

## RESEARCH ARTICLE

# Catalyzing green innovation in hotel and tourism businesses: Leveraging green talent management, green organizational citizenship behavior, and green values

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## ABSTRACT

Global corporations are grappling with a significant challenge in addressing the absence of green innovation. Therefore, this study presents a conceptual model that reveals the significant role of green talent management in fostering green innovation. The study strives to analyze the mediating effect of green organizational citizenship behavior on the impact of green talent management on green innovation. Additionally, the study tests the moderating role of green values on the relationship between green talent management and green organizational citizenship behavior and between green organizational citizenship behavior and green innovation. Data were collected from 330 employees at the middle-level management working at five-star hotels and travel agencies category-A operating in Egypt to test the proposed conceptual model using structural equation modeling. Findings show that GTM positively affects GI and GOCB. GOCB positively impacts GI. In addition, GV positively moderates GTM → GOCB and GOCB → GI relationships. Moreover, GOCB significantly mediates the GTM → GI relationship. Based on our research, useful guidelines for how GTM, GOCB, and GV could affect green innovation have been developed.

**Keywords:** green innovation; green talent management; green organizational citizenship behavior; green values; hotel and tourism businesses

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## 1. Introduction

Rapid economic development raises environmental concerns, including loss of natural resources, climate change, and pollution from the hotel and tourism industry. Environmental sustainability is crucial for economic and social development, attracting public attention to green issues like conversion, recycling, and

renewable energy sources, driven by corporate, stakeholder, and environmental rules pressure<sup>[1]</sup>. Green innovation is a strategy aimed at increasing popularity and achieving environmental objectives. Green innovation practices are increasingly important globally, particularly for researchers and business managers<sup>[2]</sup>.

Hospitality and tourism service providers utilize various tangible, intangible, technological, and non-technological assets to provide their services. Innovation in hospitality and tourism combines these domains, leading to enhanced programs and services<sup>[3,4]</sup>. The sector is increasingly embracing sustainable or environmentally friendly establishments, focusing on eco-innovations that reduce environmental harms<sup>[5-7]</sup>.

Academics and professionals are focusing on organizational performance sustainability due to the dynamism and competitive global market<sup>[8-11]</sup>. Innovation is crucial for organizations to survive. However, the determinants of innovation in employees are unclear, necessitating further research on mechanisms and interactions with other factors, particularly green talent management<sup>[12]</sup>.

Organizational leaders face challenges in developing and retaining talented staff for sustainability<sup>[13]</sup>. Gardas et al.<sup>[14]</sup> highlighted the need for talent management to adapt to the environmental sustainability context and focus on green human capital development programs (green TM). Green TM involves systematically attracting, nurturing, and retaining talent with green-centered skills and values, promoting green initiatives and innovative work behavior in organizations<sup>[15]</sup>.

In addition, green organizational citizenship behavior (GOCB), including individual and discretionary behaviors, contributes to environmental efficiency and innovation, essential for hotel and tourism enterprises to remain competitive in the evolving business landscape<sup>[13]</sup>. Green OCB is crucial for companies' green development strategies, improving efficiency and contributing to environmental sustainability. GOCB is spontaneous social behaviors that enhance organizational environmental management effectiveness<sup>[2]</sup>. Individual environmental awareness, organizational environment, and leadership style significantly impact OCB<sup>[16]</sup>, but research on GOCB's impact on green innovation is limited.

Moreover, the literature extensively explores generic TM practices<sup>[17-19]</sup>, but the impact of green TM on green innovation, particularly in hospitality enterprises, is not thoroughly investigated, providing insights into how green TM, GOCB, and GV can predict green innovation. Few studies explore the direct relationship between green talent management and green innovation<sup>[12]</sup>, limiting hospitality organizations' understanding and adoption of green talent management strategies to innovate green services in response to market and societal expectations. In addition, studies haven't reached a clear consensus on the impact of TM and green TM on employees. Some find positive effects on innovation, while others suggest green TM might lead to negative outcomes<sup>[20,21]</sup>.

Consequently, the current study aims to explore the impact of green talent management on green innovation, investigate the mediating role of green organizational citizenship behavior on the relationship between green talent management and green innovation, and examine the moderating role of green values on the relationships between green talent management and green organizational citizenship behavior and between green organizational citizenship behavior and green innovation.

Overall, this study highlights the significance of green talent management, green organizational citizenship behavior, and green values in influencing employee behavior. It paves the way for further discussion on how these concepts can be nurtured or incorporated into workplaces to promote environmentally responsible practices. Green talent management, green organizational citizenship behavior, and green innovation are all crucial aspects of a successful sustainability strategy. By fostering a green workforce and encouraging green organizational citizenship behavior, companies can drive green innovation and achieve long-term environmental benefits.

## **2. Literature review**

### **2.1. Green talent management (GTM)**

Traditional talent management (TM) needs to adapt to the growing importance of environmental sustainability<sup>[12]</sup>. Green TM represents a shift in talent management practices to address the growing significance of environmental sustainability in today's business landscape. Green talent management is a humanistic approach that promotes the development and retention of environmentally friendly talent by integrating environmentally friendly practices into recruitment, training, and employee engagement<sup>[14]</sup>. It aligns organizational goals with sustainability and corporate social responsibility, fostering a culture of sustainability and improved performance<sup>[12]</sup>. Green TM aims to develop a workforce with the skills and values necessary to drive "green initiatives" within an organization. This includes attracting, nurturing, and retaining employees who prioritize environmental responsibility<sup>[14]</sup>. It's a systematic approach to ensure the right talent is available to support an organization's sustainability efforts<sup>[14,15]</sup>. It aims to promote innovative work behaviors (IWB) that contribute to the organization's environmental goals.

### **2.2. Green innovation (GI)**

Green innovation (GI) is crucial for businesses to increase market share and maintain long-term survival. It improves market position, attracts customers, and offers green services, gaining a competitive advantage. Green innovation, or eco-innovation, is a process aimed at creating new production and technologies to reduce environmental risks like pollution and negative consequences of resource exploitation<sup>[22]</sup>. Green innovations aim to design products that are more efficient and require less energy and raw materials during production. These innovations not only consider the production phase but also how the product affects the environment during its use. Green design takes the entire life cycle of a product into account, ensuring it can be easily recycled at the end of its useful life. By focusing on these aspects, green innovation can be a powerful tool for businesses to address sustainability challenges and contribute to positive social and environmental outcomes<sup>[23]</sup>.

### **2.3. Green organizational citizenship behavior (GOCB)**

Green OCB is voluntary environmental conservation and sustainable development, without formal rewards for additional volunteer efforts<sup>[24]</sup>. GOCB is about employees going above and beyond their job descriptions to contribute to the environmental well-being of their organization. These are actions that employees choose to do, not because they're required by their job description. Specifically, the behaviors target reducing the organization's environmental impact and promoting sustainability. There's no formal reward system in place for these actions. Employees are intrinsically motivated by a desire to help the environment.

### **2.4. Green values (GV)**

Green values refer to the perceived importance of ecological sustainability<sup>[25]</sup>. Green values are considered crucial in shaping employee environmental behaviors<sup>[26]</sup>; it push them to consider how much they value maintaining a healthy environment for the long term. This indicates the employee's willingness to act on those values and engage in behaviors that benefit the environment. Existing research demonstrate a strong link between individual green values and actual green behaviors<sup>[27,28]</sup>. This suggests that people who value sustainability and are motivated to protect the environment are more likely to engage in environmentally friendly actions<sup>[16,29]</sup>.

### **3. Hypotheses development**

#### **3.1. Green talent management and green innovation**

Green talent management and green innovation are two sides of the same coin, driving each other forward in the quest for sustainability. Green talent management (GTM) focuses on attracting and retaining employees with the knowledge and skills to develop and implement green initiatives<sup>[30]</sup>. GTM also cultivates a culture that prioritizes environmental responsibility. Employees who share these values are more likely to be innovative in finding sustainable solutions<sup>[31]</sup>. In addition, GTM practices like training and recognition programs keep employees engaged with green goals. When empowered to suggest ideas, employees can contribute valuable innovations<sup>[32]</sup>. Nwosu and Ward<sup>[33]</sup> offer a more optimistic view regarding the impact of Green TM on employees. They suggest the values promoted by green TM, like environmental responsibility; can actually increase employee satisfaction, commitment, and engagement with innovative work. Similarly, Widodo and Mawarto<sup>[19]</sup> argued that there is a direct link between TM and innovative behavior; effective TM likely inspires employees and encourages them to think outside the box. Consequently, the following hypothesis is formulated:

H1: Green talent management positively impacts green innovation.

#### **3.2. Green talent management and green organizational citizenship behavior**

Talent management practices, including development opportunities and competitive compensation, enhance employee engagement, leading to more motivated and committed employees who exhibit exceptional behavior<sup>[34]</sup>, for example, OCB. When employees feel their skills and contributions are recognized and nurtured through talent management programs<sup>[35]</sup>, they're more likely to reciprocate by putting in extra effort and helping colleagues (OCB). In addition, effective talent management practices that align with the psychological contract between employees and employers can foster a sense of obligation and loyalty<sup>[36]</sup>, thus motivating OCB.

Green talent management and green organizational citizenship behavior are crucial strategies for businesses to operate sustainably and engage their workforce. GTM allows organizations to attract employees with a green mindset. When a company hires and develops employees who care about the environment, they're more likely to exhibit green behaviors on their own<sup>[37]</sup>. GTM practices foster a supportive green culture. GTM practices, including training and green performance management, foster a culture that values environmental responsibility, motivating employees to go above and beyond<sup>[38]</sup>. Consequently, the following hypothesis is formulated:

H2: Green talent management positively impacts green organizational citizenship behavior.

#### **3.3. Green organizational citizenship behavior and green innovation**

GOCB acts as a powerful booster for companies' green initiatives. Employees who go beyond the minimum in terms of environmental practices (e.g., turning off lights, reducing printing) contribute to a more streamlined and resource-efficient operation. When employees actively participate in and suggest ideas for green programs, it fosters a culture of environmental responsibility<sup>[39]</sup>. This can lead to better implementation and innovation in green management practices. In addition, green OCB fosters a sense of purpose and environmental commitment among employees. This translates to long-term employee engagement with sustainability goals, leading to a more lasting positive impact<sup>[16,40]</sup>. Consequently, the following hypothesis is formulated:

H3: Green organizational citizenship behavior positively impacts green innovation.

### **3.4. Green organizational citizenship behavior as a mediator between GTM-GI**

Strong GTM practices increase the prevalence of GOCB, which in turn fuels green innovation within the organization. GTM promotes an environment-conscious culture, thereby encouraging employees to participate in GOCB. Green skills and knowledge empower employees to take initiative and contribute to innovation<sup>[12]</sup>. GOCB translates into creative problem-solving and the development of new ideas for sustainable practices and products<sup>[41]</sup>. GTM fosters a green workforce by attracting and retaining environmentally conscious employees, laying the foundation for green OCB<sup>[14,42]</sup>. Green OCB drives innovation by encouraging employees to actively engage in green behaviors, which can generate a pool of ideas that can spark green innovation<sup>[43]</sup>. Overall, green organizational citizenship behavior acts as a bridge connecting green talent management with successful green innovation. Consequently, the following hypothesis is formulated:

H4: Green organizational citizenship behavior positively mediates the GTM-GI relationship.

### **3.5. Green values as a moderator between GTM-GOCB and GOCB-GI**

Contemporary values literature emphasizes the significance of individual values in explaining attitudes and behavior<sup>[28]</sup>. Scholars suggest that shared, congruent values lead to optimal employee outcomes<sup>[44]</sup>. Promoting a green culture that aligns with employees' values, beliefs, and behaviors increases the likelihood of exhibiting G-OCB. Green values evolve over time, shaping the organization's culture<sup>[45]</sup>. Stronger green values increase the likelihood of voluntary green behaviors<sup>[41]</sup>. When employees share the organization's values, they're more likely to be committed and achieve goals<sup>[46]</sup>. When a company promotes a green culture that aligns with employee values, they're more likely to exhibit GOCB (voluntary pro-environmental behaviors). Over time, green values and behaviors become ingrained in the organizational culture, shaping employee habits. A strong emphasis on environmental responsibility within the culture leads employees to adopt eco-friendly behaviors<sup>[41,45]</sup>. In simpler terms, employees who feel their company prioritizes environmental responsibility and aligns with their own values are more likely to go the extra mile for the environment through actions like reducing waste, conserving resources, or suggesting sustainable practices. This creates a positive cycle where the green culture reinforces green employee behavior.

Moreover, Rupp et al.<sup>[47]</sup> suggest that employees' judgments about their organization's socially responsible policies and behavior determine their psychological needs fulfillment. The supplies-values fit theory<sup>[48]</sup>, suggesting that if an organization aligns with employees' green values, they are more likely to exhibit green workplace behaviors. On the other hand, if employees' values conflict with the organizations or the organization doesn't provide a suitable environment, they may be less likely to exhibit green behavior in the workplace<sup>[28]</sup>. Specifically, the interaction between individual and organizational green values significantly influences employee workplace green behavior<sup>[28]</sup>. Consequently, the following hypotheses are formulated:

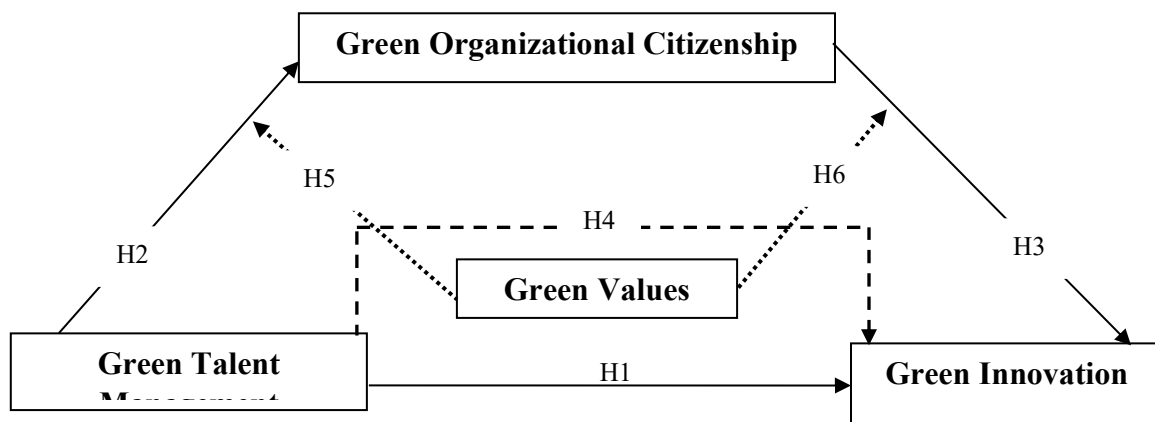
H5: Green values positively moderator the relationship between GTM and GOCB.

H6: Green values positively moderator the relationship between GOCB and GI.

To sum up, by reviewing the literature on generic talent management, it appeared that it is extensive and encompasses various practices and strategies that organizations can employ to attract, develop, and retain their most valuable employees. Previous literature focused on generic TM practices such as talent acquisition, performance management, learning and development, succession planning, and competitive compensation to attract and retain top talent. It also can be noted that, the principles of TM are widely recognized, but their application can vary significantly across different industries and organizations. Therefore, industry-specific

studies are needed to examine the growing importance of TM in general and the green context in particular in the hospitality and tourism industry<sup>[49]</sup>. In addition, while the relationship between green talent management and green innovation has been explored in some industries, the specific context of hospitality enterprises requires further investigation. This is likely due to the unique characteristics of the hospitality sector, such as its reliance on human capital for delivering services, its strong customer-facing orientation, and the potential for significant environmental impacts. The hospitality industry also faces challenges in implementing green practices, including balancing sustainability with economic viability and customer satisfaction, potentially limiting green talent management's focus on innovation. Gathering data on green talent management practices and their impact on green innovation in hospitality enterprises can be challenging due to the diversity of organizations within the sector and the difficulty in measuring intangible outcomes.

**Figure 1** below shows the conceptual framework of the study.



**Figure 1.:** The conceptual framework of the study.

*Source: Created by authors*

## 4. Methodology

### 4.1. Measures

This study is a quantitative research utilizing survey methodology. The study utilized 34 items to assess four key concepts: green talent management, green innovation, green organizational citizenship behavior, and green values. All scale items were derived from prior literature. The assessment was conducted using a Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

The study assessed green talent management using 14 items adapted from<sup>[13]</sup>. For example, “My organization cares about my well-being and offers considerable support for my welfare when executing green-centered initiatives” and “My organization offers green training, workshop opportunities, coaching, and courses that advance my knowledge on how to foster environmental sustainability”. In addition, a nine-item scale adapted from Wang<sup>[50]</sup> was used to measure green innovation. For instance, “Our firm uses recycled, reused, or remanufactured materials” and “Our firm uses cleaner technology to make savings and prevent pollution (such as energy, water, and waste)”. Furthermore, the study assessed green organizational citizenship behavior using seven items adapted from Pham et al.<sup>[51]</sup>. Sample items include “I suggest new practices that could improve the organization's environmental performance” and “I encourage my colleagues to adopt more environmentally conscious behaviors”. Moreover, a four-item scale adapted from Dumont et al.<sup>[28]</sup> and Chou<sup>[27]</sup> was used to measure green values. Sample items include “I feel obliged to do whatever I

can to prevent environmental degradation” and “I feel obliged to bear the environment and nature in mind in my daily behavior”. The detailed measurement scales outlined in Appendix (A).

## **4.2. Sample**

The study focuses on all employees of Egypt's tourism and hospitality businesses, including travel agencies category-A and five-star hotels. The two business types were chosen due to their dominance in Egypt's hospitality and tourism sectors and shared characteristics. Both cater to foreign visitors and strive to provide top-notch services; therefore, they are committed to adopting various green practices to enhance their services and prioritize environmental preservation globally. In 2022, the Egyptian Ministry of Tourism and Antiquities listed 1666 category-A travel agencies and 30 five-star hotels in the Greater Cairo region. Due to limited resources and the distribution of five-star hotels and travel agencies throughout Egypt, the study selected five-star hotels and category-A travel agencies using a judgmental sample approach, while data was collected from volunteered participants in Egypt's Greater Cairo region using a convenience sample approach. On one side, judgmental sample approach was used because this method allows researchers to select participants based on their perceived expertise or knowledge in the field. In the case of green talent management, the current study has chosen hospitality executives "the middle-level management" with a strong background in sustainability. On the other side, convenience sampling approach was also used because this method is used when it's difficult or time-consuming to obtain a random sample. It allows researchers to quickly recruit participants who are readily available, such as employees from nearby hospitality organizations. Convenience sampling can also be useful for conducting preliminary research to identify key themes and potential research questions before conducting a more rigorous study. Middle-level management at hotels and travel agencies under investigation received 600 questionnaires. Middle-level management is selected to be investigated because they assist in strategy formulation, support innovative product idea development, and filter ideas from the bottom up to the CEO and top managers<sup>[52]</sup>. Out of the 600 questionnaires distributed, 330 were valid, resulting in a 55% response rate.

## **4.3. Non-response bias**

By comparing the responses of those who responded early to the survey with those who responded later, the study revealed no significant difference between early and late surveys using t-tests ( $p > 0.05$ ), indicating no non-response bias issues.

## **4.4. Common method biases**

The study used Harman's single-factor test and principal component analysis to assess common method variance (CMV), finding no dominant factor contributing to over 50% of overall variation. In simpler terms, the test results show that there's no single "bias" factor overwhelming the data. The variation is attributable to the different factors the study is trying to measure, indicating that CMV is likely not a major concern in this study.

## **4.5. Multi-group analysis**

This is a statistical technique used to compare models across different groups. In this case, the researchers compared the path coefficients (relationships between variables) in a model for hotels and travel agencies. The multi-group analysis didn't reveal substantial differences in the model's path coefficients between hotels and travel agencies ( $P > 0.05$ ).

#### 4.6. Participants’ profile

The study involved 330 participants, with 214 (64.8%) being men and 116 (35.2%) being women. 59 (17.9%) aged 20-<35, 206 (62.4%) aged 35-45, and 65 (19.7%) aged 45+. The study involved participants with at least two years of job experience.

#### 4.7. Data analysis

The study utilized WarpPLS software 7.0 to analyze the proposed model and validate hypotheses using the PLS-SEM technique. The study evaluated convergent and discriminant validity using average variance extracted, composite reliability, and Fornell-Larcker criteria. In addition, no significant difference was found between early and late survey waves, and common method variance was not a significant concern.

### 5. Results

#### 5.1. Measurement model

Confirmatory factor analysis was utilized to evaluate the study's proposed four-factor model, which comprises green talent management (GTM), green innovation (GI), green organizational citizenship behavior (GOCB), and green value (GV). Kock<sup>[53]</sup> developed fifteen fit indices to assess the model's fit: APC “P<0.05”, ARS “P<0.05”, AARS “P<0.05”, AVIF “acceptable if ≤5, ideally ≤3.3”, AFVIF “acceptable if ≤5, ideally ≤3.3”, GoF “small ≥0.1, medium ≥0.25, large ≥ 0.36”, SPR “acceptable if ≥ 0.7, ideally =1”, RSCR “acceptable if ≥ 0.9, ideally = 1”, SSR “acceptable if ≥0.7”, NLBCDR “acceptable if ≥0.7”, SRMR “acceptable if ≤0.1”, SMAR “acceptable if ≤0.1”, SChS “P<0.05”, STDCR “acceptable if ≥0.7, ideally = 1”, and STDSR “acceptable if ≥0.7, ideally = 1”. The proposed four-factor model provided well-fitting data: “APC=0.399, P<0.001; ARS=0.525, P<0.001; AARS=0.522, P<0.001; AVIF=1.494; AFVIF=2.200; GoF=0.564; SPR=1.000; RSCR=1.000; SSR=1.000; NLBCDR=0.750; SRMR=0.118; SMAR=0.089; SChS=22.929, P<0.001; STDCR=0.934; and STDSR=0.794”.

**Table 1** shows that the four research constructs had composite reliability ratings that exceeded the acceptable threshold (CR>0.70) and substantial item loadings (>0.60, p<0.05). Green talent management, green innovation, green organizational citizenship behavior, and green value all achieved AVE>0.50, supporting convergent validity. The VIF of every latent variable in the model is ≤3.3, indicating the absence of common method bias.

**Table 1.** Item loadings, cronbach alpha, CR, AVE, and VIFs

Construct	Indicators	Loading	CR	CA	AVE	VIF
Green talent management (GTM)	GTM.1	0.623	0.941	0.932	0.537	2.771
	GTM.2	0.567				
	GTM.3	0.591				
	GTM.4	0.654				
	GTM.5	0.647				
	GTM.6	0.729				
	GTM.7	0.803				
	GTM.8	0.835				
	GTM.9	0.753				
	GTM.10	0.789				
	GTM.11	0.820				
	GTM.12	0.839				
	GTM.13	0.720				



Construct	Indicators	Loading	CR	CA	AVE	VIF
Green Innovation (GI)	GTM.14	0.813				
	GI.1	0.704				
	GI.2	0.694				
	GI.3	0.705				
	GI.4	0.697				
	GI.5	0.754	0.865	0.824	0.504	2.389
	GI.6	0.702				
	GI.7	0.712				
	GI.8	0.727				
	GI.9	0.696				
Green organizational citizenship behavior (GOCB)	GOCB.1	0.749				
	GOCB.2	0.726				
	GOCB.3	0.733				
	GOCB.4	0.687	0.860	0.809	0.513	2.216
	GOCB.5	0.674				
	GOCB.6	0.724				
	GOCB.7	0.718				
Green Value (GV)	GV.1	0.730				
	GV.2	0.813				
	GV.3	0.818	0.860	0.783	0.607	2.427
	GV.4	0.751				

“CR: Composite reliability; CA: Cronbach's alpha; AVE: average variance extracted; VIF: variance inflation factors “.

**Table 1.** (Continued)

*Source:* Created by authors

The constructs' discriminant validity was confirmed through the AVE square root that was greater than off-diagonal correlations (see **Table 2**) and through HTMT computation that is <0.85 (see **Table 3**).

**Table 2.** Discriminant validity results - fornell-larcker criterion

	GI	GOCB	GTM	GV
Green Innovation (GI)	<b>0.664</b>	0.664	0.628	0.544
Green organizational citizenship behavior (GOCB)	0.646	<b>0.684</b>	0.632	0.621
Green talent management (GTM)	0.628	0.632	<b>0.733</b>	0.741
Green Value (GV)	0.544	0.621	0.741	<b>0.779</b>

“Off-diagonal elements are correlations, and diagonal elements are square roots of AVE”

*Source:* Created by authors

**Table 3.** HTMT for validity

HTMT ratios (good if < 0.90, best if < 0.85)	GI	GOCB	GTM	GV
Green Innovation (GI)				
Green organizational citizenship behavior (GOCB)	0.814			

Green talent management (GTM)	0.725	0.740		
Green Value (GV)	0.681	0.783	0.808	
<b>P values (one-tailed) for HTMT ratios (good if &lt; 0.05)</b>	<b>GI</b>	<b>GOCB</b>	<b>GTM</b>	<b>GV</b>
Green Innovation (GI)				
Green organizational citizenship behavior (GOCB)	<0.001			
Green talent management (GTM)	<0.001	<0.001		
Green Value (GV)	<0.001	<0.001	<0.001	

Table 3. (Continued)

Source: Created by authors

### 5.2. Results of testing hypotheses

Data presented in Figure 2 and Table 4 show that green talent management (GTM) positively affects green innovation (GI) ( $\beta=0.42$ ,  $P<0.01$ ) and green organizational citizenship behavior (GOCB) ( $\beta=0.63$ ,  $P<0.01$ ). The study indicates that GTM leads to an increase in GI and GOCB, thereby supporting hypotheses H1 and H2. In addition, GOCB positively impacts GI ( $\beta=0.37$ ,  $P<0.01$ ); GOCB increases GI, supporting H3. In addition, green value (GV) positively moderates GTM→GOCB ( $\beta=0.13$ ,  $P<0.01$ ) and GOCB→GI ( $\beta=0.11$ ,  $P=0.02$ ) relationships. This means GV strengthens GTM→GOCB and GOCB→GI relationships, thus supporting hypothesis H5 and H6.

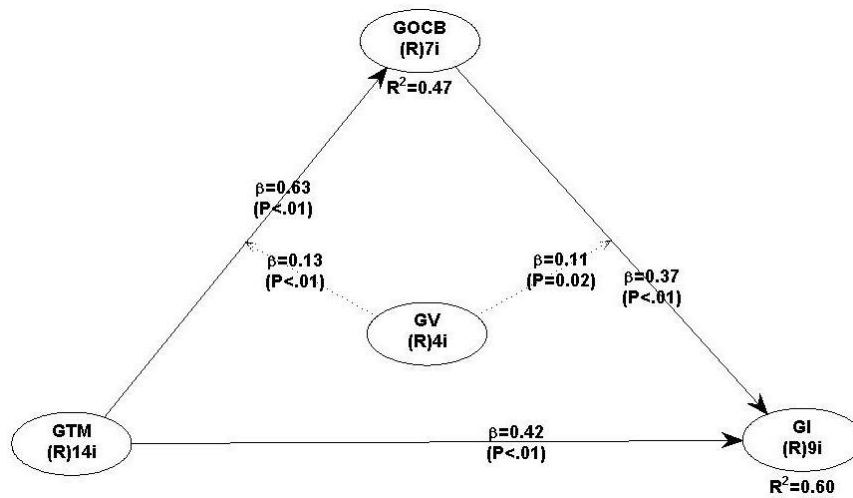


Figure 2: final model of the study

Source: Created by authors

Table 4 Direct effects.

Hs	Relationship	Direct effect ( $\beta$ )	Sig.	T	Decision
H1	GTM → GI	0.42	P<0.01	8.034	Supported
H2	GTM → GOCB	0.63	P<0.01	12.526	Supported
H3	GOCB → GI	0.37	P<0.01	7.177	Supported
H5	GTM*GV → GOCB	0.13	P<0.01	2.455	Supported
H6	GOCB*GV → GI	0.11	P=0.02	2.104	Supported

Source: Created by authors

Moreover, the Preacher and Hayes<sup>[54]</sup> technique was utilized to compute the mediation effects of GOCB in the GTM→GI relationship. **Table 5** shows that the indirect impact of GOCB, with a 95% bootstrapped confidence interval (LL, UL), does not pass zero in-between, supporting mediation. Consequently, the study supported the H4 by revealing that GOCB significantly mediates the GTM→GI relationship.

**Table 5.** Mediation analysis' bootstrapped confidence interval

Hypo.	Path a	Path b	Indirect Effect	SE	t-value	Bootstrapped Confidence Interval		Mediation	
						95% LL	95% UL		
H4	GTM→GOCB→GI	0.630	0.370	0.233	0.037	6.300	0.161	0.306	Yes

*Source: Created by authors*

## 6. Discussion

This study investigates the impact of green talent management (GTM) on green innovation (GI) in the hotel and tourism sector, focusing on green organizational citizenship behavior (GOCB) as a mediator and green values (GV) as a moderator. A literature-based theoretical model was developed and empirically tested. The study's six hypotheses (H1, H2, H3, H4, H5, and H6) were supported by the findings. The study indicates that GTM positively impacts GI (H1), aligning with Widodo and Mawarto's<sup>[19]</sup> argument that TM is directly linked to innovative behavior. Tracking the impact of talent management on innovation helps organizations refine their strategies and ensure they're attracting and retaining the right talent<sup>[55]</sup>. Green talent management identifies and develops the specific skills needed for green innovation. This could involve training in areas like life cycle assessment that keep employees engaged with green goals<sup>[56]</sup>. Green talent management practices champion green initiatives and provide resources for innovation inspire employees and unlock their creative potential<sup>[12]</sup>. Therefore, implementing robust green talent management practices can foster a workforce that promotes green innovation, thereby fostering a more sustainable future.

The study also indicates that GTM positively impacts GOCB (H2), aligning with previous findings of <sup>[35,36,38]</sup>. Green talent management practices foster a work environment that promotes environmentally friendly business practices like green OCB. The hiring of individuals who prioritize sustainability increases the likelihood of these employees adopting green practices<sup>[57,58]</sup>. Encouraging employees to be environmentally conscious through training can lead to their adoption of green practices<sup>[59]</sup>. Recognizing and rewarding green behavior not only reinforces its importance but also motivates others to adopt it<sup>[60]</sup>. Overall, green talent management fosters a culture of environmental responsibility, resulting in a higher prevalence of green OCB.

In addition, the study reveals that GOCB positively impacts GI (H3) and positively mediates the relationship between GTM and GI (H4). These findings are consistent with other research of<sup>[15,42,43]</sup>. Employee initiative on environmental issues demonstrates care and fosters innovation, allowing employees to suggest sustainable practices and products<sup>[61]</sup>. GOCB fosters open communication among employees from various departments, fostering diverse perspectives and fostering creative solutions for environmental challenges<sup>[62]</sup>. Employees who are actively looking for ways to reduce waste or conserve resources are more likely to identify opportunities for green innovation<sup>[43]</sup>. GTM promotes a green workforce by attracting and retaining environmentally conscious employees, laying the groundwork for green OCB. This encourages green behaviors, sparking innovation and connecting green talent management with successful green innovation.

Lastly, the study reveals that green values positively moderate the GTM-GOCB (H5) and GOCB-GI (H6) relationships. These findings are consistent with previous results of Dumont et al.<sup>[28]</sup> and Hooi et al.<sup>[41]</sup>. Employee's values and beliefs about the environment influence how they act within an organization<sup>[63]</sup>. When an organization fosters pro-environmental values, it creates a "green ideology." This ideology translates into daily habits that become ingrained over time, ultimately shaping a "green culture". GTM, as a central HR strategy, plays a vital role in aligning the organization's environmental philosophy with employee behavior. In simpler terms, HR bridges the gap between what the company values regarding the environment and how employees actually act<sup>[64]</sup>. It plays a vital role in raising employee awareness about environmental issues and encouraging them to adopt pro-environmental behaviors at work. HR can implement "green functions" like green recruitment, rewards, performance management, and training. These functions serve as tools to shape employee values, beliefs, and ultimately, their environmental actions<sup>[65-67]</sup>.

In essence, GTM has the power to influence employee behavior by integrating environmental considerations into various aspects of their work experience. This fosters a culture of environmental responsibility within the organization.

The study focused on GTM, GOCB, and GV in the context of green innovation offering several valuable contributions to the HRM literature. While green HRM practices in terms of green talent management have traditionally focused on environmental practices within organizations, the current study expands this scope to include the role of green talent management in driving green innovation. By examining the interconnectedness of GTM, GOCB, and GV and how these factors interact, the current research highlights the importance of a holistic approach to GTM, GOCB, and GV, and arguing that they are not isolated components but rather interconnected elements that collectively contribute to green innovation. Therefore, the study likely provides empirical evidence to support the theoretical relationship between these factors and green innovation. This can strengthen the existing body of knowledge and offer practical insights for organizations seeking to implement green initiatives. HR professionals should prioritize GTM, cultivate GOCB, and promote GV to foster sustainability and alignment among employees.

## **7. Theoretical implications**

As mentioned earlier, the impact of green talent management on green innovation in hospitality enterprises has not been thoroughly investigated. Numerous studies have examined the effects of generic TM and the factors influencing employees' innovative behavior. This study is the first to explore green TM as a precursor to green innovation, examining the mediating role of GOCB and the moderating role of GV. The study provides new insights into how green TM, GOCB, and GV can predict green innovation in tourism and hotel institutions. This study also contributes to the literature on human resource management by highlighting the importance of GTM, GOCB, and GV in advancing green innovation. The study emphasizes the significant role of GTM, GOCB, and GV in promoting GI. Lastly, this study offers a contextual analysis of green practices in advanced emerging economies. Previous research has primarily focused on the Western context or less advanced emerging economies.

## **8. Managerial implications**

Hotel and tourism enterprises should be aware that a robust green culture is a potent strategy for organizations to foster a workforce devoted to environmental sustainability. Organizations foster a supportive environment by incorporating environmental values and goals into their culture, empowering employees to make environmentally conscious choices. Also, they need to understand that a green culture promotes internalization, involving employees understanding the purpose of sustainability efforts and

viewing them as part of the company's mission, leading to more voluntary green actions. Hotel and tourism organizations can foster a green culture by offering education programs, leading by example, implementing eco-friendly practices, rewarding employees who demonstrate green behavior, and involving employees in green initiatives. These strategies not only improve environmental impact but also create a more engaged and motivated workforce, benefiting everyone involved.

This study emphasizes the importance of promoting green values and GOCB in sustainability-focused entities, emphasizing the need for green systems, practices, and education to incentivize employee green innovation and encourage sustainable practices. A focus on green values can foster a culture that encourages employees to develop and implement sustainable practices within the organization. This "green mindset" can lead to valuable innovations. When employees feel their company prioritizes environmental responsibility, it can boost morale and engagement.

Hotel and tourism enterprises should incorporate environmental values into their mission, policies, and leadership behaviors. They also should provide comprehensive training to its employees on environmental practices and equip them with the necessary knowledge and tools to act sustainably. Hotel and tourism managers should recognize and appreciate employees who exhibit green citizenship behaviors, as this encourages positive behavior and motivates others. Managers should encourage employee participation in green initiatives to foster a sense of ownership and engagement. Importantly, management should adopt a robust green leadership style by integrating sustainability into decision-making and daily operations.

## **9. Limitations and further research**

This study has proven that GTM is a significant predictor of GI. In addition, GOCB was found in this study to mediate the influence of GTM on GI, and GV to positively moderate the GTM-GOCB and GOCB-GI relationships. This study's model provides potential for researchers and practitioners to create more comprehensive, complex models for investigating outcomes of GTM or other GI antecedents. The study's limitations include its convenience sampling technique and its narrow focus on the tourism and hotel industry, which restricts its generalization. Therefore, the model's replication in various industries, including tourism and hotel segments like airlines and restaurants, will be intriguing. The recommendation is also for a longitudinal investigation to ensure the causality and generalizability of our prediction-oriented model. Lastly, further comparative studies are required in various cultural contexts, particularly in other MENA countries.

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## **Conflict of interest**

The authors declare no conflict of interest.

## **References**

1. Munawar, S., Yousaf, H. Q., Ahmed, M., & Rehman, S. (2022). Effects of green human resource management on green innovation through green human capital, environmental knowledge, and managerial environmental concern. *Journal of Hospitality and Tourism Management*, 52, 141-150.
2. Yusliza, M. Y., Yong, J. Y., Tanveer, M. I., Ramayah, T., Faezah, J. N., & Muhammad, Z. (2020). A structural model of the impact of green intellectual capital on sustainable performance. *Journal of Cleaner Production*, 249, 119334.

3. Hassan, A., Baquero, A., Salama, W., & Khairy, H. (2024). Engaging Hotel Employees in the Era of Artificial Intelligence: The Interplay of Artificial Intelligence Awareness, Job Insecurity, and Technical Self-Efficacy, *Journal of Logistics, Informatics and Service Science*, 11(5), 522-539. DOI:10.33168/JLISS.2024.0530
4. JASIM, T., KHAIRY, H., FAYYAD, S., & AL-ROMEEDY, B. (2024). DIGITAL LEADERSHIP AND CREATIVE PERFORMANCE IN TOURISM AND HOTEL ENTERPRISES: LEVERAGING STRATEGIC AGILITY AND ORGANIZATIONAL LEARNING CULTURE. *GeoJournal of Tourism and Geosites*, (2).
5. Sharma, T., Chen, J., & Liu, W. Y. (2020). Eco-innovation in hospitality research (1998-2018): a systematic review. *International Journal of Contemporary Hospitality Management*, 32(2), 913-933.
6. Khairy, H. A., Elzek, Y., Aliane, N., & Agina, M. F. (2023). Perceived Environmental Corporate Social Responsibility Effect on Green Perceived Value and Green Attitude in Hospitality and Tourism Industry: The Mediating Role of Environmental Well-Being. *Sustainability*, 15(6), 4746.
7. Alshehri, N.Z., Baquero, A., Abd-Elhady, M.H., Salama, W.M.E., Khairy, H.A., & Abouelenien, R.E.I. (2024). GREEN HRM AND GREEN COMPETITIVE ADVANTAGE IN HOTEL AND TOURISM INDUSTRY: A MEDIATED MODERATION MODEL USING ECO-INNOVATION AND GREEN PSYCHOLOGICAL CLIMATE. *GeoJournal of Tourism and Geosites*, 52(1), 313–322. <https://doi.org/10.30892/gtg.52130-1207>.
8. Ogbeibu, S., Chiappetta Jabbour, C. J., Burgess, J., Gaskin, J., & Renwick, D. W. (2022). Green talent management and turnover intention: the roles of leader STARA competence and digital task interdependence. *Journal of Intellectual Capital*, 23(1), 27-55. <https://doi.org/10.1108/JIC-01-2021-0016>.
9. Khairy, H. A., Fahmy, N. S., Awad, A. H. I., & Ashour, E. Z. (2024). Green Work Engagement and Green Competitive Advantage in Five-Star Hotels and Travel Agencies: The Role of Green Creativity. *Journal of the Faculty of Tourism and Hotels-University of Sadat City*, 8(1/1).
10. Al-Romeedy, B. S., & Khairy, H. A. (2024a). Eco-Innovation and Hospitality and Tourism Business Resilience: The Mediating Role of Green Dynamic Capabilities. In *Shifts in Knowledge Sharing and Creativity for Business Tourism* (pp. 17-36). IGI Global.
11. Olya, H., Ahmad, M. S., Abdulaziz, T. A., Khairy, H. A., Fayyad, S., & Lee, C.-K. (2024). Catalyzing green change: The impact of tech-savvy leaders on innovative behaviors. *Corporate Social Responsibility and Environmental Management*, 1–14. <https://doi.org/10.1002/csr.2871>
12. Odugbesan, J. A., Aghazadeh, S., Al Qaralleh, R. E., & Sogeke, O. S. (2023). Green talent management and employees' innovative work behavior: the roles of artificial intelligence and transformational leadership. *Journal of knowledge management*, 27(3), 696-716. <https://doi.org/10.1108/JKM-08-2021-0601>
13. Ogbeibu, S., Pereira, V., Emelifeonwu, J., & Gaskin, J. (2021). Bolstering creativity willingness through digital task interdependence, disruptive and smart HRM technologies. *Journal of Business Research*, 124, 422-436. <https://doi.org/10.1016/j.jbusres.2020.10.060>
14. Gardas, B. B., Mangla, S. K., Raut, R. D., Narkhede, B., & Luthra, S. (2019). Green talent management to unlock sustainability in the oil and gas sector. *Journal of Cleaner Production*, 229, 850-862. <https://doi.org/10.1016/j.jclepro.2019.05.018>.
15. Bui, L. T. T., & Chang, Y. (2018). Talent management and turnover intention: focus on Danang city government in Vietnam. *International Review of Public Administration*, 23(4), 219-236. <https://doi.org/10.1080/12294659.2018.1552403>.
16. Liu, Z., Mei, S., & Guo, Y. (2021). Green human resource management, green organization identity and organizational citizenship behavior for the environment: the moderating effect of environmental values. *Chinese Management Studies*, 15(2), 290-304. <https://doi.org/10.1108/CMS-10-2019-0366>.
17. Ndolo, F. M., Kingi, W. K., & Idua, M. P. (2017). Effect of talent management practices on employee performance among commercial based state corporations in Kenya. *International Journal of Management and Commerce Innovations*, 5(1), 580-591.
18. Son, J., Park, O., Bae, J., & Ok, C. (2020). Double-edged effect of talent management on organizational performance: the moderating role of HRM investments. *The international journal of human resource management*, 31(17), 2188-2216. <https://doi.org/10.1080/09585192.2018.1443955>
19. Widodo, W., & Mawarto, M. (2020). Investigating the role of innovative behavior in mediating the effect of transformational leadership and talent management on performance. *Management Science Letters*, 10(10), 2175-2182. <https://doi.org/10.5267/j.msl.2020.3.019>
20. Abdul Latif, F. D., Saraih, U. N., & Harada, Y. (2019). Talent management and turnover intention: the moderating effect of employee engagement. *Journal of Advanced Research in Business, Marketing and Supply Chain Management*, 3(1), 10-17. <https://doi.org/10.10516/j.jarims.2019.10.075>.
21. Barkhuizen, N., & Schutte, N. (2017). Talent management, burnout and retention of employees in a selected Botswana mine. *Journal of Innovative Research in Education and Management*, 1(1), 8-13.

22. Takalo, S. K., & Tooranloo, H. S. (2021). Green innovation: A systematic literature review. *Journal of Cleaner Production*, 279, 122474. <https://doi.org/10.1016/j.jclepro.2020.122474>
23. Khanra, S., Kaur, P., Joseph, R. P., Malik, A., & Dhir, A. (2022). A resource-based view of green innovation as a strategic firm resource: Present status and future directions. *Business Strategy and the Environment*, 31(4), 1395-1413. <https://doi.org/10.1002/bse.2961>
24. Boiral, O. (2009). Greening the corporation through organizational citizenship behaviors. *Journal of business ethics*, 87, 221-236. <https://doi.org/10.1007/s10551-008-9881-2>
25. Mustonen, N., Karjaluoto, H., & Jayawardhena, C. (2016). Customer environmental values and their contribution to loyalty in industrial markets. *Business Strategy and the Environment*, 25(7), 512-528. <https://doi.org/10.1002/bse.1882>
26. Vermeersch, L., Sanders, D., & Willson, G. (2016). Generation Y: Indigenous tourism interests and environmental values. *Journal of Ecotourism*, 15(2), 184-198. <https://doi.org/10.1080/14724049.2016.1165233>
27. Chou, C. J. (2014). Hotels' environmental policies and employee personal environmental beliefs: Interactions and outcomes. *Tourism management*, 40, 436-446.
28. Dumont, J., Shen, J., & Deng, X. (2017). Effects of green HRM practices on employee workplace green behavior: The role of psychological green climate and employee green values. *Human resource management*, 56(4), 613-627. <https://doi.org/10.1002/hrm.21792>
29. Chaudhary, R. (2020). Green human resource management and employee green behavior: an empirical analysis. *Corporate Social Responsibility and Environmental Management*, 27(2), 630-641. <https://doi.org/10.1002/csr.1827>
30. Umair, S., Waqas, U., Mrugalska, B., & Al Shamsi, I. R. (2023a). Environmental Corporate Social Responsibility, Green Talent Management, and Organization's Sustainable Performance in the Banking Sector of Oman: The Role of Innovative Work Behavior and Green Performance. *Sustainability*, 15(19), 14303. <https://doi.org/10.3390/su151914303>
31. Rahmayanti, R., & Johan, A. (2024). Does Innovative Work Behavior Matter for Performance? Green Talent Management and Green Servant Leadership in the Healthcare Industry. *JBTI: Jurnal Bisnis: Teori dan Implementasi*, 15(1), 85-100. <https://doi.org/10.18196/jbti.v15i1.21346>
32. Umair, S., Waqas, U., & Mrugalska, B. (2023b). Cultivating sustainable environmental performance: The role of green talent management, transformational leadership, and employee engagement with green initiatives. *Work*, (Preprint), 1-13. <https://doi.org/10.3233/WOR-230357>
33. Nwosu, B., & Ward, T. (2016). The way forward: human capital development in the hotel industry in Nigeria. *Worldwide Hospitality and Tourism Themes*, 8(2), 235-240. <https://doi.org/10.1108/WHATT-11-2015-0049>
34. Sopiah, S., Kurniawan, D. T., Elfia, N. O. R. A., & Narmaditya, B. S. (2020). Does talent management affect employee performance?: The moderating role of work engagement. *The Journal of Asian Finance, Economics and Business*, 7(7), 335-341.
35. Ma, C., Chen, Z. X., & Jiang, X. (2022). Give full play to the talent: Exploring when perceived overqualification leads to more altruistic helping behavior through extra effort. *Personnel Review*, 51(6), 1727-1745. <https://doi.org/10.1108/PR-03-2020-0164>
36. Atrizka, D., Lubis, H., Simanjuntak, C. W., & Pratama, I. (2020). Ensuring Better Affective Commitment and Organizational Citizenship Behavior through Talent Management and Psychological Contract Fulfillment: An Empirical Study of Indonesia Pharmaceutical Sector. *Systematic Reviews in Pharmacy*, 11(1). <https://doi.org/10.5530/srp.2020.1.68>
37. Al Aina, R., & Atan, T. (2020). The impact of implementing talent management practices on sustainable organizational performance. *Sustainability*, 12(20), 8372. <https://doi.org/10.3390/su12208372>
38. Umair, S., Waqas, U., & Mrugalska, B. (2023). Cultivating sustainable environmental performance: The role of green talent management, transformational leadership, and employee engagement with green initiatives. *Work*, (Preprint), 1-13. <https://doi.org/10.3233/WOR-230357>
39. Boiral, O., & Paillé, P. (2012). Organizational citizenship behaviour for the environment: Measurement and validation. *Journal of business ethics*, 109, 431-445. <https://doi.org/10.1007/s10551-011-1138-9>
40. Paillé, P., Chen, Y., Boiral, O., & Jin, J. (2014). The impact of human resource management on environmental performance: An employee-level study. *Journal of Business ethics*, 121, 451-466.
41. Hooi, L. W., Liu, M. S., & Lin, J. J. (2022). Green human resource management and green organizational citizenship behavior: do green culture and green values matter?. *International Journal of Manpower*, 43(3), 763-785. <https://doi.org/10.1108/IJM-05-2020-0247>

42. Bhushan, M., & Singh, R. (2024). Talent Management Facilitates Net-Zero Transition Through Employee Green Behavior. In *Net Zero Economy, Corporate Social Responsibility and Sustainable Value Creation: Exploring Strategies, Drivers, and Challenges* (pp. 117-129). Cham: Springer Nature Switzerland. [https://doi.org/10.1007/978-3-031-55779-8\\_7](https://doi.org/10.1007/978-3-031-55779-8_7).
43. Öğretmenoğlu, M., Akova, O., & Göktepe, S. (2022). The mediating effects of green organizational citizenship on the relationship between green transformational leadership and green creativity: evidence from hotels. *Journal of Hospitality and Tourism Insights*, 5(4), 734-751. <https://doi.org/10.1108/JHTI-07-2021-0166>.
44. Edwards, J. R., & Cable, D. M. (2009). The value of value congruence. *Journal of applied psychology*, 94(3), 654. <https://doi.org/10.1037/a0014891>.
45. Schein, E. H. (2010). *Organizational culture and leadership* (Vol. 2). John Wiley & Sons.
46. Cha, S. E., & Edmondson, A. C. (2006). When values backfire: Leadership, attribution, and disenchantment in a values-driven organization. *The Leadership Quarterly*, 17(1), 57-78. <https://doi.org/10.1016/j.leaqua.2005.10.006>.
47. Rupp, D. E., Ganapathi, J., Aguilera, R. V., & Williams, C. A. (2006). Employee reactions to corporate social responsibility: An organizational justice framework. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 27(4), 537-543. <https://doi.org/10.1002/job.380>.
48. Edwards, J. R. (1996). An examination of competing versions of the person-environment fit approach to stress. *Academy of management journal*, 39(2), 292-339.
49. Kravariti, F., Voutsina, K., Tasoulis, K., Dibia, C., & Johnston, K. (2022). Talent management in hospitality and tourism: a systematic literature review and research agenda. *International Journal of Contemporary Hospitality Management*, 34(1), 321-360.
50. Wang, C. H. (2019). How organizational green culture influences green performance and competitive advantage: The mediating role of green innovation. *Journal of Manufacturing Technology Management*, 30(4), 666-683. <https://doi.org/10.1108/JMTM-09-2018-0314>.
51. Pham, N. T., Tučková, Z., & Jabbour, C. J. C. (2019). Greening the hospitality industry: How do green human resource management practices influence organizational citizenship behavior in hotels? A mixed-methods study. *Tourism management*, 72, 386-399. <https://doi.org/10.1016/j.tourman.2018.12.008>.
52. Jackson, D., & Humble, J. (1994). Middle managers: New purpose, new directions. *Journal of Management Development*, 13(3), 15-21.
53. Kock, N. (2021). *WarpPLS User Manual: Version 7.0*. Laredo, TX: ScriptWarp Systems.
54. Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior research methods*, 40(3), 879-891.
55. Christensen Hughes, J., & Rog, E. (2008). Talent management: A strategy for improving employee recruitment, retention and engagement within hospitality organizations. *International journal of contemporary hospitality management*, 20(7), 743-757. <https://doi.org/10.1108/09596110810899086>.
56. Mujtaba, M., & Mubarik, M. S. (2022). Talent management and organizational sustainability: role of sustainable behaviour. *International Journal of Organizational Analysis*, 30(2), 389-407. <https://doi.org/10.1108/IJOA-06-2020-2253>.
57. Stringer, L. (2010). *The green workplace: Sustainable strategies that benefit employees, the environment, and the bottom line*. St. Martin's Press.
58. Chams, N., & García-Blandón, J. (2019). On the importance of sustainable human resource management for the adoption of sustainable development goals. *Resources, Conservation and Recycling*, 141, 109-122. <https://doi.org/10.1016/j.resconrec.2018.10.006>.
59. Gull, S., & Idrees, H. (2022). Green training and organizational efficiency: mediating role of green competencies. *European Journal of Training and Development*, 46(1/2), 105-119. <https://doi.org/10.1108/EJTD-10-2020-0147>.
60. Saeed, B. B., Afsar, B., Hafeez, S., Khan, I., Tahir, M., & Afridi, M. A. (2019). Promoting employee's proenvironmental behavior through green human resource management practices. *Corporate Social Responsibility and Environmental Management*, 26(2), 424-438. <https://doi.org/10.1002/csr.1694>
61. Shahzad, M. A., Jianguo, D., & Junaid, M. (2023). Impact of green HRM practices on sustainable performance: mediating role of green innovation, green culture, and green employees' behavior. *Environmental Science and Pollution Research*, 30(38), 88524-88547. <https://doi.org/10.1007/s11356-023-28498-6>.
62. Muisyo, P. K., Qin, S., Ho, T. H., Julius, M. M., & Barisoava Andriamandresy, T. (2022). Implications of GHRM on organisational citizenship behaviour: the mediating role of enablers of green culture. *International Journal of Manpower*, 43(3), 719-741. <https://doi.org/10.1108/IJM-05-2020-0245>.



63. Chang, C. H. (2015). Proactive and reactive corporate social responsibility: antecedent and consequence. *Management Decision*, 53(2), 451-468. <https://doi.org/10.1108/MD-02-2014-0060>.
64. Roscoe, S., Subramanian, N., Jabbour, C. J., & Chong, T. (2019). Green human resource management and the enablers of green organisational culture: Enhancing a firm's environmental performance for sustainable development. *Business Strategy and the Environment*, 28(5), 737-749. <https://doi.org/10.1002/bse.2277>.
65. Amini, M., Bienstock, C. C., & Narcum, J. A. (2018). Status of corporate sustainability: A content analysis of Fortune 500 companies. *Business Strategy and the Environment*, 27(8), 1450-1461. <https://doi.org/10.1002/bse.2195>
66. Alghamdi, A., Baquero, A., Khairy, H.A. & Salama, W.M.E. (2024). Social Loafing and Job Performance in Hotels: Does Transactional Leadership Matter? *African Journal of Hospitality, Tourism and Leisure*, 13(1):192-197. <https://doi.org/10.46222/ajhtl.19770720.497>
67. Khairy, H. A., & Lee, Y. M. (2018). ENHANCING CUSTOMERS' BRAND COMMITMENT: A MULTIDIMENSIONAL PERSPECTIVE OF BRAND CITIZENSHIP BEHAVIOR IN EGYPTIAN HOTELS. *International Journal on Recent Trends in Business and Tourism (IJRTBT)*, 2(1), 27-38.