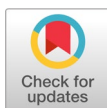



Journal of Management and Research (JMR)

Volume 12 Issue 2, Fall 2025

ISSN(P): 2218-2705, ISSN(E): 2519-7924

Homepage: <https://ojs.umt.edu.pk/index.php/jmr>



Title:	The Role of Authentic Leadership in Promoting Environmental Behaviors: Hotel Industry Context
Author (s):	Maryam Gull ¹ , Sobia Hassan ² , Ayesha Sandhu ² , and Shazia Parveen ³
Affiliation (s):	¹ Department of Management Sciences, Lahore College for Women University, Lahore, Pakistan ² Department of Public Administration, Lahore College for Women University, Lahore, Pakistan ³ University of the West of Scotland, Paisley, United Kingdom
DOI:	https://doi.org/10.29145/jmr.122.02
History:	Received: July 01, 2025, Revised: August 28, 2025, Accepted: October 01, 2025, Published: December 01, 2025
Citation:	Gull, M., Hassan, S., Sandhu, A., & Parveen, S. (2025). The role of authentic leadership in promoting environmental behaviors: Hotel industry context. <i>Journal of Management and Research</i> , 12(2), 29–58. https://doi.org/10.29145/jmr.122.02
Copyright:	© The Authors
Licensing:	 This article is open access and is distributed under the terms of Creative Commons Attribution 4.0 International License
Conflict of Interest:	Author(s) declared no conflict of interest



A publication of
Dr. Hasan Murad School of Management
University of Management and Technology, Lahore, Pakistan

The Role of Authentic Leadership in Promoting Environmental Behaviors: Hotel Industry Context

Maryam Gull^{1*}, Sobia Hassan², Ayesha Sandhu², and Shazia Parveen³

¹Department of Management Sciences, Lahore College for Women University, Lahore, Pakistan

²Department of Public Administration, Lahore College for Women University, Lahore, Pakistan

³School of Business and Creative Industries, University of the West of Scotland, Paisley, United Kingdom

Abstract

Employee behaviour and work settings have a substantial effect in the context of hotel business because of its heavy reliance on human activities. This study seeks to examine the relationship between authentic leadership (AL), workplace environmental behaviors (WPEB), and green organizational support (GOS) based on social identity theory (SIT). The study also investigates how GOS mediates the relationships between WPEB and AL. 194 hotels' employees in Pakistan participated in the investigation using snowball sampling through self-administered surveys. Structural Equation Modeling was used to test the proposed hypotheses under study. The results demonstrate a significant positive influence of AL, GOS, and environmental focused behaviors in hotel workplaces. Furthermore, GOS acts as a mediator between AL and WPEB. Thus, this study suggests important insights by highlighting environmental behaviours in the workplace and the importance of supporting sustainable organizations in the hospitality sector. This study also highlights the need for the hospitality sector to enrich environmental behaviors in the workplace and promote policies that support the transition to a sustainable hospitality industry.

Keywords: authentic leadership, green organisational support, hotel industry, workplace environmental behaviors

Introduction

Ingenious approaches and behaviors that encourage sustainability and reduce the environmental impression of business practices are part of the progress toward fostering environmentally welcoming practices in the workplace (Gull et al., [2024](#)). Economic development is increasing day by day due to the expansion of the tourism industry (Khatter et al., [2021](#)). However, in its initial stage, the industry faces numerous challenges (Raza

*Corresponding Author: maryam.gull@lcwu.edu.pk

& Khan, [2022](#)), including political uncertainty, economic instability, inadequate infrastructure, security concerns, energy crises, and the practical implementation of sustainable practices. In the tourism industry, hotel management is one of the most energy-consuming sectors (Farooq et al., [2021](#)). Hotels have an ecological impact in terms of energy usage, production of waste, water consumption, and the carbon footprint of travel, all of which indirectly contribute to greenhouse gas emissions (Gull et al., [2024](#)). Waste is left on the grounds because many hotels lack effective recycling and composting systems and this industry generates a substantial amount of waste material, and utilizes numerous resources to remain competitive, ultimately depleting the environment. The industry focuses on promoting a dynamic shift in employees' green behavior in the hospitality sector to address environmental sustainability challenges (Gull et al., [2023](#); Tosun et al., [2022](#)). As more focus is on ecological sustainability, the government is also imposing on every sector to take responsibility for adopting ecological behaviors, and the hotel industry is no exception (Lenzen et al., [2018](#)). The study by Nadeem et al. ([2025](#)) employs a multi-criteria decision-making approach to prioritise the determinants of green employee behaviour, indicating the need for dedicated research on drivers such as leadership and organisational support.

The effect of leadership in nurturing WPEB is central (Aziz & Hussain, [2025](#)). There is growing concern about what leadership style best fits effective green management practices within the hotel industry. This study is significant and represents an initial attempt for managers seeking to implement practical approaches to generate workplace environmental behaviors (WPEB) among their employees through authentic leadership (AL). The relevance of environmentally exclusive leadership styles and their effects on pro-environmental behaviour in the workplace can serve as a basis for investigating the nature of authentic leadership (Butt, [2024](#)). Thus, considering the reasons that determine such green behaviors becomes crucial. Most significantly, organisations are facing increasingly serious environmental challenges, compelling academics and experts to devise strategies to enhance environmental awareness among employees and promote their WPEB (Zhang et al., [2024](#)).

Leaders are at the apex of the organization, and their behaviors and actions are followed by their employees. Authentic leaders focus more on environmentally green behaviour (Farrukh et al., [2023](#)). An authentic leader

follows a form of leadership that fosters the growth of a green work environment rooted in its core values. Authentic leaders anticipate supporting environmental and societal issues by setting examples of openness and innovative ideas (Srivastava et al., [2020](#)). Leaders who establish AL qualities are more appropriate in directing followers toward good ethical and moral conduct, such as green behaviour, and guiding employees to limit environmental problems (Avolio & Gardner, [2005](#)). However, the influence of authentic leaders on WPEB is still in the early stages of research, which needs to be addressed (Farrukh et al., [2023](#)) in terms of tenure and hierarchy of leaders.

When employees have ecological passions, they demonstrate their desire and commitment to green work activities. Robertson and Barling ([2017](#)) emphasized that employees follow their leaders' behaviors when they are inclined toward environmental preservation. Furthermore, when employees receive rewards from their organisations for their WPEB, they believe that organisational support is there for those who value their contribution to environmental sustainability (Aboramadan & Karatepe, [2021](#)).

Organisational Support Theory (OST) advocates that when employees observe favourable treatment from their employers, this tends to intensify their organisational support (Rhoades & Eisenberger, [2002](#)) and realise that the organisation values their contributions and cares about their welfare (Kurtessis et al., [2017](#)). It is evident in the extant literature that leaders perform a substantial role in enhancing employees' organizational support (Huning et al., [2020](#)). Therefore, it has been identified that when employees realise their leaders are approachable, open, and available to address environmental concerns, such perceptions are considered positive green work behaviors, ultimately fostering their green organisational support (GOS) (Aboramadan et al., [2022a](#)). The determinants of organizational citizenship behaviors of the employees in relation to the environment are entirely comprehended in the work by Henriques ([2024](#)), and it is necessary to present those types of behaviors due to a comprehensive understanding of the problem, which will help create the essential conceptual framework of this study.

To examine the considerable impact of follower WPEB on organizational environmental outcomes, GOS is considered an essential link between AL and followers' behaviors. Previous studies overlooked the

mediating role of GOS in the relationship between AL and WPEB. Therefore, explaining how a leader influences the employees' green initiatives for a sustainable future in the hotel industry is essential. Thus, the research objectives are to identify the influence of AL on WPEB and to verify the mediating role of GOS between the stated variables based on social identity theory. Social Identity Theory can be a robust framework for understanding and promoting workplace environmental behaviors, explaining how individual attitudes and behaviors are influenced by the social groups to which they belong. The social identity approach not only offers a valuable theoretical perspective through which to study environmental behaviour but also offers solutions for addressing environmental complications (Fielding & Hornsey, [2016](#)). While building on established theories, this study provides valuable empirical evidence from the underexplored context of Pakistan's hospitality industry, highlighting the role of GOS and the importance of a supportive organizational culture in facilitating a green transition. Although the study offers little theoretical value, it provides valid empirical data in a contextual setting, supporting how AL can positively influence WPEB via GOS.

Problem Statement

Although sustainability initiatives in the hospitality industry are significant, a research gap exists in understanding the specific factors that influence the development of pro-environmental behaviors among its employees. The available literature is skewed by not focusing more on the problems peculiar to developing economies and the complex nature of leadership. This research, therefore, investigates the extent to which authentic leadership is associated with pro-environmental behaviour in the workplace, especially mediated through green organizational support. Through these relationships, we strive to establish a compelling framework for fostering a sustainable culture within our organisational setting.

Literature Review

Earlier researchers used social identity theory (SIT) to recognize the influence of leadership on environmental behaviors (Aboramadan et al., [2022b](#); Kim et al., [2019](#)). Employees view leaders as key role models and imitate their behaviors; therefore, the identity of leaders is superior to that of subordinates, and employees try to adopt their behaviors. When authentic leadership (AL) encourages employees to exhibit WPEB with green

organizational support (GOS), they can play a significant role in establishing an eco-friendly hospitality industry. The conceptual model is depicted in Figure 1.

Authentic Leadership (AL)

Authentic leadership is an approach to leadership that encapsulates self-discovery, moral perspective within a person, balanced cognitive processing, and the demonstration of relationships by the leader (Henriques, [2024](#)). Leading by example is one of the most obvious elements of an authentic leader, as it imparts the need to behave according to personal values, create an atmosphere of trust, and promote open communication. According to the literature, this form of leadership is crucial for establishing a favourable organizational climate and engaging employees (Al-Romeedy & Khairy, [2024](#)).

Authentic leadership (AL) is defined in terms of self-awareness, transparency, and sincerity, and has become popular in leadership research due to its proven positive impact on individuals and organizations. Researchers define its essential aspects, shedding light on the underlying mechanics. Subsequent research by Barbuto and Scholl ([2010](#)) looks into the elements of AL development, identifying personality traits, emotional intelligence, and self-efficacy as potential causes. Furthermore, Avolio et al. ([2009](#)) and Lee et al. ([2011](#)) have proven the favourable long-term impacts of AL, which range from greater job satisfaction and trust in leadership to improved creativity and performance.

Green Organisational Support (GOS)

Green Organisational Support (GOS) indicates employees' insights and opinions about their organizations' contributions and care for their well-being. GOS is a specific type of organizational support which indicates employees' perceptions towards the organizations' contributions to ecological actions and activities. GOS has emerged as a crucial conception for fostering employee engagement in sustainable practices and it enables employee participation in eco-friendly novelties and generates outcomes at both individual and organizational levels (Aboramadan et al., [2020](#); Chen et al., [2021](#)). The previous research scholars assert that employees who perceive high level of green organisational support are involved in eco-friendly activities and depict ecological friendly behaviors (knowledge sharing, green innovation and creativity, and ecological support for each

other) (Aboramadan et al., [2020a](#); Hameed et al., [2021](#)). This optimistic enthusiasm can be prejudiced by job satisfaction, leaders, intrinsic inspiration, and commitment at organizational level (Afsar et al., [2023](#); Khan et al., [2022](#)).

Green Organisational Support (GOS) has instigated to obtain growing consideration from numerous previous research academics as it has been revealed to encouragement employees' eco-friendly behaviors (Aboramadan et al., [2022a](#)).

Workplace Environmental Behaviors (WPEB)

Workplace Environmental Behaviors (WPEB) indicate the employees' voluntary activities to diminish their influence on the work environment, and it is a pitch of study predictable for its noteworthy involvement towards accomplishing organizational sustainability goalmouths. Sharma and Bansal ([2012](#)) and Chen et al. ([2021](#)) found that facilitative environments increase employee engagement in WPEB. Identification of these key factors enables organizations to formulate solutions that empower sustainable actions, resulting in environmental and organizational value.

In addition, green organizational support (GOS) for green human resource management (HRM) ingenuities, training, and organizational substructure shows a vital position. Bamberg and Moser ([2007](#)) and Steg and Vlek ([2009](#)) specified that perceived behavioural regulator (PBR), self-efficacy (SE), and environmental apprehension (EA) impact the development of environmentally moral goalmouths and behaviors.

The behaviour of environmental perception in the workplace refers to the voluntary activities and attitudes of an employee that contribute to making the environment sustainable within their organisation (Chua et al., [2024](#)). This entails not only the performance of in-role duties, such as adherence to waste management procedures, but also extra-role duties, i.e., green organisational citizenship behaviors, including volunteering key proposals for new energy-saving actions (Henriques, [2024](#)).

Authentic Leadership and Green Organizational Support

Authentic leaders are truthful, sensible, vulnerable, and can augment trust and assurance among their staff by motivating them to perform in the highest concentration of the organization (Avolio et al., [2004](#); Ilies et al., [2005](#)). Hameed et al. ([2021](#)) recommend that authentic leadership (AL) can

upsurge the proficiency of the Green Organizational Support (GOS), engendering an intensifying upshot on the workplace environmental behaviors (WPEB). For example, honest leaders can inspire green events and suggest concrete support, such as training, which intensified employee engagement (Wang et al., [2023](#)). GOS and AL both smooth WPEB in organizations. Furthermore, GOS is the facilitation of employees for the establishment of ecological creativities, which sanctions individuals to comprise in ecologically sustainable practices (Aboramadan et al., [2020](#); Chen et al., [2021](#)).

Jun et al. ([2025](#)) projected that presence of social identity theory (SIT) with organizational support theory (OST) can more efficaciously elucidate the linking between AL, organizational citizenship behaviour (OCB), and perceived organizational support (POS). This research presents a groundbreaking combination of SIT and OST to educate the inspiration of AL on followers' OCB. It is one of the introductory scholarships to extant organizational identification (OI) as an intermediating aspect in these connections and to examine the restraining impact of POS.

A philosophical inquiry of the multi-layered interaction between these perceptions unveils the vigorous reputation of AL and GOS for organizational sustainability. Despite contemporary knowledge, research gaps endure, and future research studies could investigate the explicit apparatuses through which AL achieves GOS, as well as the encouragement of enlightening backing on these consequences (Earley & Erez, [2005](#)). Thus, we endorse that:

H1: There is a positive association between authentic leadership (AL) and green organizational support (GOS).

Green Organisational Support and Workplace Environmental Behaviors

Green organizational support (GOS) performs a critical role in fostering workplace environmental behaviors (WPEB) and the degree to which employees feel reinforced by their organization in executing environmental initiatives (Zhang et al., [2022](#)). This inspiration can be pragmatic through employee commitment to the internal motivation, satisfaction and organization (Afsar et al., [2023](#); Khan et al., [2022](#)).

According to Chen et al. ([2021](#)) and Aboramadan et al. ([2020](#)), it has a positive influence on numerous arrangements of WPEB (green innovation,

energy preservation, and recycling). Additionally, direct support, comprised of resources and training by the GOS, impacts employee commitment to WPEB. Cultivating these principles determines specific interventions towards the environment (Wang et al., [2023](#)). Schlapp et al. ([2025](#)) highlighted the status of pro-environmental behavior (PEB) within organizations, accentuating the rank of organizational support in reassurance environmentally friendly practices.

Contribution in green infrastructure and starting environmentally friendly practices can stand-in WPEB, which fosters a culture of sustainability (Bashirun et al., [2025](#)). However, supplementary examination of the relationship between GOS and WPEB is required to regulate the aspects and facades of GOS that would subsidize to improve WPEB. Therefore, the following is proposed:

H2: There is a significant association between green organizational support and workplace environmental behaviors.

Authentic Leadership and Workplace Environmental Behaviors

Authentic leadership (AL) features self-awareness, morality, and authenticity in the workplace. Avolio et al. ([2004](#)) and Ilies et al. ([2005](#)) revealed that it can instil confidence, commitment, and determination in employees, commending and inspiring them to engross in green initiatives. Hameed et al. ([2021](#)) recommended that AL can produce a domino effect in fostering a culture of knowledge sharing (KS) and green innovation (GI) that encourages workplace environmental behaviors (WPEBs). AL also prioritizes honesty and ethical decision-making, which can generate an environment that endorses environmental achievement in the workplace.

Future, the researcher's purpose is to investigate how AL influences environmental performance, both individually and collectively, considering potential moderating factors such as organizational context and culture (Earley & Erez, [2005](#)). By increasing the engagement in this way, one can uncover the full capacity of AL to promote workplace environmental behaviour (WPEBs) as we move toward a sustainable future. Accordingly, it has been suggested that:

H3: There is a positive relationship between authentic leadership (AL) and workplace environmental behaviors (WPEB).

Authentic Leadership, Green Organisational Support, and Workplace Environmental Behaviors

The interplay of authentic leadership (AL), Green Organizational Support (GOS), and workplace environmental behaviours (WPEB) generates an actual agenda for improving organizational sustainability. This leadership continuously inspires moral decision-making and generates an environment that boosts ecologically responsible arrangements. GOS performs as a significant stimulus (Aboramadan et al., [2020](#); Chen et al., [2021](#)). Hameed et al. ([2021](#)) contended that AL boosts GOS, as leaders who promote green practices and provide GOS, generate a culture of innovation, which encourages WPEB.

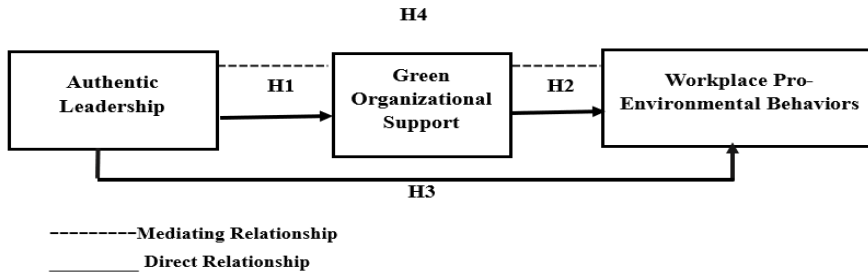
Organizations can propose tangible resources to support employees in adopting WPEB practices (recycling, green innovations and energy-saving) (Wang et al., [2023](#)). AL is demarcated by genuineness, improving a sense of collective purpose, which stimulates employees to accept green innovations (GI). Investigating the detailed traditions in which AL drives GOS, along with the influence of other moderating factors reveals exciting new opportunities for future researchers (Earley & Erez, [2005](#)). By employing this dynamic, organizations can galvanize individual work, motivate collective efforts, and achieve their sustainability goals. Consequently, based on the points, the authors suggest assuming that:

H4: Green Organizational Support mediates the relationship between authentic leadership and workplace environmental behaviours.

Conceptual Model

Figure 1

Conceptual Model



To investigate the mediating impact of green organisational support between authentic leadership and workplace pro-environmental behaviour, we developed and tested a model.

Methodology

Sample and Procedures

Employees from three, four, and five-star hotels in Pakistan have been included in the data collection. The administrators of the hospitality industry provided the authors advance permission to gather data after having explained the study's objectives. The current research sample consisted of employees with bachelor's degrees or above. Since employees with a bachelor's degree or above can understand English, there was no need to translate the questionnaires into any other language. Following previous research studies by Gull et al. (2023) and Jabbar et al. (2025), a cross-sectional study design was used to disseminate these questionnaires.

Snowball sampling highlights the importance of networking, and it was used to increase the response rate of data collection (Ahmad et al., 2023) as it removes the problem of inadequate sampling frames (Dhar, 2016; Nguyen et al., 2024). It was also used due to difficulties in accessing a random sample within the hotel industry, which is a common challenge. This sampling technique was used to select employees from the hospitality sector by selecting certain initial connections in the hospitality business. These contacts were well-connected and prepared to recommend others to participate in the study. The authors encouraged them to participate and request their assistance in referring other employees interested in participating by providing them with the study information and any additional materials they required (questionnaires or consent forms) to distribute to potential participants. As initial participants referred to others,

the network of potential participants was built in a cycle that continued. Each prospective respondent referred to additional people, thereby expanding the sample size through each referral chain. It helps to ensure that the sample size increases frequently and that participants are chosen through referrals until the goal sample size of 300 employees is met. Once the sample size was determined, the survey was distributed to the participants in person, by email, or online.

As a result, 300 self-administered questionnaires were distributed in person and via social media, ensuring the confidentiality of the participants' answers. Out of 300 surveys, 200 were returned after discarding six questionnaires, yielding a 65% response rate. The sample size aligns with the 35 responses for each construct (Kline, [2016](#)). The time when the data was collected was from November 10, 2023, to January 20, 2024. Previous studies have confirmed that hypothesis testing can be done using quantitative and survey methods (Gull et al., [2024](#); Hadadgar et al., [2016](#)). The quantitative method is distinct from qualitative methods (Naqvi et al., [2024](#)) as well as the mixed methods approach, and the selection relies on the purpose of the study.

Measures

The constructs in this study were measured with scales adapted from earlier studies. All the factors under study were measured with a 5-point Likert scale. It ranged from *strongly disagree* denoted by 1 to *strongly agree* denoted by 5.

In this research study, Walumbwa et al. ([2008](#)) adapted the eight items scale to measure Authentic Leadership, and previously the same scale of Walumbwa et al. ([2008](#)) was used to measure the construct of Authentic Leadership by Bai et al. ([2022](#)). The GOS scale was adapted from Paillé and Meija-Morelos ([2019](#)) with 5 items. The scale for workplace environmental behaviour was developed from the work of Robertson and Barling ([2013](#)). Gull et al. ([2024](#)) used the same scale for GOS and WPEB.

Analysis

SEM (SmartPLS version 3.0) analyzed the study. SmartPLS was utilized for the reporting of measurement models and for the generation of structural models. Smart PLS is taller for regression testing, particularly mediation research, and can be utilized for small samples (Henseler et al., [2016](#)). There are four aims for this study's research. Firstly, investigate how

AL directly relates to GOS. The second aim is to examine the GOS and WPEB. Next, the relationship between WPEB and GOS will be determined. Lastly, the mediation of GOS between AL and WPEB needs to be ascertained.

Results

Measurement Model

Using Anderson and Gerbing's (1988) two-step recommendations (Measurement and Structural model), the theoretical model of this study was examined. From the perspectives of Hair et al. (2019) and Ramayah et al. (2018), the validity and reliability of the measurement model were evaluated. In the measurement model, the average variance extracted (AVE), Alpha, r-rho, and composite reliability (CR) are evaluated (refer to Table 1). The CR values are more significant than 0.7 (Hair et al., 2019). According to Peterson (1994), all of the study variables' alpha values are over the 0.70 threshold value except the WPEB value. The alpha value can be accepted as an AVE value of 0.543, above 0.5 (Table 1). Prior literature has shown that in management and organisational research, some constructs have a Cronbach's alpha value less than 0.60, but when the AVE value is more than 0.50. CR value is more than 0.60, then the measures having a Cronbach's alpha value less than 0.60 are still valid, acceptable and reliable (Sarstedt et al., 2014; Taber, 2018; Wong, 2013). Values around 0.50 may be valid if other indicators provide support, such as AVE and CR. The three items of authentic leadership (AL), AL6, AL7, and AL8, were excluded due to low loading factors. It indicates that reliability is adequate. For every variable, the AVE values are more than 0.5, illustrating acceptable levels.

Table 1
Reliability, Validity Values

	Alpha	Rho-A	CR	AVE
AL	0.873	0.880	0.907	0.662
GOS	0.911	0.925	0.933	0.737
WPEB	0.561	0.578	0.777	0.543

R square for GOS is 0.273, and WPEB is 0.128. According to Hair et al. (2019), the *R*-squared values of GOS are more significant than 0.26, indicating a moderate influence. The *R*-squared values of WPEB are equal to 0.128, indicating a weak influence (See Table 2).

Table 2*Values of R^2 and Adjusted R^2*

	R^2	Adjusted R^2
GOS	0.273	0.269
WPEB	0.128	0.119

The Heterotrait-Monotrait Ratio (HTMT) is used to assess the discriminant validity. According to Henseler et al. (2015), HTMT values are considered satisfactory if they are less than or equal to 0.90 when using the lenient criterion or less than or equal to 0.85 when using the stringent criterion. As a result, every HTMT value (refer to Table 3) falls within a reasonable range, indicating that each of the three constructs is unique.

Table 3*HTMT values*

	AL	GOS
AL		
GOS	0.568	
WPEB	0.385	0.472

Structural Model

Five thousand subsamples with a 95% confidence interval were chosen to evaluate the structural model. Multicollinearity was measured using the variance inflation factor (VIF) (see Table 4), with all values meeting the acceptable criterion as recommended by Hair et al. (2019). Neither the researcher nor the research study responder is expected to inflate the results to ensure confidentiality and anonymity of the questionnaire. The consent of the respondents was also taken to avoid bias. The structural model examined the hypothesis in Fig. 2. Therefore, according to the guidelines of Baron and Kenny (1986), the complete mediation between AL and WPEB with GOS is supported.

Table 4*Variance Inflation Factor (VIF)*

	VIF
AL1	2.094
AL2	2.261
AL3	1.878
AL4	2.003

AL5	2.050
GOS1	2.459
GOS2	2.163
GOS3	3.580
GOS4	4.013
GOS5	2.736
WPEB4	1.049
WPEB6	1.446
WPEB7	1.411

Table 5 shows that the path coefficients, t-values, and bias-corrected 95% confidence intervals of the direct and mediation relationships are meeting the threshold values, thus depicting that the relationships between model's variables were statistically significant. The substantial direct correlations between the research variables proposed by Hair et al. (2019) and Gull et al. (2023) are supported by a t-value larger than 1.96. The p-values of all direct and indirect associations (Hypothesis 1, 2, and 3) and indirect associations (Hypothesis 4) also depict the significant relationships. The '0' value was not indicated by the bias-corrected confidence intervals (BCI-LL and BCI-UL). The complete mediation for hypotheses, namely H4, is thus supported by the findings of the current framework.

Figure 2

Structural Model

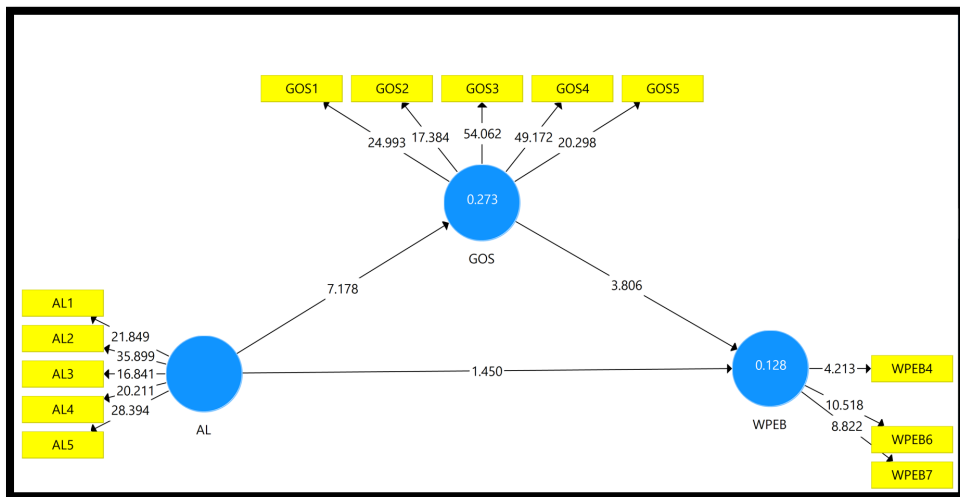


Table 5*Hypotheses Testing*

Paths	<i>t</i> -values	BCI LL 2.5%	BCI UL 97.5%	<i>p</i> - values
AL → GOS	7.178	0.377	0.660	0.000
AL → WPEB	4.757	0.207	0.448	0.000
GOS → WPEB	3.806	0.135	0.415	0.000
AL → GOS → WPEB	3.509	0.072	0.233	0.000

Discussion

Organizations invest considerable effort in environmental conservation, and their support encourages employees to engage in workplace environmental behaviors (WPEB). Understanding the factors that influence this behaviour is crucial for promoting it among employees. Authentic leadership (AL) is a significant factor affecting employee behaviour. Authentic leaders in organizations contribute to positive outcomes, such as improved environmental management (Farrukh et al., [2023](#)). However, research on this topic remains limited, especially in Pakistan. Therefore, the main objective of this study is to determine the effect of AL on WPEB through green organizational support (GOS) in the hospitality industry in Pakistan. The results suggest that GOS is an essential link between AL and WPEB. Authentic leaders have confidence in their abilities, have faith in resiliency, ethicality, and morality, and enhance organizational support among employees. Employees realise that when leadership is authentic, their organisational support increases, supporting our hypothesis H1 that AL significantly affects GOS (Nababan et al., [2023](#)).

Environmentally sustainable behaviour does not have an agreed-upon definition; however, in the environmental psychology literature, it is often referred to as pro-environmental behaviour, workplace environmental behaviors, or green behaviour (Bridges et al., [2008](#)). WPEB are essential for handling environmental problems and encouraging sustainable development (De Groot & Steg, [2010](#)). Although WPEB is an under-studied matter, empirical studies suggest that employee behaviour helps improve environmental performance and green innovations (Ramus & Killmer, [2007](#)). Meanwhile, GOS developed as an essential concept for assessing employee engagement in ecologically friendly practices and has considerable potential to drive organizational green transformation by

creating a supportive atmosphere that encourages employees to contribute to sustainability activities. Organisational support has a positive impact on green innovative behaviour, thus supporting our H2, which pertains to GOS and increasing WPEB.

Unlike other leaders, authentic leaders focus more prominently on performance (Braun & Nieberle, [2017](#)). Authentic leaders know who they are and what they believe and value when linked with others (Avolio & Gardner, [2005](#)). They promote positive behaviour by fostering self-awareness and self-regulation among followers (Rahimnia & Sharifirad, [2015](#)). This leadership style impacts green creative behaviour (Rego et al., [2013](#)). Therefore, authentic leaders profoundly affect WPEB in the workplace. Shahid ([2022](#)) justifies our H3 by postulating that authentic leaders are significant in WPEB.

Employees' WPEB is the primary effort to enhance organisational and creative capabilities. Organisations' primary focus is on staying competitive and addressing environmentally sustainable societal issues. Hence, this study evaluates the nexus between AL, GOS, and employees' WPEB. AL is a multi-layered concept that embraces moral perception, interpersonal transparency, and leader self-awareness (Rehman & Zeb, [2023](#)).

AL creates an open atmosphere centred around organizational values, trust, and concern that enhances ethical behaviour among employees (Luthans & Avolio, [2003](#)). Authentic leaders can also help their employees adopt eco-friendly behaviors. Moreover, research on GOS in the hospitality industry has shown optimistic effects on employees and various positive outcomes, including employee green behaviour (Aboramadan et al., [2022](#)). In an organisational setting, employees are prone to WPEB if they get support from their organizations. Organisational support is vital in shaping the behaviors of eco-friendly employees (Zhang et al., [2024](#)). Therefore, AL, GOS, and WPEB created a captivating triumvirate to promote organizational sustainability, validating our H4 that GOS mediates the relationship between AL and WPEB. The findings suggest that GOS mediates between the AL and WPEB. GOS is the basis for WPEB AL to make their green behaviors visible to their followers. Even though this is a thorough and rigorous study, certain limitations should be considered for future research. Future researchers should integrate various leadership styles to identify the most effective ways to promote environmentally responsible behaviors in the workplace.

Managerial Implications

The present study offers several suggestions to managers and professionals in the hospitality industry to improve workplace environmental behaviors (WPEB) through authentic leadership (AL). Our findings indicate that a leader's authenticity is crucial for WPEB. Therefore, hospitality organisations seeking to encourage employees to engage in green behaviors must ensure that leaders can express their true selves and provide organisational support.

The findings of this research provide managers with valuable insights into promoting WPEB, particularly when organisations seek to transform environmental challenges into opportunities through organisational support. First, the research indicates that authentic leaders should encourage WPEB among employees. Second, GOS should foster employees' green behaviour and view it as a means to harness human potential for generating creative solutions to environmental problems. Therefore, our study suggests that AL, combined with GOS, can cultivate WPEB by motivating employees and providing opportunities to realize their green potential.

Hotel management can implement various practical measures to improve ethical, sustainable, and employee-centric practices. Leadership training programs should be designed to incorporate components on authenticity, values-based decision-making, and ethical frameworks, complemented by comprehensive feedback and conflict resolution training. Organizations should implement green policies and sustainability initiatives, and provide regular training on eco-friendly practices to their employees. Employee engagement can be reinforced through well-being initiatives, stress management programs, flexible scheduling, and career development plans.

Limitations and Future Suggestions

Although this is a comprehensive and rigorous study, certain limitations should be considered for future research. Firstly, this research study is restricted to the hospitality sector in Pakistan, while future researchers should expand this study to implement its findings in diverse cultures and areas, thereby improving its information and broadening its understanding. This study is based solely on social identity theory (SIT). Future researchers are encouraged to combine SIT with other robust theories better to establish the relationships between various constructs under study. Secondly, this

research employed a cross-sectional design to examine the variables simultaneously. Future studies should consider longitudinal, lagged data, qualitative (Shahid et al., [2024](#)) or experimental designs to more accurately determine the workplace environmental behaviors (WPEB) of employees.

Moreover, the Snowball sampling method is utilized in this study. However, future researchers can employ purposive, cluster, or stratified sampling approaches to choose the sample for more broadly applicable findings. This study investigated GOS as a mediating factor between AL and WPEB. Additional mediating factors, such as green intellectual capital (Haider et al., [2025](#)), workplace spirituality, calling, environmental knowledge, and organisational support, as well as moderator variables, such as leaders' tenure and hierarchical position, can be investigated. To recognize the different independent factors, moderators, and mediators of the WPEB, succeeding researchers must perform a systematic literature review based on the methodology established by Gull et al. ([2022](#)). The future researchers should employ diverse independent variables, mediators or moderators to enrich WPEB in different industries of diverse cultures.

Conclusion

The results of the current study support that there is a significant association between green organizational support (GOS) and workplace environmental behaviors (WPEB). There is a positive relationship between authentic leadership (AL) and green organizational support (GOS), there is a significant positive relationship between authentic leadership (AL) and workplace environmental behaviors (WPEB) and green organizational support mediates the relationship between authentic leadership and workplace environmental behaviours within the hotel sector. Moreover, this study suggests imperative visions into how AL supports WPEB. It brings out the requirement for further research into diverse leadership styles and their effect on environmentally friendly behaviors and initiatives.

Thus, in a nutshell it infers that when leaders show authenticity and offer a supportive atmosphere, employees are more persuaded to contribute to environmentally friendly practices. Moreover, GOS has been known as a noteworthy element in assessing employee behavior related to eco-friendly practices, which is indispensable for the sustainable environmental future of organizations, largely in the emerging sectors of diverse cultures.

Author's Contribution:

Maryam Gull: Conceptualization, formal analysis, investigation, methodology, validation, writing – original draft, writing – review & editing. **Sobia Hassan:** Investigation, validation, writing – original draft, writing – review & editing. **Ayesha Sandhu:** Investigation, writing – original draft. **Shazia Parveen:** Validation, writing – review & editing.

Conflict of Interest

The authors of the manuscript have no financial or non-financial conflict of interest in the subject matter or materials discussed in this manuscript.

Data Availability Statement

The data associated with this study will be provided by the corresponding author upon request.

Funding Details

No funding has been received for this research.

Generative AI Disclosure Statement

The authors did not use any type of generative artificial intelligence software for this research.

References

- Aboramadan, M. S., Yousef, M., & Rasheed, A. M. (2020). Green organisational support and green behaviour: The mediating role of green voice behaviour. *Management of Environmental Quality: An International Journal*, 39(8), 1451–1471.
- Aboramadan, M., & Karatepe, O. M. (2021). Green human resource management, perceived green organisational support and their effects on hotel employees' behavioural outcomes. *International Journal of Contemporary Hospitality Management*, 33(10), 3199–3222. <https://doi.org/10.1108/IJCHM-12-2020-1440>
- Aboramadan, M., Crawford, J., Turkmenoglu, M. A., & Farao, C. (2022). Green inclusive leadership and employee green behaviors in the hotel industry: Does perceived green organizational support matter. *International Journal of Hospitality Management*, 107, Article e103330. <https://doi.org/10.1016/j.ijhm.2022.103330>
- Aboramadan, M., Kundi, Y. M., & Becker, A. (2022). Green human resource management in nonprofit organizations: effects on employee green behavior and the role of perceived green organizational support. *Personnel Review*, 51(7), 1788–1806. <https://doi.org/10.1108/PR-02-2021-0078>
- Afsar, B., Zhang, Y., & Zameer, H. (2023). Green organizational support and green behavior: The mediating role of job satisfaction and intrinsic

- motivation. *International Journal of Business and Economics*, 26(3), 87–104.
- Ahmad, J., Al Mamun, A., Masukujjaman, M., Makhbul, Z. K. M., & Ali, K. A. M. (2023). Modeling the workplace pro-environmental behavior through green human resource management and organizational culture: Evidence from an emerging economy. *Heliyon*, 9(9), Article e19134. <https://doi.org/10.1016/j.heliyon.2023.e19134>
- Al-Romeedy, B. S., & Khairy, H. A. (2024). The impact of authentic leadership on workplace bullying in the tourism and hotel industry: The mediating roles of psychological empowerment and organizational health. *Journal of Human Resources in Hospitality & Tourism*, 23(4), 561–591. <https://doi.org/10.1080/15332845.2024.2374194>
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411–423. <https://doi.org/10.1037/0033-2909.103.3.411>
- Ashforth, B. E., & Mael, F. (1989). Social identity theory and the organization. *Academy of Management Review*, 14(1), 20–39. <https://doi.org/10.5465/amr.1989.4278999>
- Avolio, B. J., & Gardner, W. L. (2005). Authentic leadership development: Getting to the root of positive forms of leadership. *The Leadership Quarterly*, 16(3), 315–338. <https://doi.org/10.1016/j.leaqua.2005.03.001>
- Avolio, B. J., Avolio, T. Y., & Judge, B. A. (2004). The 4-factor model of leadership. *Journal of Organizational Behavior*, 25(1), 161–178.
- Avolio, B. J., Sosik, J. S., Jung, D. I., & Avolio, T. Y. (2014). Multilevel and cross-level relationships of authentic leadership, ethical climate, and follower outcomes. *The Leadership Quarterly*, 25(3), 444–459.
- Avolio, B. J., Zhu, H., Sosik, J. S., & Decenzo, C. A. (2009). *Managing for meaning: Connecting with people, purpose, passion*. Jossey-Bass.
- Aziz, A., & Hussain, S. (2025). Eco-leadership: Mediation of environmental corporate social responsibility policies in promoting pro-environmental behavior. *International Journal of Ethics and Systems*.

<https://doi.org/10.1108/IJOES-12-2024-0388>

- Bai, Y., Wang, Z., Alam, M., Gul, F., & Wang, Y. (2022). The impact of authentic leadership on innovative work behavior: Mediating roles of proactive personality and employee engagement. *Frontiers in Psychology*, 13, Article e879176. <https://doi.org/10.3389/fpsyg.2022.879176>
- Bamberg, S., & Moser, G. (2007). *Pro-environmental behaviour: Predicting and changing actions with theories of reason, attitude, and habit*. Psychology Press.
- Barbuto, V., & Scholl, R. W. (2010). The relationship between authentic leadership and follower performance: A mediation model. *The Leadership Quarterly*, 21(6), 896–910.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research. conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182. <https://doi.org/10.1037/0022-3514.51.6.1173>
- Bashirun, S. N., Noranee, S., & Hasan, Z. (2025). Employee green behavior at work: Toward organizational environmental sustainability. In E. Shaffie, R. Hassan, A. K. Arshad, N. M. Bhkari, & M. N. M. Sidek (Eds.), *Sustainable Green Infrastructure: Materials and Technologies* (pp. 269–283). Springer Nature Singapore.
- Braun, S. & Nieberle, K. (2017). Authentic leadership extends beyond work: A multilevel model of work-family conflict and enrichment. *The Leadership Quarterly*, 28(6), 780–797. <https://doi.org/10.1016/j.leaqua.2017.04.003>
- Bridges, C. M., & Wilhelm, W. B. (2008). Going beyond green: The “why and how” of integrating sustainability into the marketing curriculum. *Journal of Marketing Education*, 30(1), 33–46. <https://doi.org/10.1177/0273475307312196>
- Butt, J. S. (2024). From concept to practice: Innovations driving sustainable economic development. *EIRP Proceedings*, 19(1), 181–190.
- Chen, Y., Zhou, K., Wu, Y., & Zhu, Q. (2021). Green organizational support and green innovative behavior: The mediating role of psychological empowerment. *Sustainability*, 13(13), Article e7202.

- Chua, B. L., Chi, X., Wichupankul, S., Lee, J. S., Meng, B., & Han, H. (2024). Promoting individual and organization-oriented sustainable behaviors among employees in tourism and hospitality. *Journal of Retailing and Consumer Services*, 79, Article e103822. <https://doi.org/10.1016/j.jretconser.2024.103822>
- Davis, F. D., & Venkatesh, V. (2004). Toward preprototype user acceptance testing of new information systems: Implications for software project management. *IEEE Transactions on Engineering Management*, 51(1), 31–46. <https://doi.org/10.1109/TEM.2003.822468>
- De Groot, J. I., & Steg, L. (2010). Relationships between value orientations, self-determined motivational types and pro-environmental behavioural intentions. *Journal of Environmental Psychology*, 30(4), 368–378. <https://doi.org/10.1016/j.jenvp.2010.04.002>
- Dhar, R. L. (2016). Ethical leadership and its impact on service innovative behavior: The role of LMX job autonomy. *Tourism Management*, 57, 139–148. <https://doi.org/10.1016/j.tourman.2016.05.011>
- Earley, P. C., & Erez, M. (2005). Culture and social identity theory: Linking collective knowledge to collective action. *Academy of Management Journal*, 48(1), 311–326.
- Farooq, R., Zhang, Z., Talwar, S., & Dhir, A. (2021). Do green human resource management and selfefficacy facilitate green creativity? A study of luxury hotels and resorts. *Journal of Sustainable Tourism*, 30, 1–22. <https://doi.org/10.1080/09669582.2021.1891239>
- Farrukh, M., Raza, A., & Rafiq, M. (2023). Environmentally specific, authentic leadership and team green creative behavior based on cognitive-affective path systems. *International Journal of Contemporary Hospitality Management*, 35(10), 3662–3680. <https://doi.org/10.1108/IJCHM-04-2022-0530>
- Fielding, K. S., & Hornsey, M. J. (2016). A social identity analysis of climate change and environmental attitudes and behaviors: Insights and opportunities. *Frontiers in Psychology*, 7, Article e121. <http://doi.10.3389/fpsyg.2016.00121>
- Franke, G., & Sarstedt, M. (2019). Heuristics versus statistics in discriminant validity testing: A comparison of four procedures. *Internet Research*, 29(3), 430–447. <https://doi.org/10.1108/IntR-12-2017-0515>

- Gardner, W. L., Avolio, B. J., Gorn, A. M., & House, R. J. (2011). *The conversation of leadership development: A shared learning dialogue*. Jossey-Bass.
- Gull, M., Parveen, S., & Abbas, S. (2023). Green is indeed a need: How is POES related to PEB? An empirical study in the context of the textile. *Journal of Management Info*, 10(3), 242–260. <https://doi.org/10.31580/jmi.v10i3.2864>
- Gull, M., Parveen, S., & Sridadi, A. R. (2024). Resilient higher educational institutions in a world of digital transformation. *Foresight*, 26(5), 755–774 <https://doi.org/10.1108/FS-12-2022-0186>
- Gull, M., Ahmed, A., & Warraich, I. A. (2022). Conducting a bibliometric study through a systematic literature review regarding job characteristics and work engagement. *Journal of Management and Research*, 9(2), 28–65. <https://doi.org/10.29145/jmr.92.02>
- Gull, M., Rashid, M., Hassan, S., & Rehman, S. (2024). Role of top management green commitment, adaptability culture, and green product innovation in boosting organizational green performance in Pakistan. *Research Journal of Textile and Apparel*. Advance online publication. <https://doi.org/10.1108/RJTA-12-2022-0159>
- Hadadgar, A., Changiz, T., Dehghani, Z., Backheden, M., Mirshahzadeh, N., Zary, N., & Masiello, I. (2016). A theory-based study of factors explaining general practitioners' intention to use and participation in electronic continuing medical education. *Journal of Continuing Education in the Health Professions*, 36(4), 290–294. <https://doi.org/10.1097/CEH.000000000000123>
- Haider, F., Hassan, S., & Gull, M. (2025). Linking green HRM practices to environmental performance: A moderation-mediation analysis of ethical leadership and green intellectual capital. *Journal of Social Signs Review*, 3(1), 242–283.
- Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (2019). Multivariate data analysis, multivariate data analysis. *Book*, 87(4), 611–628.
- Hair, F. J., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>

- Hameed, S. U., Khan, M. A., & Yasmeen, F. (2021). Green human resource management, green organizational support, and green creativity: A moderated mediation model. *Journal of Cleaner Production*, 316, Article e128052.
- Henriques, I. I. A. J. (2022). *Assessing the determinants of supervisor's organizational citizenship behaviors for the environment* [Master's thesis, ISCTE-Instituto Universitario de Lisboa] (Publication No. 31245740). ProQuest Dissertations & Theses.
- Henseler, J., Hubona, G., & Ray, P. A. (2016). Using PLS path modeling in new technology research: Updated guidelines. *Industrial Management and Data Systems*, 116(1), 2–20. <https://doi.org/10.1108/IMDS-09-2015-0382>
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- Huning, T. M., Hurt, K. J., & Frieder, R. E. (2020, May). The effect of servant leadership, perceived organizational support, job satisfaction and job embeddedness on turnover intentions: An empirical investigation. *Evidence-Based HRM: A Global Forum for Empirical Scholarship*, 8(2), 177–194. <https://doi.org/10.1108/EBHRM-06-2019-0049>
- Ilies, R., Morgeson, F. P., & Nahrgang, J. D. (2005). Authentic leadership and eudaemonic well-being: Understanding leader–follower outcomes. *The Leadership Quarterly*, 16(3), 373–394. <https://doi.org/10.1016/j.leaqua.2005.03.002>
- Jabbar, S., Gull, M., & Hassan, S. (2025). Building trust: Investigating the nexus between organizational justice, commitment, and citizenship behavior. *Journal of Management & Social Science*, 2(1), 1–20.
- Javed, M., Nisar, Q. A., Awan, A., & Nasir, U. (2024). Environmentally specific servant leadership and workplace pro-environmental behavior: A dual mediation in context of hotel industry. *Journal of Cleaner Production*, 446, Article e141095. <https://doi.org/10.1016/j.jclepro.2024.141095>
- Jun, K., Hu, Z., & Lee, J. (2025). Unlocking the relationship between

- authentic leadership and organizational citizenship behavior: The key roles of organizational support and identification. *Management Research Review*, 48(1), 57–77. <https://doi.org/10.1108/MRR-09-2023-0662>
- Khan, M. A., Khan, H., & Khan, M. M. (2022). Green organizational support and employee green behavior: The mediating role of intrinsic motivation and organizational commitment. *Environmental Science and Pollution Research*, 1–18.
- Khatter, A., White, L., Pyke, J., & McGrath, M. (2021). Barriers and drivers of environmental sustainability: Australian hotels. *International Journal of Contemporary Hospitality Management*, 33(5), 1830–1849. <https://doi.org/10.1108/IJCHM-08-2020-0929>
- Kim, Y. J., Kim, W. G., Choi, H. M., & Phetvaroon, K. (2019). The effect of green human resource management on hotel employees' eco-friendly behavior and environmental performance. *International Journal of Hospitality Management*, 76(2018), 83–93. <https://doi.org/10.1016/j.ijhm.2018.04.007>
- Kline, R. B. (2016). *Principles and practice of structural equation modeling*. Guilford Press.
- Kurtessis, J. N., Eisenberger, R., Ford, M. T., Buffardi, L. C., Stewart, K. A., & Adis, C. S. (2017). Perceived organizational support: A meta-analytic evaluation of organizational support theory. *Journal of management*, 43(6), 1854–1884. <https://doi.org/10.1177/0149206315575554>
- Lee, K., Wayne, S. J., Park, J., & Howell, J. M. (2011). Authentic leadership, psychological ownership, and employee creativity: The mediating role of intrinsic motivation. *The Leadership Quarterly*, 22(4), 640–651
- Lenzen, M., Sun, Y. Y., Faturay, F., Ting, Y. P., Geschke, A., & Malik, A. (2018). The carbon footprint of global tourism. *Nature Climate Change*, 8(6), 522–528. <https://doi.org/10.1038/s41558-018-0141-x>
- Luthans, F., & Avolio, B. (2003). Authentic leadership development. In *Positive Organizational Scholarship* (241–261). Berrett-Koehler Publishers.

- Nababan, E., & Indrajaya, A. N. (June 16–18, 2023). *The mediating effect of perceived organizational support on the influence of authentic leadership toward turnover intention in Generation Z* [Paper presentation]. International CEO Communication, Economics, Organization & Social Sciences Congress, USA.
- Nadeem, R., Singh, R., Patidar, A., Yusliza, M. Y., Ramayah, T., & Azmi, F. T. (2025). Prioritizing determinants of employees' green behavior in the Indian hotel industry: an analytic hierarchy process (AHP) and fuzzy AHP approach. *Journal of Hospitality and Tourism Insights*. <https://doi.org/10.1108/JHTI-07-2024-0737>
- Naqvi, S. H. B., Salman, Y., Hassan, S., Gull, M., & Capraz, K. (2024). The role of administrative discretion in the coping behaviour of street-level bureaucrats in higher education institutions of Pakistan. *Journal of Humanities, Social and Management Sciences*, 5(1), 135–159. <https://doi.org/10.47264/idea.jhsms/5.1.8>
- Nguyen, P. N. D., Tran, C. Q., & Do, T. T. T. (2024). Green human resource management and employee pro-environmental behaviors: The role of individual green value. *Ho Chi Minh City Open University Journal Of Science-Economics And Business Administration*, 14(2), 45–63. <https://doi.org/10.46223/HCMCOUJS.econ.en.14.2.3129.2024>
- Paillé, P., & Meija-Morelos, J. H. (2019). Organizational support is not always enough to encourage employee environmental performance. The moderating role of exchange ideology. *Journal of Cleaner Production*, 220, 1061–1070. <https://doi.org/10.1016/j.jclepro.2019.02.192>
- Patwary, A. K., Zulkefli, N. S., Ahmed, Z., Abuelhassan, A. E., Raza, S. A., & Sumethokul, P. (2025). Sustainable leadership in the hospitality industry: An integrated approach to green practices. *International Journal of Hospitality & Tourism Administration*, 1–21. <https://doi.org/10.1080/15256480.2025.2486447>
- Peterson, R. A. (1994). A meta-analysis of Cronbach's coefficient alpha. *Journal of Consumer Research*, 21(2), 381–391.
- Rahimnia, F., & Sharifirad, M. S. (2015). Authentic leadership and employee well-being: The mediating role of attachment insecurity. *Journal of Business Ethics*, 132(2), 363–377.
- Ramayah, T. J. F. H., Cheah, J., Chuah, F., Ting, H., & Memon, M. A.

- (2018). *Partial least squares structural equation modeling (PLS-SEM) using smartPLS 3.0. An Updated Guide and Practical Guide to Statistical Analysis*. Pearson.
- Ramus, C. A., & Killmer, A. B. (2007). Corporate greening through prosocial extrarole behaviours—a conceptual framework for employee motivation. *Business Strategy and the Environment*, 16(8), 554–570. <https://doi.org/10.1002/bse.504>
- Raza, S. A., & Khan, K. A. (2022). Impact of green human resource practices on hotel environmental performance: The moderating effect of environmental knowledge and individual green values. *International Journal of Contemporary Hospitality Management*, 34(6), 2154–2175. <https://doi.org/10.1108/IJCHM-05-2021-0553>
- Rego, A., Vitória, A., Magalhães, A., Ribeiro, N., & Cunha, M. P. (2013). Are authentic leaders associated with more virtuous, committed and potent teams? *The Leadership Quarterly*, 24(1), 61–79. <https://doi.org/10.1016/j.leaqua.2012.08.002>
- Rehman, F. U., & Zeb, A. (2023). Investigating the nexus between authentic leadership, employees' green creativity, and psychological environment: Evidence from emerging economy. *Environmental Science and Pollution Research*, 30(49), 107746–107758. <https://doi.org/10.1007/s11356-023-29928-1>
- Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology*, 87(4), 698–714. <https://doi.org/10.1037/0021-9010.87.4.698>
- Robertson, J. L., & Barling, J. (2013). Greening organizations through leaders' influence on employees' pro-environmental behaviors. *Journal of Organizational Behavior*, 34(2), 176–194. <https://doi.org/10.1002/job.1820>
- Robertson, J. L., & Barling, J. (2017). Toward a new measure of organizational environmental citizenship behavior. *Journal of Business Research*, 75, 57–66. <https://doi.org/10.1016/j.jbusres.2017.02.007>
- 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>

- Rubel, M. R. B., Kee, D. M. H., & Rimi, N. N. (2025). Unpacking the eco-friendly path: exploring organizational green initiatives, green perceived organizational support and employee green behavior. *International Journal of Contemporary Hospitality Management*, 37(6), 2049–2071. <https://doi.org/10.1108/IJCHM-03-2024-0460>
- Sarstedt, M., Ringle, C. M., Smith, D., Reams, R., & Hair, J. F. (2014). Partial least squares structural equation modeling (PLS-SEM): A useful tool for family business researchers. *Journal of Family Business Strategy*, 5(1), 105–115. <https://doi.org/10.1016/j.jfbs.2014.01.002>
- Schlapp, P. M., Rojon, C., & Schwarz, S. (2025). The impact of organizational support and individual green values on pro-environmental behavior in the workplace. *Corporate Social Responsibility and Environmental Management*, 32(5), 6897–6911. <https://doi.org/10.1002/csr.70060>
- Shahid, M. (2022). *Authentic leadership and pro environmental behavior of employees: the mediating role of environmental awareness* [Doctoral dissertation]. COMSATS University Lahore.
- Shahid, Z., Hanif, A., Naqvi, S. H. B., Hassan, S., & Gull, M. (2024). Role of collaborative governance towards crisis management: A case study of Provincial Disaster Management Authority (PDMA). *Journal of Public Policy Practitioners*, 3(1), 121–147. <https://doi.org/10.32350/jppp.31.06>
- Sharma, S., & Bansal, P. (2012). How does corporate social responsibility influence institutional investors' cognitive legitimacy judgments? A contingency perspective. *Strategic Management Journal*, 33(6), 657–679.
- Srivastava, A. P., Mani, V., Yadav, M., & Joshi, Y. (2020). Authentic leadership towards sustainability in higher education—an integrated green model. *International Journal of Manpower*, 41(7), 901–923. <https://doi.org/10.1108/IJM-08-2019-0404>
- Steg, L., & Vlek, C. (2009). Encouraging pro-environmental behaviour: An integrative review and research agenda. *Journal of Environmental Psychology*, 29(3), 309–317. <https://doi.org/10.1016/j.jenvp.2008.10.004>

- Taber, K. S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education*, 48(6), 1273–1296. <https://doi.org/10.1007/s11165-016-9602-2>
- Tosun, C., Parvez, M. O., Bilim, Y., & Yu, L. (2022). Effects of green transformational leadership on green performance of employees via the mediating role of corporate social responsibility: Reflection from North Cyprus. *International Journal of Hospitality Management*, 103, Article e103218. <https://doi.org/10.1016/j.ijhm.2022.103218>
- Volio, B. J., Avolio, T. Y., & Judge, B. A. (2004). The 4-factor model of leadership. *Journal of Organizational Behavior*, 25(1), 161–178.
- Walumbwa, F. O., Avolio, B. J., Gardner, W. L., Wernsing, T. S., & Peterson, S. J. (2008). Authentic leadership: Development and validation of a theory-based measure. *Journal of Management*, 34(1), 89–129. <https://doi.org/10.1177/0149206307308913>
- Wang, Y., Fang, Y., Wu, Z., & Wang, F. (2023). Exploring the impact of green organizational support dimensions on employee green behavior: A moderated mediation model. *Journal of Cleaner Production*, 379, Article e134516.
- Wong, K. K.-K. (2013). Partial least squares structural equation modeling (PLS-SEM) techniques using SmartPLS. *Marketing Bulletin*, 24(1), 1–32.
- Zhang, Y., Wu, J., & Fan, Y. (2022). The effect of perceived organizational support toward the environment on team green innovative behavior: Evidence from Chinese green factories. *Emerging Markets Finance and Trade*, 58(8), 2326–2341. <https://doi.org/10.1080/1540496X.2021.1977121>
- Zhang, Y., Dong, Y., Wang, R., & Jiang, J. (2024). Can organizations shape eco-friendly employees? Organizational support improves pro-environmental behaviors at work. *Journal of Environmental Psychology*, 93, Article e102200. <https://doi.org/10.1016/j.jenvp.2023.102200>