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Exploring the Link between Self-Leadership and Innovative Work Behaviours in Luxury Hotels: Validating a Moderated Mediation Model

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Abstract

This study explores the relationship between Self-Leadership (SL), Work Engagement (WE), and Innovative Work Behaviors (IWBs) in luxury hotels, with a focus on the moderating role of personality traits. A quantitative research approach was employed utilizing a structured questionnaire to gather data from 466 hotel managers across various establishments in Egypt. Partial least squares structural equation modeling was used to test the proposed research model. The findings reveal that SL significantly enhances WE, which, in turn, positively influences IWBs. Moreover, WE mediates the relationship between SL and IWBs. The moderating effects of conscientiousness (CON) and openness to experience (OE) were found to strengthen the SL-WE relationship. The study offers theoretical and practical insights for managers, policymakers, and researchers, emphasizing the importance of cultivating SL and fostering WE to enhance innovation in the hospitality sector. By incorporating personality traits as a moderator, this study provides a novel perspective on the dynamics of SL, WE, and IWBs within the context of Egyptian luxury hotels, contributing valuable knowledge to the management and organizational behavior literature.

Keywords: Self-leadership; work engagement; innovative work behaviors; conscientiousness, openness to experience

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Introduction

Tourism and hospitality have long been recognized as fields where situations change frequently, with workers facing diverse problems while simultaneously providing excellent customer experiences (Ozdemir et al., 2023). In developed economies worldwide, the hospitality sector's contribution to GDP exceeds 70% (Abou-Shouk & Khalifa, 2017). Even more, in this period of uncertainty, complex phenomena such as globalization and technological and digital revolution are shaking up the traditional models of many industries, altering how products are tailored to meet customers' demands (Khalifa et al., 2024; Soliman et al., 2022). Tourism constitutes a significant source of foreign currency revenues, making the hospitality industry a crucial sector in Egypt's economy. Since the hotel industry plays a pivotal role in tourism, it is essential to understand how hotels can optimize their operations. The most effective way to achieve this is to analyze and investigate how creative work practices, employee engagement, and self-leadership (SL) interrelate in the Egyptian context. Self-leadership is critical for hotel executives and managers in Egypt to effectively lead their teams, foster innovation, and thrive in the highly competitive luxury hotel market. Developing SL skills enables managers to model the behaviors they aspire to see in their employees, eventually contributing to the organization's success (Khalifa et al., 2023). Transformational leadership, which incorporates SL principles, has influenced the managerial locus of control and self-efficacy in Egyptian hotels. Moreover, SL empowers hotel managers and executives to enhance crucial skills in customer service, leadership, and effective communication, which are indispensable for success in the hospitality industry. employee SL has had a significant impact on internal branding and role clarity in five-star hotels,

signifying its importance in luxury hotels (Lei et al., 2021). Even more precisely, human creativity in business is the foundation of high-performing organizations. Innovation Stems from creative thought, with humans devising, advocating for, and debating its implementation (Gomes et al., 2015). Research has shown that technology and innovation enhance productivity in the hospitality sector (Khalifa et al., 2023). In tourism and hospitality, customer-contact employees' behavior is crucial to customer satisfaction (Khalifa et al., 2024). However, further research is needed on factors influencing employees' innovative behavior. Self-leadership (SL) is a self-directed process where employees exhibit more positive behaviors when guided by their own motivation (Zhang & Xu, 2021). Studies confirm SL's positive impact on employee attitude and behavior (Zhang & Xu, 2021). At work, SL involves behavioral and psychological strategies that can be learned and applied, offering numerous benefits (Gomes et al., 2015). These tactics fall into three interrelated categories: reward-focused, behavior-based, and thought-pattern development techniques (Stewart et al., 1996). Work engagement (WE) refers to employees' energy and enthusiasm at work, significantly influencing performance and organizational success. We are described as a positive state characterized by vigor, dedication, and absorption (Gomes et al., 2015). The rise of positive psychology has emphasized WE, linking it to active involvement, role commitment, and intrinsic motivation to exceed expectations (Elshaer et al., 2023, 2024).

This study investigates the relationship between IWBs, WE, and SL in Egyptian hotels. It also examines the moderating impact of personality traits on this relationship. Specifically, it focuses on two key personality traits: openness to experience and conscientiousness. This study gathered data from executives and managers to explore the differences in activism and performance, such as varied key performance indicators (KPIs), task execution, and their actual knowledge and opinions on key issues. Executives are proactive in preventing future problems, while managers rely on retrospective indicators to assess post-performance. Executives shape the institution's strategic mission and vision, making pivotal decisions that impact the entire company or significant divisions. In contrast, managers and supervisors oversee daily operations within departments, teams, or projects. This study focuses on two personality traits instead of the five in the BFI-10 model due to their relevance. Openness with experience and conscientiousness are the most pertinent for predicting creativity, innovation, and job performance. Narrowing the focus to these traits provides a more precise approach than the full big five model, which may be better suited for specific research applications. Openness is linked to imagination, creativity, and intellectual curiosity, fostering self-actualization (Angelini, 2023). Conscientiousness strongly predicts job performance, satisfaction, and leadership effectiveness. Individuals with this trait are accountable, goal-oriented, and organized, contributing to workplace success while reducing turnover and deviant behavior. Despite extensive studies on leadership's role in innovation, SL remains overlooked in the hotel industry (Kyei-Frimpong et al., 2024; Wen et al., 2023). Contemporary studies emphasize external leadership styles, such as transformational leadership or transactional leadership, while neglecting SL's role in fostering internal innovation (Huang & Zhou, 2024). SL empowers employees to take accountability for their motivation, behavior, and growth, which is crucial for driving novelty. Furthermore, existing research overlooks cultural and organizational factors unique to Egypt's luxury hotel industry, where traditional structures may influence SL strategies (Khalifa, 2020). This study addresses these gaps by examining the relationship between SL and IWB, assessing how personality traits moderate this relationship in Egyptian hotels.

Literature review

Self-determination theory (SDT)

The conceptual framework (Figure 1) is grounded in Self-Determination Theory (SDT), which posits that individuals are intrinsically motivated by growth, autonomy, and self-accomplishment. It suggests that autonomy, competence, and interpersonal connectedness are core psychological needs contributing to work performance and life satisfaction (Deci & Ryan, 2014). As a tool for autonomy fulfillment, SL promotes self-direction in actions, thoughts, and emotions, enhancing self-determination and empowerment (Van den Broeck et al., 2021). Work engagement reflects an individual's deep involvement in tasks, reinforcing self-worth. Similarly, IWB stems from an intrinsic need for relatedness, as individuals collaborate, exchange ideas, and contribute to shares goals. Personality traits, particularly openness to experience, shape the interplay between SL, WE, and innovation, influencing how individuals engage with their work (Aggarwal et al., 2022). SDT provides a comprehensive framework for understanding workplace behavior, considering personality as a mediator. Integrating SDT can help researchers explore motivational dynamics and the role of personality traits in shaping employee attitude and behaviors.

Innovative work behaviors in hotels

Innovation behavior encompasses activities where people or organizations generate models that enhance perspectives and propose solutions based on prior experiences or novel concepts (Lee et al., 2022). IWB is fundamental to organizational sustainability in competitive environments, driving productivity, success, and the creation of new work practices (Aliane et al., 2023). Given its organizational significance, research on employee creativity and innovation is expanding (Khalifa, Elshaer, et al., 2025). Jan et al. (2022) investigated the impact of servant leadership on employees' harmonious passion and its mediating role in the relationship between SL and IWBs. Their findings confirm that harmonious passion as a mediator in this relationship. Aliane et al. (2023) examined IWB's connection to job insecurity, revealing that knowledge-hiding behavior mediate this link. Their study also investigates team anti-citizenship behavior as a mediator. Nurjaman et al. (2019) investigated the relationship between proactive work behavior and IWBs in Islamic banking in Indonesia. A quantitative study of 145 sharia bank supervisors found that proactive behavior enhances IWBs. Job characteristics including skill variety, task significance, autonomy, and feedback mediate this relationship. Although interaction tests were not significant, the study recommends improving data

collection methods and examining additional IWBs influences. These results offer practical insights for organizations aiming to stimulate creativity among proactive employees.

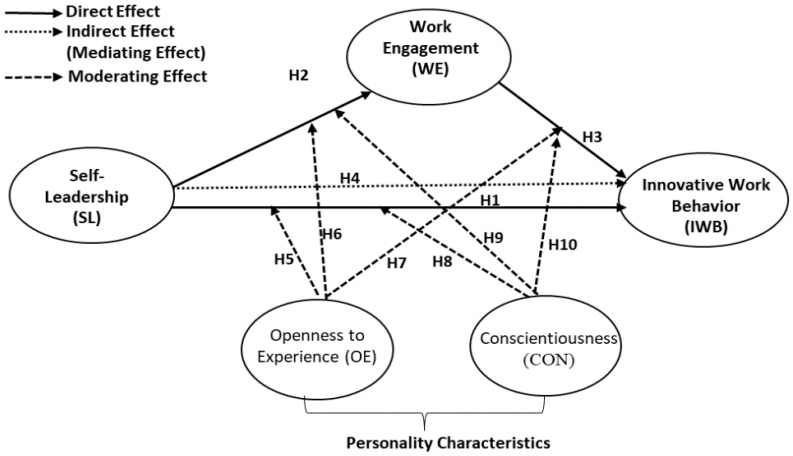


Figure 1. Theoretical framework

Hypothesis development

Self-leadership and innovative work behaviors

According to Inam et al. (2023), SL refers to the degree to which a person regulates their actions and employs behavioral, cognitive, and intrinsic motivational techniques to lead themselves effectively. According to AlEssa & Durugbo (2022), innovative behavior is fundamentally driven by a creative mindset, facilitating the transition from outdated to modern mentalities and from conventional to advanced thinking. Asurakkody & Kim(2020) found a strong correlation between creative work practices and information sharing, with SL fully mediating this relationship. Khan et al. (2024) found that SL significantly influences creative work behavior. Furthermore, increased information sharing strengthens the relationship between SL and creative workplace behavior. Inam et al. (2023) discovered that SL, optimism, and self-efficacy influence creative behavior, with SL directly impacting optimism and self-efficacy. Furthermore, optimism and self-efficacy may mediate the association between SL and creative behavior. Based on this discussion, the following hypothesis has been developed.

H1. Self-leadership positively influences innovative work behaviours.

Self-leadership and work engagement

Because self-led workers better utilize their psychological resources to achieve goals and enhance cognitive capabilities, they demonstrate higher job engagement and performance (Khalifa, 2020; Alharthi & Khalifa, 2019). According to Gomes et al. (2015), SL is benefits both businesses and their employee well-being. It comprises behavioral, cognitive, and reward-based processes, positively impacting WE by fostering creativity at work. Wen et al. (2023) found a positive correlation between psychological empowerment, WE, and empowering leadership. The association between empowered management and WE was partially mediated by psychological empowerment. Inam et al. (2021) showed that SL enhances employees' WE, commitment, and overall performance. We mediates the relationship between SL and both normative commitment and job performance. Knotts & Houghton (2021) argued that emotional and normative commitment, but not continuance commitment, partially mediates the positive association between SL and WE. Based on this discussion, the following hypothesis has developed:

H2. Self-leadership positively influences work engagement.

Work engagement and innovative work behaviors

Work engagement (WE) describes a positive mental state associated with one's job, characterized by energy, dedication, and absorption. It emotionally, intellectually, and psychologically connects individuals to their roles (Elshaer et al., 2024). Workers who bring their personalities to work and psychologically engage with their jobs tend to be more innovative and exert extra effort when completing tasks (Gemeda & Lee, 2020). According to van Zyl et al. (2021), employee task performance is impacted by creative work behaviors, which are significantly shaped by WE. adopting creative work practices is essential to channelling employees' engaged energy into productivity. Gemeda & Lee (2020) found significant positive correlations between WE and work outcomes. Additionally, WE partially moderated the relationship between leadership styles and job performance. Khan et al. (2024) found that corporate social responsibility (CSR) initiatives naturally enhance employees' interest in their work and foster creativity. Their research highlights that both work and personal resources are necessary to cultivate WE. They also noted that employees' willingness to be innovative is strongly influenced by how stimulated they feel on the job.

H3. Work engagement positively influences IWBs.

Work engagement as a mediator

Employees who are highly engaged at work are psychologically present, they are totally present, actively engaging physically, intellectually, and emotionally in their roles (Lai et al., 2020; Widjaja et al., 2020). Jnaneswar & Ranjit (2023) discovered that SL influences employee innovation. Furthermore, their data revealed that both organizational commitment and job engagement independently moderate the association between SL and employee creativity. According to Khalifa et al., (2023), organizational commitment positively influences employees through work motivation and engagement, significantly enhancing performance. Lai et al. (2020) demonstrated that WE mediates the positive relationship between transformational leadership, job performance, and helping behavior, even after controlling for leader-member exchange (LMX) role-based self-efficacy, and transactional leadership, and participant demographic such as gender, age, and education. Ng et al., (2021) demonstrated a strong correlation between job satisfaction, WE, and organizational citizenship behavior (OCB) among health professionals. WE is a significant predictor of OCB, and job involvement partially mediates the association between OCB and job satisfaction. Hence, the following hypothesis has been developed.

H4. Work Engagement mediates the relationship between SL and IWBs.

Personality characteristics (openness to experience and conscientiousness) as a moderator

A key component of personality is openness to experience (OE), encompasses traits like emotional distinctiveness, liberal values, aesthetic sensitivity, and intellectual curiosity. Individuals with high OE seek novelty and variety, distinguishing them from those who prefer regularity and familiarity (Kundan et al., 2022; Mo et al., 2022). Lei et al. (2021) investigated the moderating role of OE on the link between SL and WE among Chinese employees. Their study found that OE mediates the SL-WE relationship, suggesting that organizations should consider employees' OE levels when developing SL programs. According to Mo et al. (2021), the willingness to receive a free or self-paid COVID-19 vaccination is positively correlated with the perceived vaccine efficacy, social media usage for vaccine-related information, and OE. Among individuals less open to new experiences, descriptive norms and perceived vaccine efficacy show a stronger correlation with vaccination intent. Singh & Mehdi (2022) analyzed three dimensions: entrepreneurial orientation (EO), OE, and entrepreneurial intention (EI). Their study confirmed OE's moderating role in the EO-EL relationship. Khalifa et al. (2022) demonstrated that tourism experiences inspire visitors, boosting their involvement. Their findings showed a strong positive connection between expertise and inspiration, particularly for visitors with high OE, with OE serving as a moderating factor. Based on this discussion, the following hypotheses have been developed:

H5. Openness to experience moderates the relationship between SL and IWBs.
H6. Openness to experience moderates the relationship between SL and WE.
H7. Openness to experience moderates the relationship between WE and IWBs.

Consciousness (CON) is one of the five personality traits in the Big Five model, alongside neuroticism, agreeableness, extraversion, and openness to experiences. Individuals high in CON tend to be diligent, reliable, organized, disciplined, and law-abiding (Dishon-Berkovits et al., 2024; Hong et al., 2023). Hoxha & Ramadani (2023) found an indirect positive association between horizontal and vertical collectivism and work performance, mediated by psychological needs. CON moderated the direct association between psychological needs and both forms of collectivism. Their study also revealed a significant indirect effect of horizontal and vertical collectivist values on job performance, with weaker relatedness in individuals with low CON. Hoxha & Ramadani (2023) further found that low CON among government employees in the Netherlands weakend the positive effects of transformational leadership on creative behavior. Grošelj et al. (2020) indicated that personality traits influence the association between leadership style and IWBs, affecting the leadership approach needed for effectiveness. Dishon-Berkovits et al. (2023), found that people with low CON showed stronger indirect correlations between workplace competition and both in-role and extra-role performance through job engagement. Hollebeek et al. (2023) provided evidence of CON's moderating role in consumer behavior. Furthermore, consumer CON interacts with task type (commenting vs. content creation) and brand type (utilitarian vs. hedonic), with highly CON consumers less likely to engage in brand creation. Based on this discussion the following hypotheses have been developed:

H8. Conscientiousness moderates the relationship between SL and IWBs.
H9. Conscientiousness (CON) moderates the relationship between SL and WE.
H10. Conscientiousness (CON) moderates the relationship between WE and IWBs.

Methodology

To determine the study population, we selected luxury hotels in Cairo, Egypt as the sample base. Cairo has 34 luxury hotel chains (EHA, 2023), and our sample consisted of 28 hotels, selected through convenience sampling. The target subjects were hotel executives and department directors. From December 2023 to February 2024, we conducted a survey to collect data. To facilitate data collection, we established personal connections with hotel managers. Most selected hotels were easily accessible to our research team. The questionnaire was provided to hotel managers, who then shared and distributed it among their sub-managerial teams. Written and verbal consent were obtained from respondents. A total of 650 questionnaires were evenly

distributed with 466 valid responses collected by the cut-off date, resulting in a 71.69% response rate, which determined the sample size. The survey included 30 primary questions and 5 demographic questions on gender, age, experience level, education, and managerial position. Completion required approximately 40 minutes. Participants received comprehensive study information regarding the research and were granted the privilege of privacy. Their involvement in the survey was voluntary, and they were and were assured of privacy. Their participation was voluntary, and they could withdraw at any time. Most questionnaire items were closed-ended. Follow-up phone calls were made to encourage participation. To ensure the clarity, a pilot test with 15 academics confirmed respondents' comprehension of research variables. The questionnaire encompassed two sections: a cover letter detailing the survey purpose, contact information, and hotel characteristics, and a a section collecting perspectives on CON, OE, IWBs, SL, and WE, utilizing a five-point Likert scale from 5 (strongly agree) to 1 (strongly disagree).

After an extensive literature review, this study implemented methodologies previously used in similar research. Among these was the SL scale, initially adopted from Huang & Zhou (2024). SL was measured using six items (SL1:SL6). Work Engagement (WE) was adapted from Gomes *et al.* (2015) and assessed using six items (WE1-WE6). The reflective scale for Innovative Work Behaviours (IWBs) was adapted from Nurjaman et al. (2019) and comprised six items (IWBs1:IWBs6). Personality characteristics were measured using the scale developed by Mustafa et al. (2021), which identified two key dimensions: conscientiousness (CON), and openness to experience (OE). CON was assessed using six items (CON1:CON6), while OE was evaluated using six items (OE1:OE6).

Results

Profile of the respondents

The study's sample (n = 466) comprised approximately 79.3% of males and 20.7% of females. The majority (54.4%) of participants were under 35 years old. Education levels, with 51.6% holding a diploma/intermediate degree, 42.5% holding a bachelor's degree, 5.6% holding a master's degree, and 0.4% holding a Ph.D. Regarding work experience, 54.0% had 5 years or less, 41.2% had between five and ten years, 4.0% had eleven to fourteen years, and 0.8% had 15 or more years. Approximately 64% of participants held executives' positions in hotels.

The measurement model

Hair et al. (2017) emphasize the importance of assessing constructs' goodness of fit, reliability, and validity in measurement models to ensure accurate results. Measurement errors, inevitable in multivariate studies, can impair reliability and validity but can be mitigated with precise methods. While the partial least square structural equation modelling (PLS-SEM) lacks a goodness-of-fit criterion, metrics like SRMR are suggested by Becker et al. (2023) for model validation, with an SRMR score below 0.08 indicating a well-fitting model. Cronbach's alpha, composite reliability (CR), and factor loadings are used to ensure reliability, with values above 0.7 indicating reliability. Convergent validity, assessed through the AVE criterion, is confirmed when results exceed 0.50. Overall, these measures determine the reliability and accuracy of the structural model (See Table 1).

Table 1: Reliability, validity, and multicollinearity

Factor	Variables	Loading	Mean	Std.-Deviation	Cronbach's-alpha	CR	AVE
CON	CON1	0.784	4.194	1.182	0.816	0.867	0.523
	CON2	0.760					
	CON3	0.746					
	CON4	0.791					
	CON5	0.628					
	CON6	0.607					
IWBs	IWBs1	0.938	4.221	1.128	0.959	0.967	0.831
	IWBs2	0.932					
	IWBs3	0.914					
	IWBs4	0.942					
	IWBs5	0.875					
	IWBs6	0.866					
OE	OE1	0.810	4.163	0.811	0.908	0.929	0.687
	OE2	0.911					
	OE3	0.818					
	OE4	0.841					
	OE5	0.859					
	OE6	0.723					
SL	SL1	0.740	3.703	1.068	0.890	0.897	0.635
	SL2	0.829					
	SL4	0.785					
	SL5	0.814					
	SL6	0.815					
WE	WE1	0.665	3.719	0.814	0.890	0.912	0.635
	WE2	0.821					
	WE3	0.818					
	WE4	0.843					
	WE5	0.780					
	WE6	0.838					

The discriminant validity of the measurement model was assessed using two criteria: the Fornell-Larcker criterion and the heterotrait-monotrait ratio (HTMT). High loadings were discovered to be the first investigation demonstrating that higher loadings belong to the constructs to which they belong when they are greater than the other constructs. The Fornell-Larcker criterion was also used to confirm discriminant validity, as it showed that the square root of AVE for each concept owned and exceeded correlations with other constructs. Furthermore, the discriminant validity of the scale was determined by calculating the HTMT ratios, which all fell below the suggested threshold of 0.90 (Fornell & Larcker, 1981). This implies that the

measurement model distinguishes well between constructs and measurements that modify concepts, as well as the model's validity in evaluating the intended latent constructs (see Table 2).

Table 2: Assessment of discriminant validity

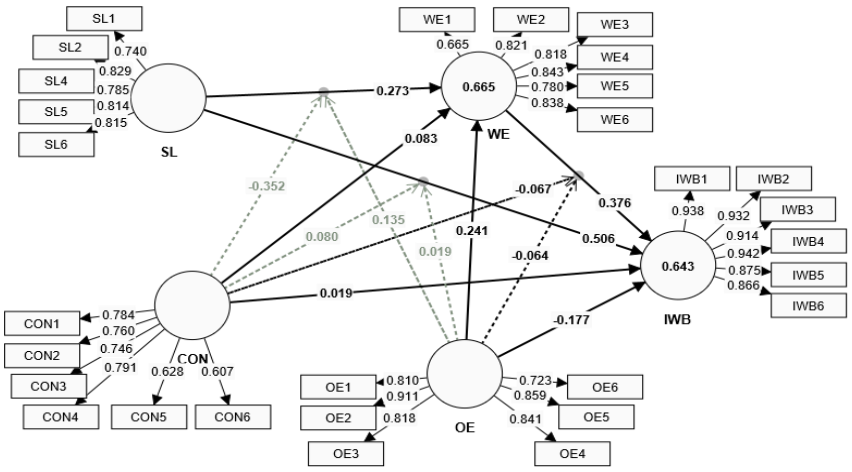
	Fornell & Larcker Criterion				
	CON	**IWBs**	**OE**	**SL**	**WE**
CON	**0.723**				
IWBs	0.383	**0.911**			
OE	0.377	0.327	**0.829**		
SL	0.383	0.744	0.403	**0.797**	
WE	0.472	0.668	0.557	0.617	**0.797**
	HTMT Criterion				
	CON	**IWBs**	**OE**	**SL**	**WE**
CON					
IWBs	0.418				
OE	0.412	0.344			
SL	0.357	0.559	0.403		
WE	0.515	0.591	0.608	0.501	

Hypotheses testing

Table 3 illustrates the dynamic interrelationships within the structural path analysis. The model's hypotheses (H1-H3) posit links between variables, distinguishing predictors (exogenous) and responses (endogenous). H1, H2, and H3 are supported by statistically significant beta coefficients (β) (0.506, 0.273, 0.376 respectively) and t-values (7.573, 3.621, 5.883 respectively), indicating positive relationships between SL->IWBs, SL->WE, and WE->IWBs, respectively.

Table 3: Direct, indirect & moderate hypotheses results

H	**Relationship**	**β-value**	**STDEV**	**T-statistics**	**P-values**	**R2**	**Q2**	**F2**	**VIF**
H1	SL -> IWBs	0.506	0.067	7.573	0.000	0.643	0.521	0.373	1.922
H2	SL -> WE	0.273	0.075	3.621	0.000	0.665	0.382	0.152	1.466
H3	WE -> IWBs	0.376	0.064	5.883	0.000	0.643		0.127	3.115
H4	SL -> WE -> IWBs	0.103	0.046	2.238	0.025				
H	**Relationship**	**β -value**	**STDEV**	**T statistics**	**P values**	**Decision**			
H5	OE x SL -> IWBs	0.019	0.070	0.276	0.782	Rejected			
H6	OE x SL -> WE	0.135	0.031	4.355	0.000	Supported			
H7	OE x WE -> IWBs	-0.064	0.068	0.948	0.343	Rejected			
H8	CON x SL -> IWBs	-0.067	0.073	0.920	0.357	Rejected			
H9	CON x SL -> WE	0.080	0.077	1.042	0.298	Rejected			
H10	CON x WE -> IWBs	-0.352	0.046	7.661	0.000	Supported			



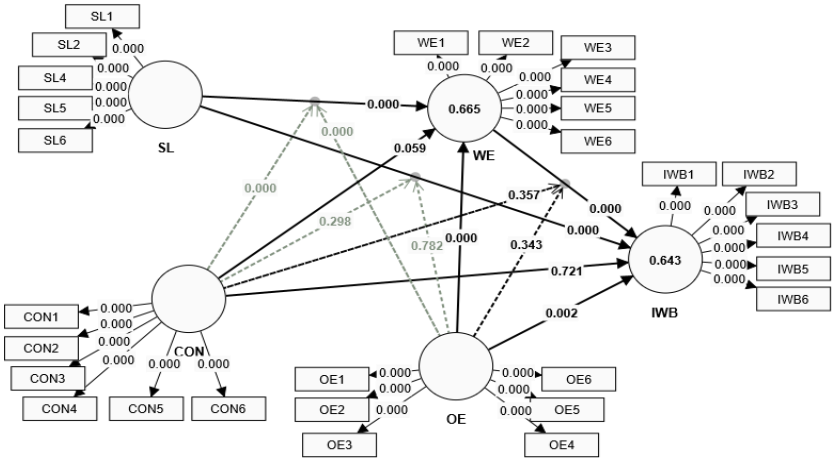
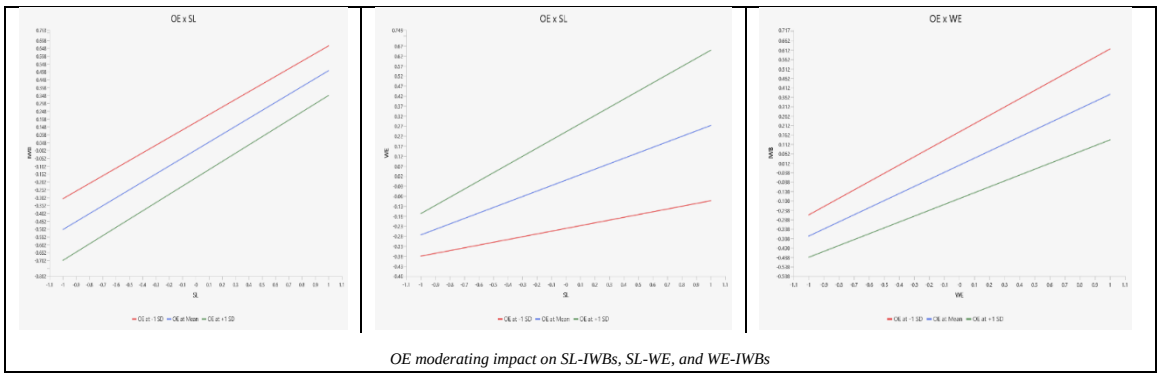


Figure 2: PLS model results

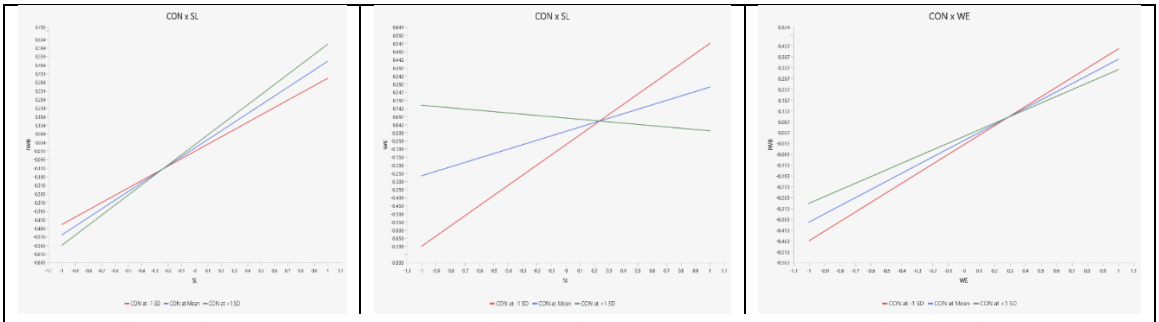
The R^2 values indicate the extent to which SL explains changes in WE, and IWBs. High R^2 values for WE (0.665) and IWBs (0.643) suggest that SL accounts for a significant portion of their variance. The R^2 of 0.643 for IWBs indicates that SL and WE together explain a substantial part of IWB's variance. Effect sizes reveal strong relationships between exogenous and endogenous constructs, with SL having a large effect on IWBs (0.373) and moderate effect on We (0.152). WE's moderate effect on IWBs (0.127) suggests that changes in SL moderately influence IWBs. Blindfolding tests demonstrate strong predictive relevance for IWBs (0.521), and WE (0.382), indicating the model's robustness in predicting respondents' outcomes. Hayes (2009) recommended employing Preacher & Hayes's (2008) method to assess indirect effects, considering the complexity of correlations and biases inherent in searching for multiple mediators. To address these challenges, 5,000 resamples were utilized in the mediation analysis, examining the influence of WE on the SL->IWBs relationship. H4 focuses on WE's mediating role between SL->IWBs. The data indicates that WE partially mediates this relationship, with a standardized beta coefficient of 0.103. This positive and significant effect is supported by a t-value of 2.238 and a p-value of 0.025, providing evidence for H4.

Moderating impact of personality characteristics

The study examines OE and CON as moderating mechanisms in workplace relationships. Regarding OE, the findings reveal that it does not meaningfully moderate the association between SL and IWBs, as evidenced by a non-significant β-value (0.019), t-statistic (0.276), and P-value (0.782) in H5. Meanwhile, on the contrary, H6 shows that there is a notable moderating effect of OE on the relationship between SL and work engagement (WE), with a positive value of β= (0.135), and t=4.355, P=0.000, which confirms its statistical significance. Varying from H7, H7 did not moderate the link between WE and IWBs by OE, as demonstrated by β=-0.064, t=0.948), P=0.343 (see Table 3 and Figure 3). This also means that employees with high OE scores should have better chances to be engaged in their job when they participate actively in SL behaviors. Nevertheless, OE only announces a weak decrease in the relationship between SL and innovative work behavior (IWBs) and in the relationship between WE and IWBs. This implies that although OE might improve workers' performance in terms of some work activities, it is not yet determined whether it will raise the innovative behavior of individuals.



OE moderating impact on SL-IWBs, SL-WE, and WE-IWBs



CON moderating impact on SL-IWBs, SL-WE, and WE-IWBs

Figure 3: Moderation results

On the other hand, when examining the moderating effects of CON, the results vary. Table 3 and Figure 3, H8, CON does not significantly moderate the relationship between WE and IWBs, as evidenced by a non-significant β -value (-0.067), T statistic (0.920), and P value (0.357). Similarly, in H9, CON does not significantly moderate the relationship between SL and IWBs, with a non-significant β-value (0.080), T statistic (1.042), and P value (0.298). However, in H10, CON demonstrates a significant moderating effect on the relationship between SL and WE. The negative β -value (-0.352), combined with a high T statistic (7.661) and very low P value (0.000), suggests strong statistical significance, indicating that CON significantly moderates the relationship between SL->WE. Consociations (CON) exhibit a more nuanced moderating effect. While CON does not significantly moderate the relationship between WE->IWBs or between SL->IWBs, it does significantly moderate the relationship between SL->WE. The negative β-value (-0.352) suggests that CON significantly dampens the relationship between SL and WE. This implies that the presence of strong consociations within the workplace environment may mitigate the positive impact of SL behaviors on work engagement.

Discussion

In Egypt, hotel management remains highly challenging, particularly in the aftermath of the pandemic. This study investigates the association between IWBs, WE, and SL in Egyptian hotels. The study also explores the moderating influence of personality traits on the SL->WE relationship and the mediating effect of WE. Four variables were analyzed, including the moderation effect of OE and CON. The findings revealed that four hypotheses were significant and positive. However, that the moderating effects of OE and CON were insignificant in all relationships except for SL->WE. Firstly, SL positively and significantly influences IWBs and WE. A similar conclusion was drawn by Khalifa, Alkheyi, et al. (2025) who demonstrated that SL is guiding mechanism that helps people recognize their needs, enhance cognitive behavior, focus on work engagement. AlEssa & Durugbo (2022) assert that a creative mindset is the foundation of innovative behavior, facilitating the shift from outdated to modern perspectives and from conventional to advanced way of thinking. Asurakkody & Kim (2020) demonstrated a strong positive association between information-sharing behavior and IWBs, with SL fully mediating this relationship. According to Wen et al. (2023), job engagement, psychological empowerment, and empowering leadership are positively correlated. Psychological empowerment partially mediates the relationship between engaged employees and empowered management. Knotts & Houghton (2021) similarly found that the positive correlation between SL->WE, is partially mediated by emotional and normative commitments rather than sustained devotion. From a practical perspective, Gomes et al. (2015) highlight SL's benefits for both organizations and employee well-being. By fostering individual creativity at work, SL positively affects WE. It consist of complimentary behavioral, cognitive, and reward-based processes. Secondly, there is a significant and positive relationship between WE and IWBs. According to van Zyl et al. (2021), IWBs influence employee task performance, with WE playing a major role. Therefore, implementing innovative work techniques is essential to channel employees' engaged energy into productivity. Khan et al. (2024) discovered that CSR activities naturally inspire employees, making their work more engaging and increasing their motivation to conduct their tasks creatively. Their research highlights that cultivating WE requires both professional and personal resources. Gemeda & Lee (2020) found significant positive relationships between WE and work outcome indicators. Additionally, Work involvement moderated the relationship between leadership styles and job performance. Thirdly, the mediating effect of WE between SL and IWBs is significant. Lei et al. (2021) found a consistent results, demonstrating that WE serves as a pathway for engaging employees in IWBs based on the Job Demands-Resources (JD-R) Model, where WE works as a mediator. According to Gulzar & Mehraj (2018), employees with higher level of work engagement are more likely to collaborate, assist others, and exchange information with coworkers. A study on Chinese millennials confirmed that employee engagement plays a vital role in enlarging innovation by increasing employee involvement and understanding IWBs (Khalifa et al., 2023). Ng et al. (2021) found that job satisfaction among health professionals was positively correlated with WE and organizational citizenship behavior. Furthermore, Work involvement has been identified as a significant predictor of OCB. Moreover, job involvement partially mediates the association between OCB and job satisfaction. Finally, regarding the moderating effects of OE and CON, the results indicate that all hypotheses were insignificant, except for the moderation of OE and CON in the relationship between SL and WE. Previous literature has examined the moderating effects of OE and CON (Dishon-Berkovits et al., 2024; Hoxha & Ramadani, 2023; Zaki et al., 2025). The findings align with Cui et al. (2022), who showed the moderating effect of OE on the relationship between SL and occupational engagement among Chinese employees. Their study found OE mediates the link between SL and WE. The study found that OE mediates the link

between SL and WE. He and Li (2023) illustrated how a well-designed tourist attraction can enhance visitor engagement (Hossain et al., 2023; Sudigdo & Khalifa, 2020). They identified significant positive relationships between experience and inspiration among visitors with high OE, using OE as a moderating factor. Mo et al. (2021) found that among individuals less open to new experiences, the association between the descriptive norms and the perceived COVID-19 vaccine effectiveness it was stronger in influencing vaccination intent.

Study implications

This study has revealed some key theoretical implications. Firstly, We employed self-determination theory as physiological characteristics play a crucial role in enhancing employee performance. To achieve autonomous satisfaction, SL encourages people to be self-directed in their ideas, feelings, and behaviors, fostering a high degree of empowerment and self-determination. Simultaneously, participation level reflects personal development, as employees become deeply engaged in their work and derive a sense of value from it. Personality traits such as OE and CON align with SDT. The variation in the moderating effects supports SDT's assertion that individual differences exist. According to Gomes et al. (2015), leadership habit varies among individuals, and its effectiveness is maximized when employees utilize it as a strategic tool for balance. The integration of several theories, such as social cognitive theory and intrinsic motivation theory demonstrated that workers with higher levels of leadership are more motivated to complete tasks with high commitment, foresight, and self-motivation toward of WE. The research contributes to the theoretical understanding of SL in the hospitality industry, specifically in Egypt's luxury hotel sector. This is particularly important, as the luxury segment faces unique challenges and competitive pressures that may influence the SL-IWBs relationship (Khalifa et al., 2023).

The findings from this study have several managerial implications, both for managerial personnel and frontline employees in Egyptian hotels. Firstly, we found that SL plays an important role in fostering IWBs and WE. Therefore, the organizations and Egyptian hotel managers should align efforts to introduce IWBs and develop novel solutions and strategies (Khalifa et al., 2023). Organizations can empower the employees by motivating them to be more engaged and generate innovative ideas (Gherbi et al., 2024; Hossain et al., 2024; Mokabe et al., 2024). Employees should also be encouraged to make independent decisions. Secondly, WE enhances employees' ability to perform IWBs. Hence, managers should cultivate SL skills among hotel employees, as they form the foundation for work engagement and innovation. This can be achieved through training programs, coaching, and creating an organizational environment that permits workforces to take action and be self-oriented and fostering an organizational environment that encourage self-direction and accountability. Managers should align their efforts to enhance WE with the hotel's overall innovation strategy and objectives. This ensures that increased WE directly translates into desired innovative outcomes, such as new product/service development, process improvements, and creative problem-solving. Thirdly, since WE acts as a mediator, organizations can bridge the link between SL and IWBs. SL can facilitate IWBs through WE, promoting employees well-being and job satisfaction. Finally, the moderating effect of OE and CON are significant in the SL- IWBs relationship. Managers should design leadership development programs that account for diverse personality traits. They should also encourage employees to contribute new ideas.

Limitations and scope for further research

Though this study examined several aspects of personality traits and exhibited the role of SL, WE, and IWBs, certain limitations remain. We found that SL and WE play a crucial role in boosting employees and organizational outcomes. However, further exploration is needed regarding the moderating effects of CON and OE. Future researchers can investigate why personal characteristics moderate these relationships. This study relied on convenience sampling. Future research could employ cross sectional and longitudinal study to examine how variations in SL influence WE and IWBs over time. Our findings are limited to tourism context. Future scholars could explore these relationships in other industries. Additionally, beyond personality traits, future studies could incorporate various motivational factors, such as motivation, perception, and career orientation.

References

Abou-Shouk, M. A. & Khalifa, G. S. (2017). The Influence of Website Quality Dimensions on E-purchasing Behaviour and E-loyalty: A Comparative Study of Egyptian Travel Agents and Hotels. *Journal of Travel and Tourism Marketing*, 34(5), 608–623. https://doi.org/https://doi.org/10.1080/10548408.2016.1209151

Aggarwal, A., Nobi, K., Mittal, A. & Rastogi, S. (2022). Does Personality Affect the Individual's Perceptions of Organizational Justice? The Mediating Role of Organizational Politics. *Benchmarking: An International Journal*, 29(3), 997–1026. https://doi.org/https://doi.org/10.1108/BIJ-08-2020-0414

AlEssa, H. S. & Durugbo, C. M. (2022). Systematic Review of Innovative Work Behavior Concepts and Contributions. *Management Review Quarterly* 72(4). https://doi.org/10.1007/s11301-021-00224-x

Aliane, N., Al-Romeedy, B. S., Agina, M. F., Salah, P. A. M., Abdallah, R. M., Fatah, M. A. H. A., Khababa, N. & Khairy, H. A. (2023). How Job Insecurity Affects Innovative Work Behavior in the Hospitality and Tourism Industry? The Roles of Knowledge Hiding Behavior and Team Anti-Citizenship Behavior. *Sustainability*, 15(18), 13956. https://doi.org/https://doi.org/10.3390/su151813956

Alharthi, M. N. A. N. & Khalifa, G. S. (2019). Business Continuity Management and Crisis Leadership: an Approach to Re-Engineer Crisis Performance within Abu Dhabi Governmental Entities. *International Journal on Emerging Technologies*, *10*(2), 32-40

Angelini, G. (2023). Big Five Model Personality Traits and Job Burnout: A Systematic Literature Review. *BMC Psychology*, *11*(1). https://doi.org/10.1186/s40359-023-01056-y

Asurakkody, T. A. & Kim, S. H. (2020). Effects of Knowledge Sharing Behavior on Innovative Work Behavior among Nursing Students: Mediating Role of Self- Leadership. *International Journal of Africa Nursing Sciences*, *12*(May 2019), 100190. https://doi.org/10.1016/j.ijans.2020.100190

Becker, J.-M., Cheah, J.-H., Gholamzade, R., Ringle, C. M. & Sarstedt, M. (2023). PLS-SEM's most wanted guidance. *International Journal of Contemporary Hospitality Management*, *35*(1), 321–346.

Deci, E. L. & Ryan, R. M. (2014). Autonomy and Need Satisfaction in Close Relationships: Relationships Motivation Theory. *Human Motivation and Interpersonal Relationships: Theory, Research, and Applications*, 53–73. https://doi.org/https://doi.org/10.1007/978-94-017-8542-6_3

Dishon-Berkovits, M., Riva, E. & Lucchini, M. (2024). The Relationship Between Job Demands, Resources and Subjective Wellbeing: The Role of Work-Family Conflict Across The Life Course. *Current Psychology*, *43*(9), 8085–8101. https://doi.org/10.1007/s12144-023-04955-w

EHA. (2023). *Egyptian Hotel Association, Egyptian hotels*. Available at http://egyptianhotels.org.eg/en/index.php?page=hotel-search&search_type=&search=search&city=CAIRO&hotel_type=hotels&category=*****&hotel_name=&search_x=10&search_y=11

Elshaer, A. M., Khalifa, G. S. A., Guirat, R. Ben, Bulatovic, I., El-Aidie, S. A. M. & Marzouk, A. M. (2024). Managing Stress and Building Resilience in Tourism and Hospitality Entrepreneurship : The Power of Psychological and Social Capital. *Journal of Tourism and Services*, *15*(28), 89–115. https://doi.org/https://doi.org/10.29036/jots.v15i28.601

Elshaer, A. M., Marzouk, A. M. & Khalifa, G. S. A. (2023). Antecedents of Employees' Perception and Attitude to Risks: The Experience of Egyptian Tourism and Hospitality Industry. *Journal of Quality Assurance in Hospitality & Tourism*, *24*(3), 330–358. https://doi.org/10.1080/1528008X.2022.2050877

Fornell, C. & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, *18(1)*, 39–50.

Gemeda, H. K. & Lee, J. (2020). Leadership Styles, Work Engagement and Outcomes among Information and Communications Technology Professionals: A Cross-National Study. *Heliyon*, *6*(4), e03699. https://doi.org/10.1016/j.heliyon.2020.e03699

Gherbi, E. A. H., Khalifa, G. S. A. & Kwilinski, A. (2024). Mitigating CO2 Emissions through Economic Growth, Green Finance, and Renewable Energy: Evidence from an ARDL Analysis. *Forum Scientiae Oeconomia*, *12*(4), 99–121. https://doi.org/10.23762/FSO_VOL12_NO4_6

Gomes, C., Curral, L. & Caetano, A. (2015). The Mediating Effect of Work Engagement on The Relationship Between Self-Leadership and Individual Innovation. *International Journal of Innovation Management*, *19*(1), 1550009. https://doi.org/10.1142/S1363919615500097

Grošelj, M., Černe, M., Penger, S. & Grah, B. (2021). Authentic and Transformational Leadership and Innovative Work Behaviour: The Moderating Role of Psychological Empowerment. *European Journal of Innovation Management*, *24*(3), 677-706. https://doi.org/10.1108/EJIM-10-2019-0294

Hair, J. F., Hult, G. T. M., Ringle, C. & Sarstedt, M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)* (2nd ed.). Thousand Oaks: SAGE.

Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical Mediation Analysis in the New Millennium. *Communication Monographs*, 408–420.

Hollebeek, L. D., Hammedi, W. & Sprott, D. E. (2023). Consumer Engagement, Stress, and Conservation of Resources Theory: A Review, Conceptual Development, and Future Research Agenda. *Psychology and Marketing*, *40*(5), 926–937. https://doi.org/10.1002/mar.21807

Hong, V. T. T., Khalifa, G. S. A., Hossain, M. S., Trung, N. V. H., El-Aidie, S. A. M., Hewedi, M. M. & Ali, E. M. S. (2023). Determinants of Customer Engagement Behaviour in Hospitality Industry : Evidence from Vietnam. *International Journal of Business Environment*, *14*(1), 94–118. https://doi.org/10.1504/IJBE.2022.10048688

Hossain, M. S., Khalifa, G. S. A., Patwary, A. K., Akter, M. S. & Pervez, M. O. (2024). Unravelling the Nexus Between Antecedents of Customer Satisfaction and Innovative Service Acceptance in Restaurants. *Journal of Culinary Science & Technology*, 1–21. https://doi.org/https://doi.org/10.1080/15428052.2024.2345311

Hossain, M. S., Sambasivan, M., Abuelhassan, A. E. & Khalifa, G. S. A. (2023). Factors Influencing Customer Citizenship Behaviour in the Hospitality Industry. *Annals of Leisure Research*, *26*(1), 65–88. https://doi.org/10.1080/11745398.2020.1850302

Hoxha, S. & Ramadani, R. (2023). The Impact of Collectivistic Values and Psychological Needs on Individual Performance with Conscientiousness Acting as a Moderator. *Sustainability (Switzerland)*, *15*(14). https://doi.org/10.3390/su151410746

Huang, D. & Zhou, H. (2024). Self-Sacrificial Leadership, Thriving at Work, Workplace Well-Being, and Work–Family Conflict During the COVID-19 Crisis: The Moderating Role of Self-Leadership. *BRQ Business Research Quarterly*, *27*(1), 10–25. https://doi.org/10.1177/23409444231203744

Inam, A., Ho, J. A., Sheikh, A. A., Shafqat, M. & Najam, U. (2023). How Self Leadership Enhances Normative Commitment and Work Performance by Engaging People at Work? *Current Psychology*, *42*(5), 3596–3609. https://doi.org/10.1007/s12144-021-01697-5

Jan, G., Mohamed Zainal, S. R. & Panezai, B. A. (2022). Service Innovative Work Behavior in the Hotel Firms: The Role of Servant Leadership and Harmonious Passion. *Journal of Human Behavior in the Social Environment*, *32*(5), 646–662. https://doi.org/https://doi.org/10.1080/10911359.2021.1944419

Jnaneswar, K. & Ranjit, G. (2023). Unravelling the Role of Organizational Commitment and Work Engagement in the Relationship Between Self-Leadership and Employee Creativity. *Evidence-Based HRM: A Global Forum for Empirical Scholarship*, *11*(2), 158–176. https://doi.org/10.1108/EBHRM-08-2021-0164

Khalifa, G. S. A. (2020). Factors Affecting Tourism Organization Competitiveness : Implications for the Egyptian Tourism Industry. *African Journal of Hospitality, Tourism and Leisure*, *9*(3), 116–130. https://doi.org/https://doi.org/10.46222/ajhtl.19770720-8

Khalifa, G. S. A., Abuelhassan, A. E., Khreis, S. H. A., Soliman, M. & & Hossain, M. S. (2023). Innovation Mechanism in Hospitality Industry: A Mediated-Moderated Model. *Journal of Tourism and Services*, *26*(14), 173–196. https://doi.org/10.29036/jots.v14i26.492

Khalifa, G. S. A., Alkheyi, A. A. S. A., Hossain, M. S., Alneadi, K. M., El-Aidie, S., & Alhaj, B. K. (2025). Organisational Performance from a Resource-Based View: A Study of Public Service Sector in the United Arab Emirates. *International Journal of Public Sector Performance Management*, *15*(1), 90–109.

Khalifa, G. S., Elshaer, A. M., El-Aidie, S. A., Yee, A. S. V., Farhan, A. & Gherbi, E. A. H. (2024). ChatGPT's Challenges and Opportunities in Higher Education: A Technology-User (s)-Environment Lens. *International Journal of Management in Education*, *18*(5), 453-480. https://doi.org/10.1504/IJMIE.2024.10063603

Khalifa, G. S. A., Elshaer, A. M., Hussain, K. & Elnagar, A. K. (2025). What Drives Customers' Participation Behaviour? Unveiling the Drivers of Affective Satisfaction and its Impacts in The Restaurant Industry. *Journal of Hospitality and Tourism Insights*, *8*(2), 612–636. https://doi.org/10.1108/JHTI-01-2024-0100

Khalifa, G. S. A., Trung, N. V. & Hossain, M. S. (2022). Predicting Customer Engagement Behaviour: The Mediating Role of Hotel Functional Quality in the Vietnamese Hotel Industry. *International Journal of Services and Operations Management*, *43*(3), 312–337. https://doi.org/10.1504/IJSOM.2020.10035316

Khan, S. K., Benhamed, A., Soliman, M. & Khalifa, G. S. A. (2024). Understanding Corporate Social Responsibility's Influence on Brand Reputation, Employer Branding, and Performance. *Tourism & Management Studies*, *20*(4), 73–84. https://doi.org/https://doi.org/10.18089/tms.20240406

Knotts, K. G. & Houghton, J. D. (2021). You Can't Make Me! The Role of Self-Leadership in Enhancing Organizational Commitment and Work Engagement. *Leadership & Organization Development Journal*, *42*(5), 748–762. https://doi.org/https://doi.org/10.1108/LODJ-10-2020-0436

Kundan, Z., Hossain, M. S. & Khalifa, G. S. A. (2022). Factors Determining the COVID-19 Vaccinated Tourists' Intention to Repeat Behaviour: An Empirical Perspective for a New Normal. *Sustainability*, *14*(21), 13888. https://doi.org/10.3390/su142113888

Kyei-Frimpong, M., Berko Obeng Damoah, O. & Osafroadu Amankwah, M. (2024). Modeling Innovative Work Behavior Through Leadership Behaviors in the Hospitality Industry; The Role of Work–Family Enrichment. *Journal of Hospitality and Tourism Insights*, *7*(2), 1010–1030. https://doi.org/10.1108/JHTI-11-2023-0815

Lai, F. Y., Tang, H. C., Lu, S. C., Lee, Y. C. & Lin, C. C. (2020). Transformational Leadership and Job Performance: The Mediating Role of Work Engagement. *SAGE Open*, *10*(1), 1–11. https://doi.org/10.1177/2158244019899085

Lee, C.-C., Qin, S. & Li, Y. (2022). Does Industrial Robot Application Promote Green Technology Innovation in the Manufacturing Industry? *Technological Forecasting and Social Change*, *183*, 121893. https://doi.org/https://doi.org/10.1016/j.techfore.2022.121893

Lei, C., Hossain, S., Mostafiz, I. & Khalifa, G. S. A. (2021). Factors Determining Employee Career Success in The Chinese Hotel Industry : A Perspective of Job-Demand Resources Theory. *Journal of Hospitality and Tourism Management*, *48*(September), 301–311. https://doi.org/10.1016/j.jhtm.2021.07.001

Mo, T., Layous, K., Zhou, X. & Sedikides, C. (2022). Distressed But Happy: Health Workers and Volunteers During the COVID-19 Pandemic. *Culture and Brain*, *10*(1), 27–42. https://doi.org/10.1007/s40167-021-00100-1

Mokabe, M., Setokoe, T. J. & Ramukumba, T. (2024). The Leadership Role in Sustainable Community-Based Tourism Development Within a Rural Setting. *African Journal of Hospitality, Tourism and Leisure*, *13*(2), 342–350. https://doi.org/10.46222/ajhtl.19770720.515

Mustafa, M., Coetzer, A., Ramos, H. M. & Fuhrer, J. (2021). Exploring the Effects of Small- and Medium-Sized Enterprise Employees' Job Satisfaction on their Innovative Work Behaviours: The Moderating Effects Of Personality. *Journal of Organizational Effectiveness*, *8*(2), 228–250. https://doi.org/10.1108/JOEPP-07-2020-0133

Ng, L.-P., Choong, Y.-O., Kuar, L.-S., Tan, C.-E. & Teoh, S.-Y. (2021). Job Satisfaction and Organizational Citizenship Behaviour Amongst Health Professionals: The Mediating Role of Work Engagement. *International Journal of Healthcare Management*, *14*(3), 797–804. https://doi.org/https://doi.org/10.1080/20479700.2019.1698850

Nurjaman, K., Marta, M. S., Eliyana, A., Kurniasari, D. & Kurniasari, D. (2019). Proactive Work Behavior and Innovative Work Behavior: Moderating Effect of Job Characteristics. *Humanities and Social Sciences Reviews*, *7*(6), 373–379. https://doi.org/10.18510/hssr.2019.7663

Ozdemir, O., Dogru, T., Kizildag, M. & Erkmen, E. (2023). A Critical Reflection On Digitalization for the Hospitality and Tourism Industry: Value Implications for Stakeholders. *International Journal of Contemporary Hospitality Management*, *35*(9), 3305–3321. https://doi.org/https://doi.org/10.1108/ijchm-04-2022-0535

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.

Singh, L. B. & Mehdi, S. A. (2022). Entrepreneurial Orientation & Entrepreneurial Intention: Role of Openness to Experience as a Moderator. *The international journal of management education*, *20*(3), 100691. https://doi.org/10.1016/j.ijme.2022.100691

Soliman, M. R., Baher, M., & Soliman, D. M. (2022). Digital Literacy and its Effect on Employees' Innovation in Egyptian Official Tourism Organizations. *African Journal of Hospitality, Tourism and Leisure*, *11*(6), 2079–2091.

Stewart, G. L., Carson, K. P. & Cardy, R. L. (1996). The Joint Effects of Conscientiousness and Self-Leadership Training on Employee Self-Directed Behavior In A Service Setting. *Personnel Psychology*, *49*(1), 143–164.

Sudigdo, A. & Khalifa, G. S. A. (2020). The Impact of Islamic Destination Attributes on Saudi Arabians' Decision to Visit Jakarta: Tourism Destination Image as a Mediating Variable. *International Journal of Religious Tourism and Pilgrimage*, *8*(3), 3. https://doi.org/10.21427/4raj-ky56

Van den Broeck, A., Howard, J. L., Van Vaerenbergh, Y., Leroy, H. & Gagné, M. (2021). Beyond Intrinsic and Extrinsic Motivation: A Meta-Analysis on Self-Determination Theory's Multidimensional Conceptualization of Work Motivation. *Organizational Psychology Review*, *11*(3), 240–273.

van Zyl, L. E., van Oort, A., Rispens, S. & Olckers, C. (2021). Work Engagement and Task Performance within a Global Dutch ICT-Consulting Firm: The Mediating Role of Innovative Work Behaviors. *Current Psychology*, *40*(8), 4012–4023. https://doi.org/10.1007/s12144-019-00339-1

Widjaja, Y. I., Khalifa, G. S. & Abuelhassan, A. E. (2020). The Effect of Islamic Attributes and Destination Affective Image on the Reputation of the Halal Tourism Destination of Jakarta. *Journal of Environmental Management & Tourism*, *11*(2 (42), 299-313

Wen, J., Huang, S. (Sam) & Teo, S. (2023). Effect of Empowering Leadership on Work Engagement via Psychological Empowerment: Moderation of Cultural Orientation. *Journal of Hospitality and Tourism Management*, *54*, 88–97. https://doi.org/10.1016/j.jhtm.2022.12.012

Zaki, K., Alhomaid, A., Ghareb, A., Shared, H., Raslan, A., Khalifa, G. S. A. & Elnagar, A. K. (2025). Digital Synergy and Strategic Vision: Unlocking Sustainability-Oriented Innovation in Saudi SMEs. *Administrative Sciences*, *15*(2). https://doi.org/10.3390/admsci15020059

Zhang, H. & Xu, H. (2021). Improving Internal Branding Outcomes through Employees' Self-Leadership. *Journal of Hospitality and Tourism Management*, *46*, 257–266. https://doi.org/https://doi.org/10.1016/j.jhtm.2020.12.013