical advances made by the study. Firstly, it offers a comprehensive examination of the precise connection between a hotel's EP and (GHRM). The voluntary efforts of employees who go above and beyond their assigned responsibilities are reflected in OCBE, and these acts can have a big impact on a hotel's environmental sustainability. In a similar vein, EGC is a measure of how deeply committed staff members are to eco-friendly behavior, which can be crucial in advancing sustainability programs. By identifying these factors as mediating variables, the study recognizes that the relationship between GHRM and EP is neither simple, but rather the result of a complex process involving employees' active participation and dedication. The study further enhances its application by taking OCBE and EGC into account as mediators. It implies that GHRM can improve a hotel's environmental performance by encouraging employees to voluntarily participate in sustainability initiatives in addition to implementing policies that support them. The study's theoretical innovation also resides in its potential to expand on current models by adding these new factors, which enhances the body of knowledge in the field of sustainability management and Green HRM. The role of OCBE and EGC as mediators offers a comprehensive and detailed comprehension of the complex dynamics involved, providing the study both theoretically sound and practically applicable.

Our study attempts to examine the relationships between the various factors through quantitative research method by using the random sampling technique to the survey questionnaire from respondents who works in hotels in three big cities of Afghanistan Namely Kabul, Kandahar and Herat, to gather data. Furthermore, we will employ SPSS version 25 to evaluate descriptive statistics and Smart-PLS version 4, to utilize data analysis for evaluating the validity and reliability of the measurements, correlation matrix. For structural model PLS-SEM will be used to verify the study's hypothesized model, as well as to investigate the direct and indirect impact of GHRM Practices on EP.

The outline of this paper is as follows: following the introduction, there is a review of the literature that includes theoretical and empirical research that clarifies the relationships between theory and practice. The prior knowledge of research and methodology is presented in the third section. The authors present discussions and implications following the study's analysis and conclusions. This paper concludes with significant findings, suggestions for further research, and limitations.

**Literature Review**

**Theoretical and Conceptual Background**

This study formulates theories based on HRM theories and articles relevant to the green field. HRM practices are intended to improve employees' skills, motivations, and opportunities, all of which have an impact on organizational performance (Appelbaum et al., 2000). Organizations place a strong emphasis on HRM techniques, developing mediating reactions to workers' motives and skills, which are viewed as a "black box" in the HRM-performance relationship and essential to its mediation (Macky and Boxall, 2007). According to Jiang et al. (2012) and Katou et al. (2014), for example, employee responses (like commitment) and behavior (like organizational citizenship behavior) moderate the effects of HRM practices on organizational performance. Thus, HRM practices based on the AMO theory, like performance management, employee engagement, and training, may have a direct impact on organizational performance, employee commitment, and organizational citizenship behavior toward the environment. Through the mediating functions of employee commitment and organizational citizenship behavior, these practices also have an impact on organizational performance. Furthermore, this study makes use of Ashforth and Mael's (1989) social identity theory (SIT), which holds that an individual's sense of self-concept may be influenced by their membership in a society. According to social identity theory, people enjoy belonging to well-regarded groups because it reinforces their perception of themselves about the group (Tajfel and Turner, 2004; Ashforth and Mael, 1989). SIT highlights the changing relationship between an organization and its workforce. According to some academics (Ashforth and Mael, 1989; Peterson, 2004), workers who actively participate in their organization's positive initiatives and principles tend to exhibit a high level of organizational commitment. For instance, workers who feel positively about CSR initiatives typically show a high degree of organizational commitment (Brammer et al., 2007; Turker, 2009). Similarly, employees who believe favorably in environmental management programs are probably very committed to the organization (Yen et al., 2013). Furthermore, according to social identity theory, employees' behavior and organizational commitment are correlated (O'Reilly and Chatman, 1986). According to Shen and Benson (2016), employees who are committed to the organization are more likely to engage in extra-role behavior beyond their duties, which is also known as (OCBE). Additional research has demonstrated
that workers who have a connection to their organization are more likely to go above and beyond in their extra-role behavior (OCBE) to achieve the organization's aims and vision (O'Reilly and Chatman, 1989; Balfour and Wechsler, 1996).

This idea holds that when workers have a positive perspective of GHRM, they become more committed to the company and exhibit important behaviors at work, such as organizational citizenship behavior toward the environment (Kehoe and Wright, 2013). By extending these claims to the green context, the AMO theory may be used to investigate the relationships between GHRM and EP as well as how EGC and OCBE operate as mediators in these relationships. It is recommended that the SIT look into how GHRM directly affects OCBE and EGC. In line with the findings of earlier researchers (e.g., Longoni et al., 2018), EP serves as one of the metrics used to assess organizational performance in this context. We note that when analyzing how GHRM affects EGC and OCBE, the two theories are frequently applied (e.g., Dumont et al., 2017; Pinzone et al., 2016).

Hypothesis Development

The Direct Impact of GHRM on EP

“Green HRM” or “environmental HRM” are terms used by some academics to refer to the combination of HRM and environmental management (Renwick et al., 2013). The expression "green human resource management" (GHRM) is used in the present research.

According to Renwick et al. (2013), GHRM is concerned with the human resource management component of environmental management. Academics have devised distinct protocols to execute GHRM. For instance, four phases were suggested by Milliman and Clair (1996) for an environmental HRM model: An environmental vision should serve as a guide. Employees should also be trained to communicate their environmental aims and vision. Employee performance should be assessed. Finally, reward programs should be used to recognize environmental efforts made by employees. In the same spirit, Daily and Huang (2001) proposed a theoretical structure for integrating human resource components into the environmental management system. The primary components of environmental HR identified in the suggested model were (1) senior executive assistance; (2) training; (3) enablement; and (4) rewards. Employees are informed about the environmental policy, plan, and other relevant information by top management. Employee empowerment encourages employees to participate in environmental activities, and training aids in their understanding of new environmental practices. Incentives can also encourage employees to practice environmental responsibility. Furthermore, components of the HR viewpoint of environmental management were categorized by Renwick et al. (2013).

Initially, GHRM is concerned with cultivating green skills in hiring, choosing, training, and promoting green leadership.

Second, GHRM addresses employee motivation for sustainability through performance evaluation and awards.

Third, empowering employees and creating an eco-friendly organizational environment are two ways that GHRM encourages employee involvement.

According to Daily et al. (2012), EP is seen as an organization's positive effects on the environment. According to Latan et al. (2018), an efficient environmental management plan also helps an organization achieve its green objectives, such as environmental performance. A significant factor in enhancing green performance can be GHRM (Ren et al., 2018). Employees who receive this kind of environmental training will have the necessary information, attitudes, and abilities (Jabbour et al., 2010). These will enable them to recognize environmental challenges and take appropriate action at work to improve the environment's performance (Vidal-Salazar et al., 2012). Comparably, assessing workers' environmental performance promotes accountability, integrates behaviors, and emphasizes environmental goals (Govindarajulu and Daily, 2004). This enhances the green performance of businesses (Guerci et al., 2016). Businesses that prioritize employee involvement give employees the chance to put their skills and knowledge to use in environmental activities, adopt green workplace policies (Pinzone et al., 2016), and provide creative solutions for cutting waste and increasing resource efficiency (Florida and Davison, 2001). All of these actions improve the environmental performance of the company in general. Consequently,

H1. GHRM positively influences EP

The Impact of GHRM on EGC

GHRM is defined by Renwick et al. (2013) as HRM policies with an emphasis on environmental management. Through the use of AMO theory and prior research (e.g., Masri and Jaaron, 2017; Pham et al., 2019b), the authors measure GHRM by utilizing three “green” components: employee involvement, performance management, and training. Green performance management refers to a framework for helping workers align their behavior with the company's green goals (Pham et al., 2019b; Govindarajulu and Daily, 2004); green employee involvement seeks to give workers opportunities to get involved in environmental initiatives and activities (Pinzone et al., 2016). Green training is referred to as an environmental policy that gives employees the necessary expertise, abilities, and mindsets (Jabbour et al., 2010). According to Rainieri and Paillé (2016), EGC indicates a sense of environmental commitment and responsibility at work.

According to Katou et al. (2014), employee reactions at work (such as EGC and OCBE) may be a measure of how employees feel about HRM. Although few published research has focused on these interactions in the context of the environment, Perez et al. (2009) found that emphasizing effective environmental management is likely to increase green attitudes for employees who are devoted to
environmental objectives. Employee norms, values, and attitudes must shift as senior management introduces environmental management into the company for them to align with the organization's green objectives and culture (Pinzone et al., 2016). An employee's feelings of attachment, responsibility, and understanding of environmental issues may then grow as a result of this (Jabbour and Santos, 2008). Accordingly, EGC may be stimulated by GHRM (O'Donohue and Torugsa, 2016). Emphasizing the GHRM system (training, employee involvement, performance management), may enhance green-specific achievements like EGC by encouraging information exchange and improving employees' perceptions of GHRM and their capabilities. (Ren et al., 2018; Pham et al., 2019c).

In particular, because environmental training programs assist staff in adopting and embracing green-related mindsets, abilities, and attitudes, their green understanding results in persistent knowledge and dedication (Perron et al., 2006). Giving employees feedback on their green performance, for instance, might help discourage negative attitudes (Jabbour et al., 2010) and promote involvement and environmental responsibility (Govindarajulu and Daily, 2004). In a similar vein, Daily and Huang (2001) contend that EGC is continuously motivated by employee involvement in the environment. To ensure employee commitment to green activities in the workplace, for example, building green collaboration can help employees understand why, what, where when, and how to use environmental practices (Tung et al., 2014). In reality, Pinzone et al.'s (2016) work is among the few that have been published that look into the association between GHRM and EGC. Their results, which demonstrate the positive impacts of GHRM on affective commitment to the environment, strengthen the assertions mentioned above. Furthermore, prior studies on environmental management within the hotel sector have indicated that GHRM Practices, like personnel environmental training initiatives, are included in environmental management (Hsiao et al., 2014; Yen et al., 2013). According to Yen et al. (2013), EGC is significantly impacted by hotels' environmental management. Based on earlier research and the social identity theory, Hypotheses 2 and 3 are stated as follows:

H2. GHRM Positively Influences EGC
H3. EGC Positively Influence EP

The Impact of GHRM on OCBE

Employee discretionary effort is increased by GHRM (Huselid, 1995). According to Van Knippenberg et al. (2007), employees are more likely to work hard for the organization when they believe that their communication with their supervisors or company is of a good caliber. Tsaur and Lin (2004) found that front-line employees' service behavior levels increase in a direct relationship to their perception of HRM practices. They showed how service employees who had a positive attitude towards HRM procedures (such as hiring and training) provided great service to deliver exceptional customer care to hotel clients.

The topic of OCBE has drawn attention in the environmental literature and appears to be a useful strategy for comprehending environmentally responsible behavior in the workplace (Daily et al., 2009; Paillé et al., 2013). "Discretionary acts by employees within the organization that are directed towards environmental improvement but are not rewarded or compulsory” is the definition of OCBE (Daily et al., 2009, p. 246).

Boiral (2009) defines OCBE as voluntary actions taken by employees that support the environmental objectives of the company but go unnoticed. According to Paillé et al. (2014), focusing on environment-oriented HRM after SIT helps to favorably improve OCBE at work. A strong GHRM policy, according to O'Donohue and Torugsa (2016), may influence workers green behavior. In particular, green training gives workers green knowledge and skills, which improves their ability to recognize environmental issues and reduce their negative effects (Govindarajulu and Daily, 2004; Pham et al., 2018). As a result, workers become more conscious of environmental regulations, act more responsibly, and encourage the promotion of environmental values to motivate workers to adopt environmentally friendly practices voluntarily (Boiral, 2009). According to Renwick et al. (2013), green performance management encourages employee participation in environmental events held by the company. Assessing workers' EP fosters voluntary green behavior, increases employees' understanding of environmental tasks and information (Pinzone et al., 2016), and promotes environmental responsibility in the work environment (Chinander, 2001). Comparably, it is believed that employee participation in green initiatives is a personal element that improves workers' ecological behavior (Ramus, 2001) and motivates them to engage and suggest new environmental initiatives (Masri and Jaaron, 2017).

According to Paillé et al. (2014), there is a favorable correlation between employees' OCBE and strategic human resource management, which is the same as green HRM. Empirical research by Pinzone et al. (2016) demonstrates that GHRM is required for promoting OCBE at work. The present study anticipates that GHRM will significantly affect OCBE, as indicated by the aforementioned discussion and synthesis. Consequently, the authors put up the following hypothesis:

H4. GHRM significantly influences OCBE
H5. OCBE significantly influences EP

The Mediating Impact of EGC and OCBE

According to the AMO framework, employee behavior and attitudes, such as organizational citizenship, and commitment, could mediate the effects of GHRM on organizational performance (Katou et al., 2014). Moreover, favorable employee perceptions of
HRM practices lead to a belief that commitment to the organization should be prioritized, which improves OCBE at work (Kehoe and Wright, 2013). According to Ren et al. (2018), an efficient GHRM approach can enhance EP by favorably promoting employee attitudes and behavior toward green activities. Regarding EGC, GHRM techniques (such as training, employee involvement, and performance management) transfer environmental knowledge, skills, and abilities (Jabbour et al., 2010). These techniques also alter employees' beliefs and perspectives concerning the company's green strategy (Pinzone et al., 2016). As a result, this encourages their sense of discretionary commitment to environmental issues or duty. As an outcome, workers take greater responsibility for duties and activities related to the environment that help the company achieve its green goals, improving its EP. This supports the assertions made by Masri and Jaaron (2017) that GHRM practices can assist organizations in advancing EP through EGC.

Podsakoff and MacKenzie (1997) provided an overview of the rationale behind their suggestion that employees' OCBE enhances organizational performance. Workers can assist one another with work-related issues, for example. Workers who take an active role in meetings can aid in spreading knowledge within the organization, and workers who pick up new skills can strengthen the company's capacity to adjust to environmental changes. An empirical investigation of the connection between workers' OCBE and the performance of restaurants was conducted by Walz and Niehoff (2000). They discovered that financial performance, restaurant-quality performance, and client satisfaction are all significantly impacted by employees' OCBE. Using a time series analysis, Kois (2001) discovered that the OCBE of employees in restaurants affects the profitability of the establishment. Furthermore, Nielsen et al. (2009) looked at the connection between OCBE and company performance (such as sales, profitability, and customer satisfaction) by content-analyzing more than 35 research. They observed a positive association between OCBE and company performance.

Except for the Paillé et al. (2014) study, very little empirical research has verified the link between workers' OCBE and EP. Their findings showed that EP is directly influenced by employees' OCBE. According to Daily et al. (2009), worker environmental initiatives like trash reduction should assist businesses in meeting their environmental objectives and improving overall EP. In a similar vein, Roy et al. (2013) emphasized that by enhancing environmental management systems, the impulsive adoption of environmentally friendly behavior can enhance EP.

In the same manner, HRM strategies focused on the environment may encourage employees to engage in voluntary environmental behaviors (Jackson and Seo, 2010). This means that they will be prone to support others in their environmental initiatives and participate in green projects, which will improve EP. According to Paillé et al. (2014), there is a mediator between strategic HRM and green performance which is OCBE. Kim et al. (2019) discovered that OCBE acts as a mediator between GHRM and EP. We believe that GHRM practices such as (training, employee involvement, and performance management) give employees the necessary green knowledge, skills, and capabilities; they also match their environmental behaviors and provide opportunities for them to engage in green workplace activities. Employees are more likely to reciprocate the organization when they feel that they have a favorable exchange relationship with it thanks to these GHRM policies (Kim et al., 2019). This encourages eco-friendly actions from employees, such as reducing energy and water use and recycling waste, which enhances the environmental performance of the company. Furthermore, GHRM can assist workers in recognizing environmental issues as well as the organization's environmental goals and policies. This could lead to a positive shift in personnel's awareness and responsibility for environmental issues (Jabbour and Santos, 2008), increase the number of employees who have pro-environmental attitudes, and prevent unfavorable environmental attitudes (Jabbour et al., 2010). This could therefore promote environmentally conscious behavior (OCBE, for example) (Pinzone et al., 2016). Consequently, OCBE could encourage enhanced EP. Thus, in effect:

H6. EGC mediates the influences of GHRM practices on EP

H7. OCBE mediates the influences of GHRM Practices on EP
Research Methodology

Sample, Procedures, and Questionnaire Design

Our study attempted to examine the relationships between the various factors. Accordingly, a quantitative strategy using random sampling technique to fill the questionnaire which is suitable for this research (Saunders et al., 2009).

We selected respondents who worked in hotels in three big cities of Afghanistan Namely Kabul, Kandahar and Herat. To gather data. Numerous hotels have drawn attention to environmental issues since they frequently have a detrimental effect on the environment (Molina-Azorín et al., 2015). Furthermore, a growing number of travelers are inclined to select eco-friendly accommodations (Robinot and Giannelloni, 2010). Due to this, more hotels are emphasizing environmental conservation and adopting a green strategy, which is beneficial for reputable hotels. As a result, GHRM plays a very crucial role in hotels. Several studies relating to environmental management have found that these kinds of hotels are suitable (Molina-Azorín et al., 2015, for example). Respondents must have worked in hotels for at least six months and have been in charge of or involved with environmental activities there to comprehend the significance of environmental standards and understand the green practices adopted by the organization. Therefore, the personnel who work in different departments including housekeeping, maintenance, food and beverage, front office, and administration (or HR) were selected as managers, assistant managers, or supervisors to collect data.

For the following reasons, the authors relied on managerial staff members as their responses. First of all, they are well-positioned to give us the environmental data we require. Additionally, they actively manage and report environmental problems within the organization, which helps them learn about the environment and understand GHRM and its effects (Tung et al., 2014). Second, it is consistent with earlier GHRM-related publications (e.g., Longoni et al., 2018; Masri and Jaaron, 2017) to use management personnel as responders. Third, data about sustainable practices and environmental management policies were gathered from hotel managerial staff in the hospitality sector (e.g., Yusoff et al., 2018; Molina-Azorín et al., 2015).

A structured questionnaire has been created for data collection via paper and pen surveys. The questionnaire was divided into two sections. Section B contains the study's constructs, whereas Section A contains demographic information about the respondents, including age, gender, and level of education. The final questionnaire was then used for data collection after the appropriate linguistic corrections and alterations were made in response to the suggestions received. The questionnaire was translated to Dari and Pashto and distributed to hotel employees Between August and September of 2023, the structural surveys were translated into Dari and Pashto and sent by paper to respondents. To get their consent, a total of forty hotels were approached initially. A total of 35 hotels were selected with a sample of 350 respondents for the study. 273 valid questionnaires were used with a response rate of (82%) in the final analysis, although some were eliminated due to missing data. Smart-Pls 4 was utilized for data analysis to evaluate the validity and reliability of the measurements, correlation matrix, and structural model, as well as to investigate the direct and indirect impact of GHRM Practices on EP.

Measurement Development

The questionnaire was written in English by the writers, who then translated the text into Pashto and Dari before translating it back into English. A Likert-type scale measuring each item of the GHRM, EGC, OCBE, and EP variables ranged from "strongly disagree (1)" to "strongly agree (5)."
We employed five questions from Nisar et al. (2021) that are used in the hotel industry to evaluate EP. For our study, scales used in the hotel business provide more accuracy. OCBE was employed from the four items in Raineri and Paillé (2016). EGC was also drawn from the five items in Raineri and Paillé (2016). Concerning GHRM measures, we used six items that were used by Kim et al (2019).

Data Analysis

We utilized SmartPLS-4 to apply the SEM method. First, validity and reliability tests were conducted on the instruments. Second, SEM analyses were carried out to verify the suggested hypotheses. In management research, PLS path modeling is a well-researched technique for estimating complex cause-and-effect connection models (Gudergan et al., 2008). Highly complicated simulations, especially those with a lot of constructs, indicators, and structural interactions, can be solved quickly and effectively using PLS-SEM studies (Hair et al., 2014). According to Hair et al. (2014), PLS-SEM is especially useful for testing and developing theories at an early stage and allows for the analysis of links and constructs in complicated structural models. This completely applies to the interaction between GHRM and EP, which has severely constrained the amount of study done in Afghanistan's hotel context. PLS-SEM operates effectively with complex models, doesn't require a big sample size, and makes no assumptions about the distribution of the data (Hair et al., 2014). According to Hair et al. (2014), the recommended sample size for PLS-SEM is ten times the number of arrows pointing at a construct. Because of this, PLS-SEM is especially well suited for the current study.

Results

Respondents’ Profile

This segment addresses the respondents’ demographic characteristics. Participating in this survey were 273 respondents in total. Results show that out of 273 participants, 68.5% (187) were male and 31.5% (86) were female. The majority of the respondents were aged from 26 to 35 years. The survey accounted for 34.1% (93) of individuals in that age group. While 18.3% (50) were of the ages of 18 to 25 years old, 32.6 % (89) individuals were at the age of 36 to 45 and the remaining 15% (41) belonged to the age group of above 45 years.

The findings about the length of service revealed that 31.9% (87) of individuals had less than 5 years of job experience, while the Majority of respondents 44.7% (122) of respondents had between 6 to 15 years of experience, 18.3% (50) individual had between 16-30 years of experience and the remaining 5.1% (14) had more than 30 years of experience in their respective organization.

In terms of education, 34.8% (95) of participants had diplomas, while the majority of respondents 42.1% (115) had bachelor’s degrees, followed by 20.3% (56) with Master’s degrees and the remaining 2.6% (7) had obtained their above master degree. Table 1 represents the demographic profile of the respondents.

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<td>Years of Experience</td>
<td>Less than 5 years</td>
<td>87</td>
<td>31.9</td>
</tr>
<tr>
<td></td>
<td>Between 6 to 15 years</td>
<td>122</td>
<td>44.7</td>
</tr>
<tr>
<td></td>
<td>Between 16 to 30 years</td>
<td>50</td>
<td>18.3</td>
</tr>
<tr>
<td></td>
<td>More than 30 years</td>
<td>14</td>
<td>5.1</td>
</tr>
<tr>
<td>Qualifications</td>
<td>Diploma</td>
<td>95</td>
<td>34.8</td>
</tr>
<tr>
<td></td>
<td>Bachelor’s Degree</td>
<td>115</td>
<td>42.1</td>
</tr>
<tr>
<td></td>
<td>Master’s Degree</td>
<td>56</td>
<td>20.3</td>
</tr>
<tr>
<td></td>
<td>Above</td>
<td>7</td>
<td>2.6</td>
</tr>
</tbody>
</table>

Source: Author

Note: Diploma refers to people with a lower university degree, Above refers to people with Ph.D. or higher

Reliability and Validity Analysis

To determine the validity and reliability of the constructs, the measuring model was evaluated (see Table 2). First, according to Hair, Black, Babin, and Anderson (2010), every item in the model has a factor loading that is more than the minimal allowed value of 0.50.
While factor loading above 0.7 is ideal (Vinzi, Chin, Henseler, & Wang, 2010), studies in the social sciences typically yield weaker outer loadings (<0.70). Generally speaking, items with outer loadings between 0.40 and 0.70 will only be removed if doing so raises the composite reliability or average variance extracted (AVE) above the suggested level (Hair et al., 2016).

The current study few items (GHRM1, GHRM3, GHRM5, EP5, EGC2, EGC4, OCBE2, and OCBE4) were removed due to low outer loadings. Moreover, analysis of the current loadings' confidence interval showed that none of the outer loadings for any of the items included a zero.

Results for composite reliability and Cronbach alpha are shown in Table (2). While CR statistics varied from .791 to .836, Cronbach's alpha ranged from .605 to .702. The reliability statistics for both reliability indicators are greater than the necessary .50 level (Hair, Black, Babin, & Anderson, 2010). Construct reliability is thus proven. Overall, Cronbach's alpha, rho_a, and composite reliability were used to evaluate reliability; statistics for each were higher than the suggested value of .500 (Wasko & Faraj, 2005). According to Sarstedt et al. (2017), the rho_a number returned fell between Cronbach's alpha and composite reliability. It was also found to be over .50, indicating strong reliability (Henseler, Hubona, & Ray, 2016).

Convergence validity is demonstrated when items converge to assess the underlying construct and the AVE value is greater than or equal to .50 (Fornell & Larcker, 1981). Based on the AVE data used in this study, the convergent validity result indicates that all constructs have AVE values of more than .50. Convergent validity is therefore proven and not a problem.

<table>
<thead>
<tr>
<th>Table 2: Convergent Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reflective Constructs</td>
</tr>
<tr>
<td>Green Human Resource Management (GHRM)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Environmental Performance (EP)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Employee Green Commitment (EGC)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Organizational Citizenship Behavior Toward Environment (OCBE)</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Source: Author

Discriminant validity is demonstrated when a construct's square root of AVE is higher than its correlation with all other constructs, as per the (Fornell & Larcker 1981) criterion. In this study, it was discovered that a construct's square root of AVE (bold and italicized) was higher than its connection with other constructs. As a result, discriminant validity is proven (refer to Tables 3 and 4).

<table>
<thead>
<tr>
<th>Table 3: The Measurement Model Fornell &amp; Larcker – Criterion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reflective Constructs</td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td>GHRM</td>
</tr>
<tr>
<td>EP</td>
</tr>
<tr>
<td>OCBE</td>
</tr>
</tbody>
</table>

Source: Author

Note: Bold and Italics represent the square root of AVE

Based on an estimation of the correlation between the constructs, HTMT is utilized. Kline (2011) proposed a threshold of .85 or less, while Teo et al. (2008) suggested a more liberal threshold of .90 or less. The HTMT ratio in the current study is less than the necessary threshold of .90, according to the HTMT result (Table 4). Therefore, the HTMT ratio is used to establish discriminant validity.
Table 4: HTMT Ratio

<table>
<thead>
<tr>
<th></th>
<th>EGC</th>
<th>EP</th>
<th>GHRM</th>
<th>OCBE</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGC</td>
<td>0.896</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EP</td>
<td>0.852</td>
<td>0.884</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GHRM</td>
<td>0.713</td>
<td>0.856</td>
<td>0.597</td>
<td></td>
</tr>
<tr>
<td>OCBE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Author

Hypothesis Testing

The researchers employed a consistent PLS bootstrapping approach, a resampling method for optimally testing path coefficients in a reflective PLS-SEM (Dijkstra and Henseler, 2015). Concerning multicollinearity, it is clear from the maximum values of the inner VIFs (1.418) that were below the 5.0 criterion (Hair et al., 2011) that multicollinearity was not a problem for any of the PLS models with any given set of data. Additionally, the researchers used the standardized root mean square residual (SRMR) as a model fit index for the PLS models based on the model fit. The standardized Root Mean Square Residual (SRMR) value for the sample context (0.060) was less than the criterion (0.08), along with the Root Mean Square Error of Approximation (RMSEA) value in the present research is (0.077), which is less than the (0.08) suggested by Hu and Bentler (1999). These results support the idea that the model effectively fits observing covariance matrices.

Direct Influences

The inspection of the structural path for the evaluation of Path Coefficients (relationships between research constructs) and their statistical importance comes after the measurement model assessment. The direct influence analysis results (refer to Table 5) indicate whether:

H1: GHRM practices have a significant positive impact on EP. According to the results, GHRM significantly and positively affects EP (B=0.298, t=5.27, P<0.001). H1 was therefore accepted, and null refused.

H2: assesses whether GHRM has a positive impact on EGC. According to the results, GHRM significantly and positively affects EGC (B=0.556, t=9.301, P<0.001). H2 was therefore accepted, and null refused.

H3: assesses if EP is positively influenced by EGC. The outcome showed that EGC significantly and positively affects EP (B=0.340, t=5.896, P<0.001). H3 was therefore accepted, and null rejected.

H4: assesses whether GHRM has a positive effect on OCBE. According to the results, GHRM significantly and positively affects OCBE (B=0.362, t=4.715, P<0.001). As a result, the null hypothesis was rejected and H4 was accepted.

H5: assesses whether OCBE has a positive effect on EP. The outcome showed that OCBE significantly and positively affects EP (B=0.288, t=4.831, P<0.001). As a result, H5 was accepted, and the null hypothesis was denied.

Table 5: Direct Relationships

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>B</th>
<th>SE</th>
<th>T</th>
<th>P</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHRM -&gt; EP</td>
<td>0.298</td>
<td>0.057</td>
<td>5.217</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>GHRM -&gt; EGC</td>
<td>0.556</td>
<td>0.060</td>
<td>9.301</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>EGC -&gt; EP</td>
<td>0.340</td>
<td>0.058</td>
<td>5.896</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>GHRM -&gt; OCBE</td>
<td>0.362</td>
<td>0.077</td>
<td>4.715</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>OCBE -&gt; EP</td>
<td>0.288</td>
<td>0.060</td>
<td>4.831</td>
<td>0.000</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Source: Author

Note: B= Beta Coefficient, SE= Standard Error, T= t- Statistics, P= Probability (P) Value * Relationships are significant at P<0.001, GHRM: Green Human Resource Management, EP: Environmental Performance, EGC: Employee Green Behavior, OCBE: Organizational Citizenship Behavior toward Environment

Indirect Influences

The mediating role of EGC in the link between GHRM and EP was evaluated by mediation analysis. The result (see Table 6) revealed a significant indirect effect of GHRM on EP through EGC (H6: B= 0.189, t= 4.958, P<0.001). The total effects of GHRM on EP was significant (B= 0.591, t=12.008, P<0.001), with the inclusion of the mediator the effect of GHRM on EP was still significant (B= 0.298, t=5.217, P<0.001). This shows a Complementary Partial Mediating role of EGC in the relationship between GHRM and EP. Hence, H6 was supported.
An evaluation was conducted on the mediating function of OCBE in the relationship between GHRM practices and EP. The result (see Table 5) revealed a significant indirect effect of GHRM on EP through OCBE (H7: B= 0.104, t= 3.803, P<0.001). The total effects of GHRM on EP was significant (B= 0.591, t=12.008, P<0.001), with the inclusion of the mediator the effect of GHRM on EP was still significant (B= 0.298, t=5.217, P<0.001). This shows a Complementary Partial Mediating role of OCBE in the relationship between GHRM and EP. Hence, H7 was supported.

Table 6: Indirect relationships

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>B</th>
<th>SE</th>
<th>T</th>
<th>P</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHRM -&gt; EGC -&gt; EP</td>
<td>0.189</td>
<td>0.038</td>
<td>4.958</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>GHRM -&gt; OCBE -&gt; EP</td>
<td>0.104</td>
<td>0.027</td>
<td>3.803</td>
<td>0.000</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Source: Author

Note: Note: B= Beta Coefficient, SE= Standard Error, T= t-Statistics, P= Probability (P) Value * Relationships are significant at P<0.001

Findings and Discussions

This research examines the relationship between hotel GHRM and environmental performance via the perspective of employees' environmental commitment and organizational citizenship behavior. According to hotel settings, the researchers used a PLS-SEM approach to obtain the results.

As expected, the findings showed that hotel employee perspectives on GHRM at their workplaces generally improved their commitment to their companies, their OCBE behaviors, and the properties' EP. The results supporting GHRM's positive impact on EGC, OCBE, and Hotel EP aligned with those of earlier researchers (López-Gamero et al., 2009; Paillé et al., 2013). Paillé et al. (2013) discovered, for instance, that environmental management techniques had a favorable effect on organizational commitment. They examined environmental management practices (such as publishing environmental policies and annual environmental reports) widely in their study. Since HRM is generally a crucial tool for accomplishing organizational goals through employee participation, the present research focuses on GHRM, a particular component of environmental management (de la Cruz Déniz-Déniz and Saá-Pérez, 2003; Domínguez-Falcón et al., 2016).

This study contributes to the literature by examining the significance of EGC and OCBE between GHRM and EP, based on AMO and social identity theory. There has been little research in the environmental literature on the role of EGC as a behavior mediator between GHRM and EP. Nevertheless, as an outcome variable of organizational commitment, employee behavior was not taken into account in the studies. The current study suggests that individual employees' behavior is determined by organizational commitment. Based on results showed that the hotel workforce's high green commitment results in active OCBE behaviors, which improve the properties' EP. These results corroborate the claims made by earlier research (Carmeli, 2005; Liden et al., 2003) about the theory that EGC is a critical component that facilitates the development of constructive behavior devoted to organizational goals. The study found the important mediating roles that EGC and OCBE play between GHRM and Hotel EP. The results showed that a significant
mediation impact of EGC and OCBE underlines the observed link between GHRM and HEP after breaking down the overall effects of GHRM on HEP. The social identity perspective has a significant impact on employees' environmentally conscious behavior, as this study further demonstrates. When an organization's environmental goals are aligned with its values, employees are motivated to take action to achieve those goals. Furthermore, this study offers empirical support for the claim that the collective EP of a corporation is improved by the environmental actions of its employees (Daily et al., 2009).

The findings of the study align with the proposal presented by Kim et al. (2019), according to which the implementation of GHRM and the mediating role played by employees' voluntary green behavior determine a hotel's green performance. Furthermore, according to Ren et al. (2018) and Pham et al. (2019), a successful green strategy may encourage eco-friendly attitudes and behaviors (such as EGC and OCBE), which would enhance hotel EP. While employee participation is also proposed as a mediating factor, this analysis supports previous research that suggests OCBE be viewed as a critical point in unlocking and mediating links across GHRM practices and EP (Ren et al., 2018).

Furthermore, the result showed to be aligned with the recommendations of a few other studies (e.g., Bos-Nehles et al., 2013) that have used the AMO paradigm to investigate the HRM-performance relationship generally. Green performance management is often not thought to be an essential instrument for directly driving EP and stimulating EGC and OCBE. Our findings are inconsistent with certain published research that demonstrates the practice's substantial contribution to environmentally conscious behavior and a company's environmental efficacy. Because an individual's perceptions of an organization's green climate/culture and green strategy may influence their commitment to and behaviors related to the environment, which is neither mandated nor rewarded by the organization (Saied et al., 2019). Green policies, therefore, may be preferred to green practices that concentrate on employee green performance evaluation because they encourage employees to take an active part in environmental activities in the workplace (e.g., by creating green opportunities for them to be involved in joint consultation for solving environmental issues).

**Conclusions**

A growing number of academics and industry professionals have realized that one of the major duties of hospitality organizations is to have sustainable management, which includes environmental conservation (Hsiao et al., 2014; Rahman et al., 2012; Yen et al., 2013). Before making additional functional attempts in environmental management, hospitality organizations should offer GHRM to fulfill this obligation. The results show that hotel organizations must implement relevant GHRM because doing so helps employees feel proud of their organizations' contributions to environmental protection. This not only strengthens employees' loyalty to their employers but also promotes environmentally friendly behavior, which leads to successful EP for hotel organizations. To be more precise, whether or not the hotel property holds green certificates, hotel organizations should prioritize GHRM.

The contributions of previous research from a green setting are expanded upon in this work by application of AMO and SIT theory. Previous studies (Saied et al., 2019; Masri and Jaaron, 2017) have focused on the direct relationships between GHRM and green behavior and green performance. Only a limited number of studies have looked into the indirect effects using two mediator factors. Our findings, which indicate that OCBE acts as a primary mediator in the significant and positive interaction between GHRM and the success of environmental management, add to the body of research already in existence and provide more insight into these linkages. Also, the study indicated the significant and positive mediating role of EGC between GHRM and EP. With results the rejection of null hypothesis.

By using the mediation model, this study explored a thorough framework for analyzing the relationship between GHRM and EP from a green perspective. This framework helps to identify the mediating roles of specific green behaviors and attitudes, like EGC and OCBE. The perception that GHRM is essential for immediately improving EGC, OCBE, and EP is the second significant exploration. A few earlier studies (Pinzone et al., 2016) have addressed this and provided insight into the body of literature already in existence.

Employers of hotels may find it crucial to select staff members who share their commitment to environmental conservation. Therefore, hiring managers and HR professionals should think about how to find and choose workers who value environmental conservation. HR professionals can lead by expressing their company's environmental values in the job description and assessing candidates' values throughout the interview process by asking situational questions about environmental protection. Additionally, human resources professionals should offer their workers environmental knowledge and training courses. This will help employees comprehend the hotel's environmental policies and raise their awareness of the value of environmental preservation. In summary, hotel managers could use additional, tailored support or financial incentives to encourage employees to participate in recommended eco-friendly behaviors.

The current study has some limitations, but those shortcomings can open up new areas for future investigation. First, because the predictor (GHRM) and criterion variable (EP) were self-rated by the same respondents, the common technique has an impact on the study's conclusions. To reduce the possibility of common method bias, Bou-Llusar et al. (2016) advise researchers to collect predictor and criteria variables from several raters or sources. Future research should look into gathering information about employees' eco-friendly behavior from peers or superiors.

Second, data from Afghanistan, a southern nation, was gathered for this study. Therefore, researchers should exercise caution when interpreting the results. Since cultural differences are not the focus of this study, it will be up to future research conducted in various
cultural contexts to determine whether the findings are culturally unique. Other elements as workplace drivers of EGC and OCBE must be included for future studies to be most informative. Furthermore, as supervisors can assist individual employees in understanding a vision of long-term sustainable environmental management, the authors recommend that future studies incorporate additional organizational characteristics, such as supervisory support behaviors (Egri and Herman, 2000).

This research is the first to look into these issues in the developing economy of Afghanistan. Therefore, more research carried out in a developed nation would be welcomed to acquire a deeper knowledge of these challenges. Ultimately, the results provide fresh perspectives on how GHRM is applied and what part it plays in the hospitality sector. It would always be fascinating to confirm similar findings in other industries, even if the research was set up to guarantee the generalizability of the findings.

Our study contributes to the research gap in the hotel sector by deepening our understanding of GHRM and its significance, which has not been well explored. Therefore, future researchers should focus on earning and our results offer a theoretical contribution that highlights the use of the SIT and AMO theories in examining the previously indicated linkages. A better comprehension of how to apply contemporary green practices in hotels is also necessary for enhancing the outcomes and conclusions.

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All authors have read and agreed to the published version of the manuscript.

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Data Availability Statement: The data presented in this study are available on request from the corresponding author. The data are not publicly available due to restrictions.

Conflicts of Interest: The authors declare no conflict of interest.

References


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