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Abusive Leadership and Non-Green Behavior in the Hospitality and Tourism Sector in Egypt: A Moderated Mediation Model of Psychological Withdrawal and Resilience

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ABSTRACT

This study investigates how abusive leadership fosters non-green behavior among employees in the hospitality and tourism sector, emphasizing the mediating role of psychological withdrawal and the moderating role of psychological resilience. Drawing on Conservation of Resources (COR) theory, the research explores how resource-draining supervisory behaviors impair employee engagement and diminish pro-environmental conduct. Data were collected from 430 employees working in five-star hotels and category-A travel agencies across the Greater Cairo region of Egypt. Partial least squares structural equation modeling (PLS-SEM) was applied using WarpPLS to analyze the proposed moderated mediation model. Results reveal that abusive leadership significantly increases psychological withdrawal, which in turn leads to higher levels of non-green behavior. Moreover, psychological withdrawal mediates the relationship between abusive leadership and non-green behavior. Importantly, psychological resilience moderates the link between abusive leadership and psychological withdrawal, buffering the negative effects. These findings contribute to a deeper understanding of the psychological mechanisms behind environmentally harmful behavior in tourism settings and highlight the value of fostering resilience to mitigate supervisory toxicity.

KEYWORDS

Abusive leadership, non-green behavior, psychological withdrawal, psychological resilience, hospitality and tourism sector.

القيادة التعسفية والسلوك غير الأخضر في قطاع الضيافة والسياحة بمصر: نموذج وساطة-معدل للانسحاب النفسي والمرونة النفسية

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الملخص

تهدف هذه الدراسة إلى استكشاف كيفية تعزيز القيادة التعسفية للسلوك غير الأخضر بين العاملين في قطاع الضيافة والسياحة، مع التركيز على الدور الوسيط للانسحاب النفسي والدور المعدّل للمرونة النفسية. واستنادًا إلى نظرية حفظ الموارد (COR)، تبحث الدراسة في كيفية إضعاف السلوكيات الاستنزافية للموارد من جانب القادة لالتزام الموظفين، مما يقلل من انخراطهم ويضعف سلوكهم البيئي الإيجابي. تم جمع البيانات من (430) موظفًا يعملون في فنادق خمس نجوم ووكالات سفر من الفئة (أ) في منطقة القاهرة الكبرى بمصر. تم تطبيق (PLS-SEM) باستخدام برنامج WarpPLS لتحليل نموذج البحث المقترح. تكشف النتائج أن القيادة التعسفية تزيد بشكل ملحوظ من الانسحاب النفسي، والذي يؤدي بدوره إلى مستويات أعلى من السلوك غير الأخضر. علاوة على ذلك، يتوسط الانسحاب النفسي العلاقة بين القيادة التعسفية والسلوك غير الأخضر. والأهم من ذلك أن المرونة النفسية تعدل العلاقة بين القيادة التعسفية والانسحاب النفسي، مما يخفف من الآثار السلبية. تسهم هذه النتائج في تعميق الفهم للآليات النفسية الكامنة وراء السلوكيات الضارة بيئيًا في بيئات السياحة والضيافة، وتبرز قيمة تعزيز المرونة النفسية للتقليل من سمّية الإشراف السيء للقادة بمؤسسات السياحة والفنادق.

الكلمات الدالة

القيادة التعسفية، السلوك غير الأخضر، الانسحاب النفسي، المرونة النفسية، قطاع الضيافة والسياحة.

Introduction

The hospitality and tourism industry is under growing scrutiny to implement environmentally sustainable practices, given its substantial resource consumption and visible environmental impact (Khatter, 2023; García et al., 2024). While organizations actively implement green policies, such as recycling campaigns and energy-saving protocols, these efforts often succeed only when employee voluntarily adopt and reinforce sustainability behaviors (Abedelrahim et al., 2024). Employees' willingness to engage in pro-environmental behavior is particularly crucial in service-oriented contexts, where sustainable practices directly influence operational efficiency and the industry's reputation (Kim et al., 2019; Nisar et al., 2022). However, despite the strategic importance of green behaviors, employees frequently disengage from such practices, leading to counterproductive environmental outcomes in hospitality operations (Ikhide et al., 2024; Elshaer et al., 2025).

Leadership is a key determinant of employees' behavioral alignment with organizational sustainability goals. While supportive leadership styles have been widely shown to encourage green commitment and innovative work behaviors (Al-Rommedy et al., 2025; Jameel et al., 2025), negative leadership dynamics remain underexplored in this domain. Abusive leadership, characterized by sustained hostile verbal and non-verbal behaviors, erodes employees' psychological resources and undermines workplace well-being (Tepper et al., 2017). Within the framework of Conservation of Resources (COR) theory (Hobfoll et al., 2018), such resource-draining supervisory practices are likely to compel employees to conserve their remaining psychological energy by disengaging from non-mandatory tasks, such as voluntary sustainability-oriented actions (Li, 2025). Yet, empirical research linking abusive leadership to environmentally harmful behaviors in hospitality settings remains limited (AlZgool et al., 2023; Raza et al., 2023; Salama et al., 2025), representing a significant gap in the literature.

One plausible mechanism explaining this relationship is psychological withdrawal, a self-protective strategy through which employees mentally disengage from work to shield themselves from further harm (Chu & Chou, 2024). Although withdrawal may protect employees' short-term well-being, it reduces involvement in core work activities and undermines service quality (Yan et al., 2021). Extending this logic, withdrawal may also disconnect employees from pro-environmental initiatives, thereby transmitting the negative effects of abusive supervision into environmentally detrimental behavior. Despite this theoretical plausibility, few studies have examined psychological withdrawal as a mediator between abusive leadership and non-green behavior, especially in labor-intensive service sectors such as hospitality and tourism (i.e. Wang & Xiao, 2022; Gip et al., 2024).

At the same time, employees differ in their ability to withstand the negative consequences of abusive leadership. Psychological resilience, defined as the capacity to adapt positively to adversity, may serve as a personal resource that buffers the harmful effects of supervisory abuse (Dai et al., 2019; Bani-Melhem et al., 2021). Evidence suggests that resilient employees are better able to maintain engagement and resist stressors in demanding service environments (Bani-Melhem et al., 2021). However, the moderating role of resilience in shaping the relationship between

abusive leadership, withdrawal, and non-green behavior has not been adequately investigated, particularly in hospitality and tourism contexts where emotional labor demands are high.

Against this backdrop, the present study addresses two critical gaps in literature. First, it extends the understanding of how abusive leadership undermines environmental sustainability in the workplace by examining non-green behavior as a key outcome in hospitality and tourism. Second, it unpacks the psychological mechanism of this process by testing the mediating role of psychological withdrawal and the moderating role of psychological resilience within the COR framework. To this end, data were collected from employees in five-star hotels and category-A travel agencies in Egypt, a context where sustainability has become increasingly important but employee-driven green practices remain inconsistent (Al-Romeedy et al., 2025; Khairy & Badwy, 2025).

By integrating destructive leadership research with sustainability behavior, this study makes three key contributions. It highlights abusive leadership as a critical barrier to organizational green goals, identifies psychological withdrawal as a central mechanism linking supervisory toxicity to non-green behavior, and underscores resilience as a vital resource in buffering these adverse effects. Collectively, these contributions provide new insights into how psychological dynamics shape sustainability outcomes in hospitality and tourism.

Literature review and hypotheses development

Underpinning theory

The proposed research model is most effectively grounded in Conservation of Resources (COR) theory (Hobfoll, 1989), which emphasizes that individuals strive to acquire, retain, and protect valuable resources such as energy, psychological well-being, and resilience. Abusive supervision acts as a significant resource-depleting stressor that erodes employees' emotional and psychological reserves, prompting them to engage in psychological withdrawal as a defensive strategy to conserve remaining resources (Yuan et al., 2020). This withdrawal, however, reduces employees' willingness and capacity to participate in environmentally responsible practices, thereby fostering non-green behavior in the workplace. Within this framework, psychological resilience is conceptualized as a personal resource (Fletcher & Sarkar, 2013) that can buffer the harmful impact of abusive supervision, mitigating the extent to which employees resort to withdrawal. Thus, COR theory provides a coherent explanation of the mediation and moderation mechanisms in the proposed model by highlighting how resource loss drives counterproductive outcomes, and how resource availability shapes employees' adaptive responses.

Hypotheses development

Abusive supervision refers to supervisors' sustained display of hostile verbal and non-verbal behaviors, excluding physical contact, which often vary on a daily basis and communicate a lack of dignity and respect toward employees (Barnes et al., 2015). When exposed to such treatment, employees frequently perceive injustice, ridicule, or improper behavior, and as a result, they may retaliate by withholding discretionary contributions such as organizational citizenship behaviors (He et al., 2021). Within the

environmental domain, organizational citizenship behavior for the environment is similarly shaped by supervisory treatment. Supportive leaders tend to foster employees' willingness to act responsibly toward environmental issues, whereas unsupportive or abusive supervisors discourage such engagement, leading employees to withhold organizational citizenship behaviors for environment (Wang & Xiao, 2022). Consequently, abusive supervision, as a distinctly hostile and non-supportive leadership style, erodes employees' motivation to participate in pro-environmental behaviors at work (Wang & Xiao, 2022).

Drawing on Conservation of Resources (COR) theory (Hobfoll, 1989), employees are motivated to acquire, maintain, and protect valuable resources, including emotional energy, self-esteem, and supportive social interactions. Abusive leadership—marked by hostility, public criticism, and ridicule—creates a climate of resource depletion, undermining individuals' emotional stability and diminishing their sense of psychological safety (Salama et al., 2025). Such hostile supervisory behavior diverts employees' attention toward self-preservation and coping strategies rather than investing in discretionary efforts that benefit the organization (Wheeler et al., 2013; Jasim et al., 2024). Importantly, engaging in environmentally responsible practices typically requires additional resources in the form of cognitive focus, emotional regulation, proactive initiative, and concern for collective well-being (Carter, 2011; Khairy et al., 2025a). When resources are drained due to abusive supervision (Yuan et al., 2020), employees are less willing to allocate the extra energy required for such green initiatives, and instead may disengage from or even resist them.

In this way, abusive leadership contributes to the emergence of non-green behaviors, as employees prioritize conserving their limited psychological resources over expending them on voluntary environmental actions (Wang & Xiao, 2022; Salama et al., 2025). Taken together, these arguments establish a strong rationale for expecting a positive relationship between abusive leadership and employees' non-green behavior. Consequently, the following hypothesis is formulated:

H1: Abusive leadership increases employees' non-green behavior.

Abusive supervisors who sustained hostile verbal and nonverbal behavior (Tepper, 2000) has been consistently linked to negative outcomes such as turnover intention, deviance, and counterproductive work behaviors (Huang et al., 2020; Mackey et al., 2021). As a persistent social stressor, abusive supervision can be viewed as a chronic job demand that continuously drains employees' psychological resources (Huang et al., 2020). In response to this strain, employees often resort to psychological withdrawal behaviors—including daydreaming, chatting, or mentally disengaging from tasks (Einarsen et al., 2018)—to minimize psychological costs and preserve their remaining resources (Lehman & Simpson, 1992; Huang et al., 2020). Indeed, prior studies confirm that employees who perceive mistreatment are more likely to withdraw psychologically, suggesting that abusive supervision heightens the risk of disengagement (Huang et al., 2020).

Conservation of Resources (COR) theory (Hobfoll, 1989) provides a useful lens for explaining this dynamic. COR theory posits that when individuals face actual or threatened losses of valuable resources—such as respect, dignity, or social support—they adopt defensive strategies to protect what remains. Abusive leadership, through

ridicule, belittling, or hostile supervisory behavior, depletes employees' emotional reserves and erodes their psychological safety (Liang & Brown, 2016; Powell, 2020). This sustained resource depletion intensifies stress and insecurity, driving employees to disengage psychologically as a coping mechanism. Psychological withdrawal thus reflects reduced cognitive involvement, diminished enthusiasm, and lowered mental investment in work tasks (Sagie et al., 2002). From a stressor–strain perspective, such withdrawal serves to shield employees from further emotional harm, albeit at the expense of workplace engagement (Huang et al., 2020). In the hospitality and tourism context, where proactive service behaviors and mental presence are critical, abusive supervision further undermines employees' willingness to stay engaged and committed (Lyu et al., 2016; Salama et al., 2025). Therefore, grounded in COR theory and prior empirical evidence, it is proposed that:

H2: Abusive leadership increases employees' psychological withdrawal.

Psychological withdrawal reflects a state in which employees mentally distance themselves from their work, investing minimal effort, attention, and emotional energy in organizational goals (Sagie et al., 2002; Aggarwal et al., 2020). According to COR theory, individuals experiencing resource depletion often conserve what little remains by reducing their discretionary engagement in non-mandatory tasks (Hobfoll, 1989). Pro-environmental practices in hospitality, such as conserving energy, recycling, or adopting green service behaviors, typically require extra effort, mindfulness, and voluntary commitment (Dharmesti et al., 2020, Al-Romeedy et al., 2025). When employees are psychologically withdrawn, they lack the cognitive and motivational resources needed to sustain such behaviors (Mishra, 2022; Zimmerman et al., 2016). Instead, they may ignore or avoid environmentally responsible practices, thereby displaying non-green behavior. This aligns with the stressor–strain–outcome perspective, where psychological withdrawal acts as a strain reaction that translates into counterproductive or neglectful behaviors (Taris et al., 2001; Zimmerman et al., 2016). Hence, withdrawal not only reduces service quality but also undermines organizational sustainability efforts (Saleh & Elsokkary, 2025), making it reasonable to expect that higher withdrawal leads directly to more non-green behavior. Consequently, the following hypothesis is formulated:

H3: Psychological withdrawal increases employees' non-green behavior.

In addition, the mediating role of psychological withdrawal between abusive leadership and non-green behavior can also be understood through COR theory. Abusive supervision drains employees' emotional and psychological resources, creating a sense of exhaustion and helplessness (Wheeler et al, 2013). To cope, employees disengage from their roles by withdrawing mentally from work demands (Huang et al., 2020). This withdrawal subsequently diminishes their willingness and ability to engage in discretionary behaviors (Zimmerman et al., 2016) like green behaviors. Without sufficient psychological investment, employees may neglect environmentally friendly practices, resulting in increased non-green behavior (Al-Romeedy et al., 2025; Khairy et al., 2025). Thus, the pathway from abusive leadership to non-green conduct is not necessarily direct; rather, it operates through employees' psychological withdrawal as an intermediate mechanism. By framing this process within the resource loss spiral in COR theory—where initial losses (from abusive

treatment) set off further losses (withdrawal leading to counterproductive or neglectful outcomes)—this mediation pathway provides a theoretically grounded explanation of how supervisory abuse ultimately undermines organizational sustainability goals. Consequently, the following hypothesis is formulated:

H4: Psychological withdrawal mediates the relationship between abusive leadership and employees' non-green behavior.

Lastly, psychological resilience, defined as the capacity to adapt positively and recover from adversity, represents a vital personal resource (Fletcher & Sarkar, 2013) that can buffer the negative effects of abusive leadership. COR theory emphasizes that individuals are not equally vulnerable to resource loss; those with greater personal resources are better positioned to withstand stressors. When faced with abusive supervision, resilient employees are more likely to reframe negative experiences, seek adaptive coping strategies, and maintain their psychological engagement (Finstad et al., 2021; Khairy et al., 2025b). This reduces the extent to which resource-draining behaviors from supervisors translate into withdrawal. Conversely, employees with low resilience are less equipped to cope with such stress, making them more likely to disengage (Black et al., 2017; Rastogi et al., 2018). In other words, resilience functions as a resource reservoir that moderates the stressor–strain link: high resilience weakens the relationship between abusive leadership and psychological withdrawal, while low resilience strengthens it. This aligns with COR's principle of resource caravans, suggesting that individuals with rich personal resources (e.g., resilience) can better protect themselves against resource depletion and its consequences. Consequently, the following hypothesis is formulated:

H5: Psychological resilience moderates the relationship between abusive leadership and psychological withdrawal.

The theoretical framework of the study is illustrated below in Figure (1).

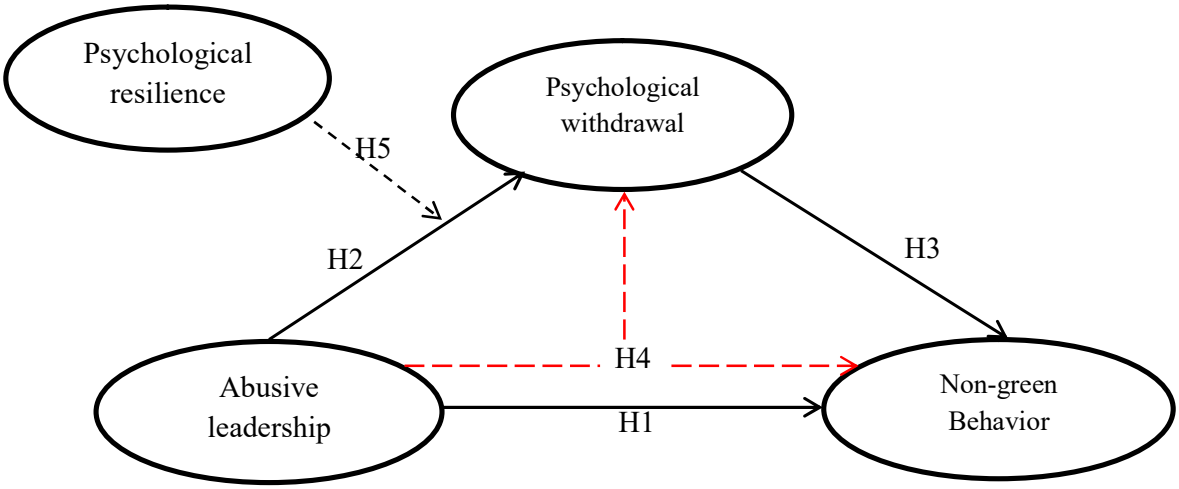

Figure (1): The theoretical framework of the study.

Research methodology

Measures

The study employed measurement items derived from widely recognized and validated scales in the existing literature. Abusive leadership was measured using a five-item scale adapted from Tepper (2000) and Mitchell and Ambrose (2007), including items such as 'My leader tells me I'm incompetent' and 'My leader puts me down in front of others'. Non-green behavior was assessed with a five-item scale developed by Paillé et al. (2019), with sample statements like 'In the workplace, I do not care about the consumption of water or electricity' and 'At work, I let others worry about environmental protection'. Psychological withdrawal was captured through an eight-item scale from Lehman and Simpson (1992), with examples including 'I have thoughts of missing work' and 'I talk to my colleagues about non-work-related topics'. Lastly, psychological resilience was evaluated using six items from Smith et al. (2008), such as 'I tend to bounce back quickly after hard times' and 'It does not take me long to recover from a stressful event'.

To establish content validity, a pilot test was conducted with 20 participants, including three academic experts, three industry professionals, and fourteen employees. Their feedback was used to refine clarity and ensure contextual relevance; however, the wording of the original items remained unchanged. All constructs were assessed using a five-point Likert scale (1 = 'Strongly disagree' to 5 = 'Strongly agree'), a format selected for its simplicity and consistency with prior studies on organizational behavior and environmental practices.

Sample and data collection procedures

Five-star hotels and category-A travel agencies were chosen as the research context because they represent the most resource-intensive and environmentally impactful segments of the Egyptian hospitality and tourism industry. Employees in these establishments are frequently involved in service delivery processes that directly affect energy consumption, water usage, waste generation, and overall sustainability practices. As such, their workplace behaviors have significant implications for environmental outcomes. Furthermore, five-star hotels and leading travel agencies operate under high performance and customer service pressures, which often intensify employee–supervisor interactions. This makes them an appropriate setting to investigate how abusive leadership depletes psychological resources (as explained by COR theory) and, in turn, fosters counterproductive outcomes such as psychological withdrawal and non-green behaviors. Another reason for this choice is that these establishments typically maintain formal organizational structures and HR systems, where leadership behaviors are more visible and influential compared to smaller or less formalized businesses. This strengthens the relevance of studying leadership-driven dynamics in shaping employee attitudes and behaviors.

Data collection was conducted using structured survey questionnaires during June and July 2025, which were first submitted to the HR departments of the participating organizations for approval. Following managerial consent, the questionnaires were distributed directly to employees on-site. Participation was entirely voluntary, and strict confidentiality was maintained throughout the process. According to the 2022

records of the Egyptian Ministry of Tourism and Antiquities, the Greater Cairo region includes 1,666 category-A travel agencies and 30 five-star hotels. From this population, data were gathered from employees in 22 five-star hotels and 55 category-A travel agencies. A judgmental sampling approach was applied to select the organizations, while convenience sampling was employed to recruit employees who agreed to take part. Verbal approval from managers preceded the administration of the surveys, and participants were informed that completing the questionnaire indicated their consent. Ethical safeguards and anonymity were upheld at all stages of the study. In total, 430 valid responses were collected—172 (40%) from travel agencies and 258 (60%) from five-star hotels—exceeding the minimum required sample size of 240 respondents, as recommended by Hair et al. (2010) based on a 1:10 ratio of estimated parameters to observations. This sample size was deemed adequate for conducting reliable statistical analyses.

Data analysis

To examine the study's hypotheses and assess the proposed conceptual framework, Partial Least Squares Structural Equation Modeling (PLS-SEM) was conducted using WarpPLS software. PLS-SEM was selected because it is well-suited for predictive research that emphasizes the exploration of relationships among variables, particularly in contexts where theoretical development is still evolving. Compared to covariance-based SEM, this approach is more flexible in accommodating smaller to medium sample sizes, is less restrictive with respect to data distribution assumptions, and provides a robust means of analyzing complex models.

Results

Participants' profile

Table 1 presents the demographic profile of the study participants (N = 430). The sample is predominantly male (68.84%), while females constitute about one-third (31.16%). In terms of age distribution, the largest group of respondents is under 30 years old (42.79%), followed by those between 30 and 45 years (33.95%), and participants over 45 years (23.26%). Regarding educational attainment, most participants hold a bachelor's degree (76.74%), whereas smaller proportions reported completing high school (10.70%) or holding a postgraduate qualification such as a master's or PhD (12.56%). To guarantee reliable and informed responses, only employees with a minimum of one year of work experience were considered. This aligns with Morrison's (1993) view that workers typically gain adequate familiarity with organizational culture within their first six months.

Table 1: Participant's profile (N=430).

		Frequency	Percent
Gender	Male	296	68.84
	Female	134	31.16
Age	18:< 30 years	184	42.79
	30 : 45 years	146	33.95
	>45	100	23.26
Education	High schools	46	10.70
	Bachelor	330	76.74
	Master/PhD	54	12.56

Measurement model

Appendix (A) summarizes the model fit and quality indices for the structural equation model according to Kock (2021) model fit criteria. The results indicate that the model demonstrates an acceptable overall fit. APC=0.231, p = 0.002, ARS=0.158, p=0.016, and AARS=0.145, p=0.022 are all statistically significant, confirming the explanatory power of the model. Multicollinearity concerns are minimal, as both the average block VIF (1.332) and the average full collinearity VIF (1.505) fall well below the recommended thresholds. The GoF (0.323) indicates a medium-to-large effect size. Additionally, indices assessing model robustness—such as the Sympson's paradox ratio (1.000), R-squared contribution ratio (1.000), statistical suppression ratio (1.000), and nonlinear bivariate causality direction ratio (0.750)—all meet or exceed the acceptable criteria. Collectively, these results confirm that the model is statistically sound, free from major estimation issues, and appropriate for hypothesis testing.

Table 2 presents the psychometric properties of the study constructs. All constructs demonstrated acceptable reliability and validity. The indicator loadings were above the recommended threshold of 0.60, confirming strong item representation for their respective constructs. Composite reliability (CR) values ranged between 0.828 and 0.950, while Cronbach's alpha (CA) values were above 0.70 across all constructs, indicating high internal consistency. The average variance extracted (AVE) values exceeded 0.50, supporting convergent validity by showing that a substantial proportion of variance is captured by each construct. Additionally, variance inflation factor (VIF) values ranged from 1.243 to 1.874, which are well below the critical cutoff of 3.3, suggesting no multicollinearity issues. Overall, the results confirm that the measurement model is both reliable and valid, providing a strong foundation for subsequent structural model analysis.

Table 2: Results of psychometric properties

Construct	Indicators	Loading	CR	CA	AVE	VIF
Abusive leadership (AL)	AL-1	(0.717)	0.828	0.740	0.519	1.284
	AL-2	(0.763)				
	AL-3	(0.677)				
	AL-4	(0.755)				
	AL-5	(0.688)				
Non-green behavior (NGB)	NGB-1	(0.703)	0.870	0.813	0.573	1.656
	NGB-2	(0.772)				
	NGB-3	(0.749)				
	NGB-4	(0.758)				
	NGB-5	(0.800)				
Psychological withdrawal (PW)	PW-1	(0.844)	0.950	0.940	0.705	1.243
	PW-2	(0.831)				
	PW-3	(0.832)				
	PW-4	(0.841)				
	PW-5	(0.888)				
	PW-6	(0.873)				
	PW-7	(0.810)				
	PW-8	(0.792)				
Psychological resilience (PR)	PR-1	(0.805)	0.863	0.805	0.578	1.874
	PR-2	(0.635)				
	PR-3	(0.677)				
	PR-4	(0.787)				

	PR-5	(0.834)				
	PR-6	(0.804)				
"CR: Composite reliability; CA: Cronbach's alpha; AVE: average variance extracted; VI nce inflation factors ".						

Table 3 displays the correlations among the latent variables along with the square root of the average variance extracted (AVE) for each construct. The diagonal values (bolded) represent the square roots of AVEs, all of which are greater than the corresponding inter-construct correlations. This confirms discriminant validity, as each construct shares more variance with its own indicators than with other constructs.

Table 3: Correlations among latent variables with the square root of AVEs

Construct	AL	NGB	PW	PR
Abusive leadership (AL)	**0.720**			
Non-green behavior (NGB)	0.166	**0.757**		
Psychological withdrawal (PW)	0.328	0.347	**0.839**	
Psychological resilience (PR)	0.376	0.565	0.266	**0.760**

Table 4 presents the Heterotrait-Monotrait ratio (HTMT) values to assess discriminant validity among the constructs. All HTMT values are below the recommended threshold of 0.85, indicating that the constructs are empirically distinct. The highest HTMT value appears between psychological resilience (PR) and non-green behavior (NGB) (0.681), suggesting a relatively stronger association compared to other pairs, but still within the acceptable limit. These results further confirm that the measurement model demonstrates adequate discriminant validity.

Table 4: Discriminant validity (HTMT)

Construct	AL	NGB	PW	PR
Abusive leadership (AL)				
Non-green behavior (NGB)	0.268			
Psychological withdrawal (PW)	0.397	0.396		
Psychological resilience (PR)	0.521	0.681	0.312	

Multi-group analysis

Table 5 shows the results of the multigroup analysis (MGA) comparing five-star hotels and travel agencies. The analysis examined whether the structural relationships differ significantly between the two groups. Overall, the MGA results suggest that the structural relationships operate consistently across hotels and travel agencies, with no evidence of significant group-specific variations.

Table 5: Multigroup analysis results

Relationship	Path coeff. (Five-Star Hotel)	Path coef. (Travel Agency)	Absolute path coeff. Diff.	p-value (one-tailed)	Decision
AL →NGB	0.281	0.218	0.063	0.483	Not Supported
AL →PW	0.297	0.143	0.154	0.171	Not Supported
PW →NGB	0.326	0.312	0.014	0.465	Not Supported
PW*PR → NGB	-0.210	-0.220	0.010	0.476	Not Supported

Structural model and hypotheses testing

Table 6 presents the results of hypothesis testing for both direct and moderating relationships. The findings confirm that abusive leadership (AL) significantly predicts both non-green behavior (NGB) (β = 0.18, p = 0.02) and psychological withdrawal (PW) (β = 0.22, p < 0.01). Additionally, PW shows a significant relationship with NGB (β = 0.32, p < 0.01), indicating that employees' withdrawal tendencies contribute to environmentally unfriendly behaviors. The moderation analysis further reveals that psychological resilience (PR) weakens the relationship between PW and NGB (β = –0.21, p < 0.01), suggesting that resilient employees are less likely to engage in non-green behaviors when experiencing withdrawal. As per Cohen (1988), effect size values (f^2) indicate small to moderate practical significance, while R^2 values show that the model explains 14% of the variance in PW and 17% in NGB. Collectively, these results support the proposed framework, highlighting both the direct impact of abusive leadership and the buffering role of resilience.

Table 6: Direct and moderation effects

H	Structural Paths	Path Coefficient (*β*)	*P*-values	T ratios	Effect Size (f^2)	Result
Direct Effect						
H1	AL →NGB	0.18	0.02	2.082	0.050	Supported
H2	AL →PW	0.22	< 0.01	2.608	0.074	Supported
H3	PW →NGB	0.32	< 0.01	3.940	0.122	Supported
Moderating Effect						
H5	PW*PR → NGB	-0.21	< 0.01	-2.511	0.071	Supported
PW $R^{2:}$ = 0.14, NGB $R^{2:}$ = 0.17						

Table 7 reports the mediation analysis results using bootstrapped confidence intervals of Preacher and Hayes (2008). The findings indicate that psychological withdrawal (PW) significantly mediates the relationship between abusive leadership (AL) and non-green behavior (NGB). Specifically, AL has a positive effect on PW (path a = 0.220), and PW in turn has a positive effect on NGB (path b = 0.320). The indirect effect of AL on NGB through PW is significant (β = 0.070, SE = 0.031, t = 2.271), with a 95% bootstrapped confidence interval ranging from 0.010 to 0.131, which does not include zero in-between. This confirms the presence of partial mediation, suggesting that employees experiencing abusive leadership are more likely to withdraw psychologically, and this withdrawal, in turn, contributes to higher engagement in non-green behaviors.

Table 7: Mediation analysis' Bootstrapped Confidence Interval

Hypo.		Path a	Path b	Indirect Effect	SE	t-value	Bootstrapped Confidence Interval		Mediation
							95% LL	95% UL	
H4	AL→PW→NGB	0.220	0.320	0.070	0.031	2.271	0.010	0.131	Yes

Discussion

This study examined how abusive leadership shapes employees' non-green behavior in the hospitality and tourism sector, with particular attention to the mediating role of psychological withdrawal and the moderating effect of psychological resilience.

First, the results demonstrated that abusive leadership significantly increases employees' non-green behavior. This finding is consistent with prior research (i.e. Wang & Xiao, 2022; Salama et al., 2025), which emphasized that abusive supervision, as a hostile and unsupportive leadership style, undermines employees' motivation to engage in discretionary pro-environmental behaviors. When employees experience abusive leadership, they often shift into a defensive mode — conserving emotional and psychological resources rather than investing in discretionary behaviors such as sustainability efforts. This reallocation of limited resources manifests as emotional exhaustion and counterproductive behaviors, consistent with Conservation of Resources theory (Akram et al., 2019; Li, 2025), and is particularly pronounced in environments characterized by supervisor toxicity (Qureshi et al., 2022). This defensive orientation contributes to the emergence of non-green behaviors that run counter to organizational sustainability goals.

Second, the findings indicated that abusive leadership promotes employees' psychological withdrawal. This result corroborates the arguments of Huang et al. (2020), who observed that withdrawal behaviors function as a coping mechanism under stressor–strain conditions. Employees disengage mentally as a way to protect themselves from further psychological harm, though this occurs at the cost of reduced workplace involvement and diminished service quality in hospitality contexts (Albashiti et al., 2021; Yasami et al., 2024).

Third, the results showed that psychological withdrawal increases employees' non-green behavior and mediates the relationship between abusive leadership and non-green behavior. This aligns with Mishra (2022) and Saleh and Elsokkary (2025), who argued that psychologically withdrawn employees lack the cognitive and motivational resources necessary to sustain pro-environmental behaviors. In other words, Withdrawal functions as a psychological barrier that disconnects employees from green initiatives, serving as a conduit through which abusive leadership undermines pro-environmental behavior (Raza et al., 2023).

Finally, the study confirmed that psychological resilience moderates the relationship between abusive leadership and psychological withdrawal. This finding is consistent with Finstad et al. (2021) and Khairy et al. (2025b), who asserted that resilient employees are better equipped to reframe negative experiences, employ adaptive coping strategies, and maintain engagement despite adversities. In the hospitality and tourism sector—where emotional labor is high and service expectations are demanding—resilience appears to buffer employees against the detrimental effects of abusive supervision (Bani-Melhem et al., 2021; Chan et al., 2024), mitigating the likelihood of psychological withdrawal.

Taken together, these findings extend leadership and sustainability research by illuminating the mechanisms through which destructive leadership undermines green

behavior and highlighting resilience as a crucial personal resource that can protect employees from disengagement and its negative environmental consequences.

Theoretical Implications

This study advances the literature on leadership and sustainability by extending the application of Conservation of Resources (COR) theory into the hospitality and tourism context. While COR theory has traditionally been employed to explain stress, burnout, and performance outcomes, this study demonstrates its utility in explaining environmentally relevant employee behaviors. Specifically, the findings establish that abusive leadership acts as a resource-depleting factor that heightens psychological withdrawal, ultimately fostering non-green behaviors. This provides novel insight into how destructive supervisory practices undermine pro-environmental efforts at the organizational level.

Furthermore, the study identifies psychological withdrawal as a mediating mechanism, thereby bridging abusive leadership research with emerging literature on sustainability-related employee behavior. By doing so, it highlights the hidden psychological pathways through which toxic leadership behaviors manifest in environmental misconduct. Finally, the moderating role of psychological resilience contributes to the growing body of work on personal resources, showing that resilient employees are better able to buffer the harmful effects of abusive supervision. This extends theory by positioning resilience not only as a predictor of positive outcomes but also as a protective shield against supervisory toxicity in sustainability-related domains.

Practical Implications

The findings carry important managerial and policy implications for the hospitality and tourism industry. First, organizations must recognize that abusive leadership is not only harmful to employees' well-being but also detrimental to organizational sustainability goals. Managers who engage in hostile supervisory practices indirectly encourage employees to disengage psychologically and adopt non-green behaviors, which can undermine corporate environmental responsibility initiatives. Second, HR departments should institutionalize leadership development and training programs that promote ethical, supportive, and empowering supervisory practices. Building managerial awareness of the unintended consequences of abusive behaviors can reduce toxicity at the workplace. Third, the results underscore the value of strengthening employee psychological resilience through training, mentoring, and well-being programs. Resilient employees are more capable of maintaining engagement and environmentally responsible behavior even under adverse leadership conditions. Finally, industry regulators and policymakers may use these insights to design hospitality sustainability standards that incorporate leadership behavior and employee well-being as critical enablers of green performance.

Limitations and Future Research Directions

Like any empirical investigation, this study has limitations that offer avenues for further research. First, the reliance on cross-sectional data limits the ability to draw definitive causal conclusions. Future research could employ longitudinal or

experimental designs to examine how abusive leadership and resilience dynamics unfold over time. Second, the data were collected from five-star hotels and category-A travel agencies in Greater Cairo, which may limit the generalizability of findings to other regions, smaller firms, or different cultural contexts. Replicating the study across diverse hospitality settings or international contexts would enhance external validity. Third, the study relies on self-reported measures, which may be subject to social desirability or common method bias. Future work could integrate multi-source data, such as supervisor ratings, peer assessments, or objective sustainability performance indicators. Finally, while this study focused on resilience as a buffering factor, other personal and organizational resources—such as green organizational climate, social support, or intrinsic motivation—may further explain or moderate the impact of abusive leadership on non-green behaviors. Examining these additional variables could provide a more comprehensive picture of the resource dynamics at play.

Conclusion

This study sheds light on the critical yet underexplored link between abusive leadership and employee non-green behavior in the hospitality and tourism sector in the Egyptian culture context. Grounded in COR theory, the findings demonstrate that abusive leaders drain employee psychological resources, leading to heightened withdrawal and reduced engagement in pro-environmental practices. Psychological withdrawal emerges as a key mediating mechanism, while psychological resilience serves as a protective factor, mitigating the detrimental effects of toxic leadership. By integrating destructive leadership research with sustainability behavior, this study enriches theoretical understanding and offers actionable insights for hospitality managers and policymakers. Ultimately, fostering supportive leadership styles and strengthening employee resilience can serve as powerful levers for achieving both employee well-being and organizational sustainability objectives.

References

- Abedelrahim, S., Qassim, A. A., & Alatawi, F. M. H. (2024). Green practices in action: examining HRM's role in fostering environmental performance in Egypt's hospitality sector. *Sustainability*, *16*(8), 3314.
- Aggarwal, A., Chand, P. K., Jhamb, D., & Mittal, A. (2020). Leader–member exchange, work engagement, and psychological withdrawal behavior: The mediating role of psychological empowerment. *Frontiers in Psychology*, *11*, 423.
- Akram, Z., Li, Y., & Akram, U. (2019). When employees are emotionally exhausted due to abusive supervision. A conservation-of-resources perspective. *International Journal of Environmental Research and Public Health*, *16*(18), 3300.
- Albashiti, B., Hamid, Z., & Aboramadan, M. (2021). Fire in the belly: The impact of despotic leadership on employees work-related outcomes in the hospitality setting. *International Journal of Contemporary Hospitality Management*, *33*(10), 3564-3584.
- Al-Romeedy, B. S., Khairy, H. A., Abdelrahman Farrag, D., Alhemimah, A., Salameh, A. A., Gharib, M. N., & Fathy Agina, M. (2025). Green inclusive

leadership and employees' green behavior in tourism and hospitality businesses: Do green psychological climate and green psychological empowerment matter?. *Journal of Quality Assurance in Hospitality & Tourism*, 1-38.

- AlZgool, M., AlMaamari, Q., Mozammel, S., Ali, H., & Imroz, S. M. (2023). Abusive supervision and individual, organizational citizenship behaviour: Exploring the mediating effect of employee well-being in the hospitality sector. *Sustainability*, *15*(4), 2903.
- Bani-Melhem, S., Quratulain, S., & Al-Hawari, M. A. (2021). Does employee resilience exacerbate the effects of abusive supervision? A study of frontline employees' self-esteem, turnover intention, and innovative behaviors. *Journal of Hospitality Marketing & Management*, *30*(5), 611-629.
- Barnes, C. M., Lucianetti, L., Bhave, D. P., & Christian, M. S. (2015). "You wouldn't like me when I'm sleepy": Leaders' sleep, daily abusive supervision, and work unit engagement. *Academy of Management Journal*, *58*(5), 1419-1437.
- Black, J. K., Balanos, G. M., & Whittaker, A. C. (2017). Resilience, work engagement and stress reactivity in a middle-aged manual worker population. *International Journal of Psychophysiology*, *116*, 9-15.
- Carter, D. M. (2011). Recognizing the role of positive emotions in fostering environmentally responsible behaviors. *Ecopsychology*, *3*(1), 65-69.
- Chan, E. K., Li, S., Way, S. A., & Donahue, R. (2024). The intuitive and counterintuitive effects of supportive and abusive supervision on hotel employees. *Cornell Hospitality Quarterly*, *65*(3), 304-320.
- Chu, C. C., & Chou, C. Y. (2024). Hybrid work stressors and psychological withdrawal behavior: A moderated mediation model of emotional exhaustion and proactive personality. *Journal of Vocational Behavior*, *155*, 104053.
- Cohen J. E. (1988). *Statistical Power Analysis for the Behavioral Sciences. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc*
- Dai, Y. D., Zhuang, W. L., & Huan, T. C. (2019). Engage or quit? The moderating role of abusive supervision between resilience, intention to leave and work engagement. *Tourism Management*, *70*, 69-77.
- Dharmesti, M., Merrilees, B., & Winata, L. (2020). "I'm mindfully green": Examining the determinants of guest pro-environmental behaviors (PEB) in hotels. *Journal of Hospitality Marketing & Management*, *29*(7), 830-847.
- Einarsen, S., Skogstad, A., Rørvik, E., Lande, Å. B., & Nielsen, M. B. (2018). Climate for conflict management, exposure to workplace bullying and work engagement: a moderated mediation analysis. *The International Journal of Human Resource Management*, *29*(3), 549-570.
- Elshaer, I. A., Azazz, A. M., Mansour, M. A., & Fayyad, S. (2025). Perceived greenwashing and employee non-green behavior: The roles of prevention-focused green crafting and work alienation. *Cogent Business & Management*, *12*(1), 2449592.
- Finstad, G. L., Giorgi, G., Lulli, L. G., Pandolfi, C., Foti, G., León-Perez, J. M., ... & Mucci, N. (2021). Resilience, coping strategies and posttraumatic growth

in the workplace following COVID-19: A narrative review on the positive aspects of trauma. *International journal of environmental research and public health*, *18*(18), 9453.

- Fletcher, D., & Sarkar, M. (2013). Psychological resilience. *European psychologist*, 1-33.
- García, C. J., Herrero, B., & Morillas-Jurado, F. (2024). The impact of the environmental, social and governance dimensions of sustainability on firm risk in the hospitality and tourism industry. *Corporate Social Responsibility and Environmental Management*, *31*(4), 2783-2800.
- Gip, H., Wang, X., Guchait, P., & Pasamehmetoglu, A. (2024). Exploring the impact of abusive supervision on employee approaches to managing service errors and failures: Examining the effects of hope and optimism, and service tenure. *International Journal of Hospitality Management*, *122*, 103839.
- Hair, J. F., Black, W. C., Balin, B. J., & Anderson, R. E. (2010). Multivariate data analysis: Maxwell Macmillan international editions.
- He, Q., Wu, M., Wu, W., & Fu, J. (2021). The effect of abusive supervision on employees' work procrastination behavior. *Frontiers in psychology*, *12*, 596704.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American psychologist*, *44*(3), 513.
- Hobfoll, S. E., Halbesleben, J., Neveu, J. P., & Westman, M. (2018). Conservation of resources in the organizational context: The reality of resources and their consequences. *Annual review of organizational psychology and organizational behavior*, *5*(1), 103-128.
- Huang, L. C., Lin, C. C., & Lu, S. C. (2020). The relationship between abusive supervision and employee's reaction: The job demands-resources model perspective. *Personnel Review*, *49*(9), 2035-2054.
- Ikhide, J. E., Ogunmokun, O. A., & Chen, T. (2024). Restraints and enablers of green initiative-taking among hospitality employees: A mixed-methods approach. *Journal of Sustainable Tourism*, *32*(6), 1096-1117.
- Jameel, A., Sahito, N., Guo, W., Hussain, A., Kanwel, S., & Khan, S. (2025). The influence of supportive leadership on hospitality employees' green innovative work behavior: The mediating role of innovative climate and psychological empowerment. *Frontiers in Psychology*, *16*, 1565408.
- Jasim, T. A., Moneim, A. A., El-Sayed, S. F., Khairy, H. A., & Fayyad, S. (2024). understanding the nexus between abusive supervision, knowledge hiding behavior, work disengagement, and perceived organizational support in tourism and hospitality industry. *Geo Journal of Tourism and Geosites*, *55*(3), 1039-1054.
- Khairy, H. A., & Badwy, H. E. (2025). Adaptive leadership and resilience: The mediating and moderating pathways to green competitiveness in the hospitality sector. *Journal of Hospitality and Tourism Insights*, 1-23.
- Khairy, H. A., Badwy, H. E., & Khreis, S. H. A. (2025a). Perceived Environmental Corporate Social Responsibility and Sustainable Innovation in the Hotel Business: The Mediating Role of Green Intrinsic Motivation.

In *Navigating Trust in Sustainability Reporting and Assurance* (pp. 317-356). IGI Global Scientific Publishing.

- Khairy, H. A., Fayyad, S., & El Sawy, O. (2025b). AI awareness and work withdrawal in hotel enterprises: unpacking the roles of psychological contract breach, job crafting, and resilience. *Current Issues in Tourism*, 1-21.
- Khatter, A. (2023). Challenges and solutions for environmental sustainability in the hospitality sector. *Sustainability*, *15*(15), 11491.
- 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*, 83-93.
- Kock, N. (2021). *WarpPLS User Manual: Version 7.0*. Laredo, TX: ScriptWarp Systems.
- Lehman, W. E., & Simpson, D. D. (1992). Employee substance use and on-the-job behaviors. *Journal of Applied Psychology*, *77*(3), 309.
- Li, J. (2025). The Impact of Abusive Supervision on Employee Counterproductive Work Behavior: A Moderated Mediation Analysis. *Frontiers in Psychology*, *16*, 1455658.
- Liang, L. H., & Brown, D. J. (2016). Abusive leadership. In *Global encyclopedia of public administration, public policy, and governance* (pp. 1-7). Springer, Cham.
- Lyu, Y., Zhou, X., Li, W., Wan, J., Zhang, J., & Qiu, C. (2016). The impact of abusive supervision on service employees' proactive customer service performance in the hotel industry. *International Journal of Contemporary Hospitality Management*, *28*(9), 1992-2012.
- Mackey, J. D., McAllister, C. P., Ellen III, B. P., & Carson, J. E. (2021). A meta-analysis of interpersonal and organizational workplace deviance research. *Journal of Management*, *47*(3), 597-622.
- Mishra, A. (2022). Withdrawal behaviours and absenteeism at work post covid-19. *Organization and Human Capital Development*, *1*(2), 62-75.
- Mitchell, M.S., & Ambrose, M.L. (2007). Abusive supervision and workplace deviance and the moderating effects of negative reciprocity beliefs. *Journal of applied psychology*, 92(4), 1159-1168. https://doi.org/10.1037/0021-9010.92.4.1159
- Morrison, E. W. (1993). Newcomer information seeking: Exploring types, modes, sources, and outcomes. *Academy of management Journal*, *36*(3), 557-589.
- Nisar, Q. A., Akbar, A., Naz, S., Haider, S. A., Poulova, P., & Hai, M. A. (2022). Greening the workforce: A strategic way to spur the environmental performance in the hotel industry. *Frontiers in Environmental Science*, *10*, 841205.
- Paillé, P., Mejía Morelos, J. H., Raineri, N., & Stinglhamber, F. (2019). The influence of the immediate manager on the avoidance of non-green behaviors in the workplace: A three-wave moderated-mediation model. *Journal of Business Ethics*, *155*(3), 723-740.

- Powell, B. (2020). *Abusive supervision, work engagement and burnout: Does employee trait mindfulness buffer the effects of leader abuse?* (Doctoral dissertation, The University of Waikato).
- 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.
- Qureshi, M. A., Ramish, M. S., Ansari, J., & Bashir, M. A. (2022). Leader's toxicity at workplace: how leader's decadence affect employees? A Pakistani perspective. *Sage Open*, *12*(2), 21582440221096425.
- Rastogi, A., Pati, S. P., Dixit, J. K., & Kumar, P. (2018). Work disengagement among SME workers: Evidence from India. *Benchmarking: An International Journal*, *25*(3), 968-980.
- Raza, B., St-Onge, S., & Ullah, S. (2023). Abusive supervision and deviance behaviors in the hospitality industry: The role of intrinsic motivation and core self-evaluation. *Tourism Management*, *98*, 104748.
- Sagie, A., Birati, A., & Tziner, A. (2002). Assessing the costs of behavioral and psychological withdrawal: A new model and an empirical illustration. *Applied psychology*, *51*(1), 67-89.
- Salama, W. M., Khairy, H. A., Badwy, H. E., Afify, S. M., Alrefae, W. M. M., & Soliman, S. A. E. M. (2025). How abusive leadership could harm employee job engagement in hotel businesses? The roles of perceived organizational politics and presenteeism. *Intangible Capital*, *21*(1), 168-192.
- Saleh, M. A. M., & Elsokkary, H. H. K. A. (2025). Trust in Leadership and Psychological Withdrawal Behavior in Hotel Enterprises: The Mediating Role of Psychological Resilience. *Journal of the Faculty of Tourism and Hotels-University of Sadat City*, *9*(1/1), 68-90.
- Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The brief resilience scale: assessing the ability to bounce back. *International journal of behavioral medicine*, *15*(3), 194-200.
- Taris, T. W., Schreurs, P. J., & Van Iersel-Van Silfhout, I. J. (2001). Job stress, job strain, and psychological withdrawal among Dutch university staff: Towards a dualprocess model for the effects of occupational stress. *Work & stress*, *15*(4), 283-296.
- Tepper, B. J. (2000). Consequences of abusive supervision. *Academy of management journal*, *43*(2), 178-190.
- Tepper, B. J., Simon, L., & Park, H. M. (2017). Abusive supervision. *Annual Review of Organizational Psychology and Organizational Behavior*, *4*(1), 123-152.
- Wang, H., & Xiao, J. (2022). How and when daily abusive supervision affects daily organizational citizenship behavior for the environment. *Frontiers in Psychology*, *13*, 791803.
- Wheeler, A. R., Halbesleben, J. R., & Whitman, M. V. (2013). The interactive effects of abusive supervision and entitlement on emotional exhaustion and co-worker abuse. *Journal of Occupational and Organizational Psychology*, *86*(4), 477-496.

- Yan, Z., Mansor, Z. D., Choo, W. C., & Abdullah, A. R. (2021). Mitigating effect of psychological capital on employees' withdrawal behavior in the presence of job attitudes: Evidence from five-star hotels in Malaysia. *Frontiers in Psychology*, *12*, 617023.
- Yasami, M., Phetvaroon, K., Dewan, M., & Stosic, K. (2024). Does employee resilience work? The effects of job insecurity on psychological withdrawal behavior and work engagement. *Journal of Hospitality and Tourism Insights*, *7*(5), 2862-2882.
- Yuan, X., Xu, Y., & Li, Y. (2020). Resource depletion perspective on the link between abusive supervision and safety behaviors. *Journal of Business Ethics*, *162*(1), 213-228.
- Zimmerman, R. D., Swider, B. W., Woo, S. E., & Allen, D. G. (2016). Who withdraws? Psychological individual differences and employee withdrawal behaviors. *Journal of Applied Psychology*, *101*(4), 498.

Appendix (A): Model fit and quality indices

	Assessment	Criterion	Decision
Average path coefficient (APC)	0.231, P=0.002	P<0.05	Supported
Average R-squared (ARS)	0.158, P=0.016	P<0.05	Supported
Average adjusted R-squared (AARS)	0.145, P=0.022	P<0.05	Supported
Average block VIF (AVIF)	1.332	acceptable if ≤ 5, ideally ≤ 3.3	Supported
Average full collinearity VIF (AFVIF)	1.505	acceptable if ≤ 5, ideally ≤ 3.3	Supported
Tenenhaus GoF (GoF)	0.323	small ≥ 0.1, medium ≥ 0.25, large ≥ 0.36	Supported
Sympson's paradox ratio (SPR)	1.000	acceptable if ≥ 0.7, ideally = 1	Supported
R-squared contribution ratio (RSCR)	1.000	acceptable if ≥ 0.9, ideally = 1	Supported
Statistical suppression ratio (SSR)	1.000	acceptable if ≥ 0.7	Supported
Nonlinear bivariate causality direction ratio (NLBCDR)	0.750	acceptable if ≥ 0.7	Supported