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**Effects of envy on frontline extra-role service behaviors:
The role of employee resilience.**

Elisa Rescalvo-Martin*, Ph.D., Assistant Professor

Department of Business Administration, Business Management Faculty,

University of Granada, Granada, Spain

Email: elirescalvo@ugr.es

Leopoldo Gutierrez, Ph.D., Professor

Department of Business Administration, Business Management Faculty,

University of Granada, Granada, Spain

Email: leogg@ugr.es

F. Javier Llorens-Montes, Ph.D., Professor

Department of Business Administration, Business Management Faculty,

University of Granada, Granada, Spain

Email: fllorens@ugr.es

*Corresponding author

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ABSTRACT

This study investigates the extent to which organizations can strategically leverage employee envy to enhance their customer-service-oriented behaviors. Our investigation entails an exploration of the intricate relationship between employee envy and two contrasting behaviors: observational learning and social undermining. We delve into how envy indirectly impacts employee performance in service work contexts—namely, extra-role customer service, through these two behaviors. Finally, we evaluate the potential moderating role of employee resilience within these indirect dynamics. The proposed moderated mediation model is empirically tested using data gathered from 300 employees and employing structural equation modeling. The findings underscore that envy is intricately linked to both constructive and destructive behaviors, which in turn exert opposite influences on extra-role service. We reveal how employee resilience attenuates the indirect negative connection between envy and extra-role service through social undermining. Therefore, it becomes into a tool for HR policies aiming to tackle these dynamics.

Keywords: Employee Envy; Social Undermining; Observational Learning; Extra-role Service; Employee Resilience.

Introduction

Being envious or suffering the envy of others is a common place in work environments. As is known, envy arises from comparison and competition: envy between employees 'surfaces when [one employee] lacks and desires others' superior qualities, achievements, or possessions' (Duffy et al., 2012, p. 643). Numerous studies have highlighted the relevance of employee envy as a critical factor influencing various organizational outcomes, with important implications for human resource management (HRM) practices. Findings indicate that envy—particularly in its malicious form—is positively associated with counterproductive work behaviors (e.g., Cohen-Charah and Mueller, 2007; Duffy et al., 2012; Ghadi, 2018; Lee and Duffy, 2019; Treadway et al., 2019; Zhang et al., 2024), social loafing (Thompson et al., 2016), knowledge hiding (Peng et al., 2020), interpersonal conflict (Wu et al., 2021), and job distress, while also negatively impacting self-esteem (Thompson et al., 2016) and organizational citizenship behaviors directed at both coworkers and the organization (Ghadi, 2018; Kim et al., 2010) and those discretionary behaviors that seek benefiting the organization focused on the service Lim et al. (2024). In contrast, benign envy has shown positive links to creativity (Zhang et al., 2024), learning behaviors (Lee and Duffy, 2019), job engagement (Battle and Diab, 2022) and employee performance (Khan and Noor, 2020). Furthermore, envy climates have been found to foster intragroup conflict, indirectly impairing group performance (Wu et al., 2021). These results suggest that HRM strategies should not only aim to identify and mitigate the harmful effects of envy but also to cultivate environments that redirect envious feelings into constructive outcomes.

The service industry—especially hospitality—has been widely acknowledged as highly susceptible to market competition (Li et al., 2016). Within this context, the hotel

sector is known for its intense competitive climate (Murtza & Rasheed, 2023). Frontline employees, who engage directly with guests and collaborate closely with coworkers, are often exposed to social comparison, making them particularly vulnerable to feelings of envy (Kim et al., 2010). Understanding envy is crucial in hospitality, where frontline staff must stay energetic and committed to deliver exceptional service. This includes going beyond formal duties to perform extra-role service behaviors (ERS), which are essential for meeting guest expectations and fostering loyalty (Bettencourt & Brown, 1997; Langford & Weissenberg, 2018; Yuan et al., 2021). Given the voluntary nature of ERS, employee willingness is key—and can be influenced by emotional and contextual factors, como envy. Surprisingly, the way in which employee envy influences their willingness to engage in ERS remains still underexplored. However, the literature on envy points to two possible paths that should be explored to fully explain the phenomenon.

On the one hand, organizational research has traditionally focused on envy's harmful impact at work (Thompson et al., 2016), with studies showing that employees under emotional pressure—especially in face-to-face service roles—may respond to envy through social undermining, a set of behaviors aimed at harming others' relationships, performance, or reputation (Duffy et al., 2012). On the other hand, scholars have begun to explore envy's potential positive effects, such as promoting observational learning (Cohen-Charash & Larson, 2017; Lee & Duffy, 2019). These contrasting responses—destructive or constructive—may lead to opposing effects on ERS. Similarly, recent research has found both positive and negative links between envy and various forms of organizational citizenship behavior (e.g., Ghadi, 2018; Kim et al., 2010; Lim et al., 2024) which share essential aspects with ERS such as discretion or willingness to help, although they differ in the target of that help: the client.

As we have detailed, understanding the dual impact of employee envy on ERS is essential for designing HR strategies that support organizational excellence and sustained competitive advantage. As Duffy et al. (2021) identifies, the field—having long focused on envy’s dark side—now faces the key challenge of understanding how envy can generate both positive and negative outcomes at work. From a HRM perspective, in response to the gap outlined by Duffy et al. (2021), it is essential to grasp how these contrasting and simultaneous envy effects influence expected employee results—such as those linked to performance and service quality (e.g. ERS)— and how organizations can actively manage them to their advantage. Addressing this gap, our study builds on Duffy et al.’s (2021) call by asking:

RQ1: Can employee envy contribute to the emergence of ERS in hospitality settings?

RQ2: More importantly, can this organizations intentionally manage envy—amplifying its constructive effects or minimizing its harmful ones—to foster stronger customer-focused behaviors?

To address these questions, it is important to identify regulatory mechanisms that help HR managers manage envy—a common yet complex workplace emotion. Responding to recent calls to explore moderators of envy’s effects (Li et al., 2021), we examine whether employee resilience, an individual trait influencing work relationships, can serve as a buffer in hotel settings. Research shows resilience supports adaptation to adversity and promotes constructive responses to stress (King et al., 2016; Dai et al., 2019). Given that envy often causes emotional distress (Cohen-Charash & Larson, 2017; Duffy et al., 2021), resilience may help individuals manage its impact. Thus, we propose resilience as a strategic tool in HR policies aimed at managing envy’s dual influence on ERS.

Our research offers multiple contributions. First, it responds to calls to clarify how and when employee envy influences workplace behavior, particularly its potential to generate not only harm but also benefit (Duffy et al., 2021; Lee & Duffy, 2019; Li et al., 2023). Our findings reveal that envy can both hinder and promote the emergence of extra-role service behaviors (ERS), central to service excellence. In doing so, we advance the ongoing debate on envy's dual nature in organizations (Cohen-Charash & Larson, 2017; Duffy et al., 2021). Second, we address the need to identify regulatory mechanisms for managing this pervasive emotion (Li et al., 2023). Through a moderated mediation model, we show how employee resilience can buffer envy's effects on ERS, positioning resilience as a strategic HR asset for enhancing service-oriented behavior.

Literature review and hypotheses

Social Comparison Theory as a theoretical framework

Social Comparison Theory provides strong support for the effects of envy in the workplace and the processes that underlie its effects. Social Comparison Theory (SCT), initially developed by Festinger (1954), has subsequently been revisited on different occasions (e.g. Brown et al., 2007). All the variants are based on the premise that people often evaluate their skills or possessions against those of peers, particularly in ambiguous circumstances. In the workplace, these comparisons serve as a way to evaluate one's progress, gauge one's contributions, and manage uncertainty (Li et al, 2023).

According to SCT (Festinger, 1954), employees use others as reference points to evaluate themselves and draw conclusions about their own circumstances. In other words, employees monitor their own and their colleagues' achievements through indicators such as public recognition, promotions, access to superior resources, and regular, visible rewards. When social comparison outcomes pose a threat to an individual's professional

identity, they are likely to feel a frustrating and painful emotion like envy. This emotion can drive them to either strive for improvement or feel motivated to reduce their discomfort. The impact of social comparison, along with the social network structure and an individual's place within it, play crucial roles in shaping their responses to these comparisons and the experience of envy (Yuniati & Sitinjak, 2022).

In our proposed model, we focus on what the responses to the comparisons (reaction behavior responses), what are the effects of those responses on the employee's tasks (e.g., task service behaviors) and what mechanisms can modify the comparisons or their effects. Regarding the negative effects of envy, SCT explains that when employees compare themselves to colleagues, this comparison can evoke negative emotions and hostility, especially if the advantages of the envied colleague are perceived as unfair or undeserved. Conversely, if the comparison is adequately motivating it can drive employees to improve their skills or competencies, leading to enhanced performance. Finally, SCT explains that a greater ability within individuals to manage the destructive or constructive emotions generated by comparisons—such as through higher levels of resilience—can alter the impact of these comparisons on the effects of envy.

Employee envy

In the past two decades, academics' interest in envy has increased considerably (see review by Duffy et al. 2021). A variety of findings from recent research demonstrate the extent to which employee envy is a particularly relevant issue for the HRM field, due to its sometimes positive, sometimes negative impact on various outcomes closely tied to service delivery. Table 1 outlines the scope and effects of workplace envy as highlighted in recent studies.

Table 1. *Implications of employee envy for HRM practices*

Source	Envy elicitation	Explained construct	Findings
Battle and Diab (2022)	Malicious envy Benign envy	Job engagement Turnover intention	Malicious envy was positively linked to employees' intentions to resign. Similarly, benign envy was a significant indicator of enhanced job engagement
Cohen-Charah and Mueller (2007)	Episodic envy	Interpersonal counterproductive work behavior	Envy demonstrated a positive relationship with behaviors that undermine interpersonal dynamics in the workplace.
Duffy et al., (2012)	Employee envy	Moral disengagement Social undermining at work	Envy was positively linked to moral disengagement and predicted greater social undermining. This indirect effect, via moral disengagement, was stronger when social identification was low.
Ghadi, M. Y. (2018)	Workplace envy	Counterproductive Work behaviors (CWB) Organizational citizenship behaviors (OCB)	Workplace envy reduced organizational citizenship behaviors and heightened counterproductive work actions
Khan and Noor (2020)	Malicious envy Benign envy	Employee performance	Benign envy was positively and significantly associated with employee performance, whereas malicious envy showed no significant connection.
Kim et al., (2010)	Employee envy	Organizational citizenship behaviors directed at individuals (OCB-I) Organizational citizenship behaviors directed at the organization (OCB-O)	Envious employees were less likely to assist coworkers (OCB-I), though their supportive actions toward the organization (OCB-O) remained unaffected.
Lee and Duffy, (2019)	Envy	Job performance Employee learning behaviors Employee social undermining behaviors	No association emerged with enhanced job performance, whereas constructive learning behaviors and interpersonal harm both showed significant positive links.
Lim et al., (2024)	Employee envy	Service-oriented organizational citizenship behavior (SOOCB)	Experiencing envy in the workplace was associated with a decline in discretionary behaviors benefiting the organization (SOOCB)
Peng et al., (2020)	Envy	Employee Knowledge Hiding	Envy showed a direct and positive association with knowledge hiding.
Thompson et al., (2016)	Envy	Employee distress Self-esteem Social loafing	Envy was significantly and positively linked to job-related distress. It also showed a direct negative association with employee self-esteem and a direct positive effect on social loafing.
Wu et al., (2021)	Envy climate	Intragroup relationship conflict Group performance	A significant positive link was identified between an envy-driven climate and intragroup relational conflict. Additionally, the indirect impact on group performance—mediated by this conflict—was also significant.
Zhang et al., (2024)	Peers' malicious envy Peers' benign envy	Workplace ostracism Employee creativity	Coworkers' benign envy was positively associated with employee creativity, whereas their malicious envy corresponded with increased workplace ostracism.

Envy has long been linked to destructive workplace behaviors. For example, Cohen-Charash and Mueller (2007) found that employees reported increased behaviors that undermine interpersonal dynamics in the workplace, while Duffy et al. (2012) reported that employee envy was associated with higher levels of moral disengagement, which in turn predicted greater social undermining. This indirect effect, via moral disengagement, was stronger when social identification was low. However, emerging empirical evidence suggests that this painful emotion may also generate positive outcomes for individuals and organizations—for instance, Lee and Duffy (2019) found that employees reported increased levels of motivational behaviors in response to competitive envy, while more recently, Zhang et al. (2024) showed that a benign form of envy was associated with enhanced employee creativity. This evolving view has led to two competing conceptual frameworks that seek to explain the mechanisms through which envy operates.

On one side, some scholars propose that there are two distinct types of envy—benign and malicious—each producing independent and mutually exclusive effects (e.g., Feng et al., 2021). This dualistic perspective assumes that the nature of the envy itself determines whether it leads to constructive or destructive responses. On the other side, a growing body of literature argues for a more integrated and nuanced approach, suggesting that envy should be understood as a single, complex emotional construct with multifaceted consequences (Cohen-Charash & Larson, 2017; Lee & Duffy, 2019). According to this view, individuals respond to the discomfort of envy by adopting various behavioral strategies aimed at reducing the perceived gap between themselves and the envied target. Importantly, these responses—whether constructive or harmful—may not be mutually exclusive. Some authors argue that they can coexist within the same

individual, even emerging simultaneously depending on contextual or individual factors (Cohen-Charash & Larson, 2017).

Despite this theoretical divergence, both perspectives converge on several foundational assumptions. First, envy is inherently aversive, often accompanied by emotional discomfort. Second, it is a pervasive workplace emotion that can affect employees at any hierarchical level (Ghadi, 2018). Third, it serves as a motivational force capable of triggering action. In this regard, Duffy et al. (2021) provide a comprehensive framework distinguishing two broad categories of behavioral responses to envy: constructive behaviors, aimed at self-improvement and emulation of the envied target, and destructive behaviors, aimed at undermining or harming that target to reduce the perceived disparity. This dual-response model offers a useful lens through which to understand how envy may shape employee behavior in service contexts, where cooperation, performance, and social dynamics are especially salient.

Building on this understanding, our study aligns with the latter stream of research, treating envy as a complex emotional driver that may simultaneously evoke contrasting behavioral responses. We seek to explore how these opposing reactions—observational learning and social undermining—mediate the influence of envy on extra-role service behaviors, a critical but understudied outcome in hospitality and customer-facing work environments.

Studying envy from a negative point of view, Wu et al. (2021) found that the emotion affects employees' interpersonal relations negatively, causes social distancing and increasing workplace conflicts. For Kim et al. (2010), in turn, a higher level of envy in frontline employees decreases their helping behavior. In a more general service

environment, other authors have indicated that social undermining may be one response to envy under certain circumstances in the work environment. For example, Duffy et al. (2012) suggest that workers who experience envy in a face-to-face service environment with strict standards and low identification with colleagues respond through behaviors that seek to damage or frustrate colleagues' success—that is, through social undermining. These authors propose the explanation that socio-contextual factors—such as rigidity of workplace standards, lack of employees' identification with their colleagues, or emotional burden of the functions performed—play an important role in employees' choice to respond to envy with social undermining.

When frontline employees feel envy toward people in their work environment with whom they have a very poor relationship or none at all, they may attempt to reduce the bad feeling the envy created quickly, without being considerate or empathizing with their colleagues. Such damaged relationships could explain why employees incline to using social undermining to frustrate other employees' success. Based on the foregoing, we expect that employees who experience envy to include destructive behaviors that seek to damage the envied colleague such as social undermining. We therefore suggest:

H1: Envy is positively linked to social undermining.

At the opposite extreme, research also suggests that employees could respond to envy with constructive behaviors. For example, Zhang et al. (2024) recently investigated the positive effects of workplace envy on employees, including the banking, materials engineering, education, and pharmaceutical industries. Among other, the authors hypothesized a positive effect of envy on employee creativity behaviors. Their results supported the hypothesis, confirming that experiencing envy can lead to an increase in these positive behaviors under specific circumstances. Likewise, Khan and Noor (2020)

examined how envy enhances employee performance in the telecom industry. They proposed that, from the perspective of its positive effects, envy would have a positive impact on employee performance. Similarly, they found that this relationship was positively mediated by social comparisons. Additionally, Battle and Diab (2022) explored whether experiencing envy is necessarily negative for organizations. They investigated the positive impact of envy on employee job engagement. They discovered that the positive relationship held true when the perceived self-efficacy of positive emotions significantly predicted envy.

Particularly interesting for our research, employees reported increased levels proposed that frontline service employees were able to capitalize on envy learning from sent colleagues under concrete circumstances (Battle and Diab, 2022). For the authors, this transmutation of envy into learning behaviors requires that the target to be imitated perform his/her tasks in an environment close enough to be observed by the envier. Specifically, sales employees who performed their tasks in isolation from their colleagues did not respond to envy with learning since isolation made observation impossible (Lee and Duffy, 2019). Based on this finding, they proposed that not all work environments are suitable for employees to envy to transmute into observational learning. A relational proximity could make it easier for employees who experience envy to respond by attempting to emulate the envied colleague's successful behavior. In this sense, hotel work may be suitable for employees to increase their observational learning behaviors. For example, when a hotel front desk clerk attends to a guest in sight of all, another colleague needs not ask for advice or help but can learn from mere observation. Based on the foregoing, we expect when FLEs experience envy, their learning behaviors through observation of the envied peer will increase. We therefore propose that:

H2: Envy is positively linked to observational learning.

The extra-role service (ERS) employee behaviors

One of the most highly regarded skills among service employees is their ability to independently handle non-standard service situations that may arise during interactions with customers in order to meet their expectations. To respond in this way, employees deploy a set of behaviors that go beyond their duties, that is, ERS (Garg & Dhar, 2016; Huertas-Valdivia et al., 2019; Rescalvo-Martin et al., 2021). The discretionary character of this behavior implies that the emergence of ERS will depend on the employee's willingness (Bettencourt & Brown, 1997).

In considering how employees' different reactions to envy can affect ERS, we observe that the constructive vs. destructive orientation of these behaviours is no small issue. For example, employees' actions linked to neurotic personality (such as impulsive reactions or hostile behaviour in the work environment) have been negatively related to the emergence of ERS. Due to the difficulty of controlling oneself emotionally, additional responsibilities are a potential source of problems for them (Youn et al., 2017). Further, evidence shows that behaviour that attempts to damage colleagues—such as workplace ostracism among employees—has a negative impact on ERS performance, as it isolates individuals and reduces their sense of belong to the group, demotivating them from giving the best of themselves (Huertas-Valdivia et al., 2019; Yuan et al., 2021). Destructive behaviour such as social undermining in employee-employee interactions could destroy employees' willingness to commit to discretionary behaviour in service interactions. The results of these studies indicate that the destructive orientation of this behaviour could condition employees' subsequent willingness to ERS. In light of the foregoing, we expect the appearance of social undermining among colleagues to destroy frontline employees'

interest in developing constructive ERS behaviour in employee-customer interaction. Based on the foregoing, we propose that:

H3. Social undermining is negatively related to ERS.

On the other side, a literature review provides evidence that constructive behaviour linked to friendship, integrity, or sincerity enables frontline employees to achieve better service performance, since these behaviours improve their ability to understand and successfully fulfill customers' expectations (Kim et al., 2019). Further, employees who participate in citizen co-worker exchanges, such as mutual learning, view this good relationship with colleagues as a symbol of their relationship to the organisation and return the treatment received by participating in ERS behaviour that directly benefits service quality and thus the hotel's image (Ye et al., 2021). The results of these studies seem to indicate that constructive orientation of behaviour could condition employees' subsequent willingness to commit themselves to ERS. The parallel between the positive effects of other constructive behaviours that precede ERS leads us to believe that observational learning will have similar effects. We thus expect a precedent of constructive behaviour to strengthen the emergence of ERS. Based on the foregoing, we propose that:

H4. Observational learning is positively related to ERS.

Finally, since we expect hotel employees to take two paths of response to an experience of envy—social undermining (H1) and observational learning (H2)—and that these two paths will have negative (H3) and positive (H4) consequences for ERS, we also propose that the different responses to envy may act as mediators for constructing an indirect relationship between envy and ERS. This indirect relationship will thus be negative when the influencing mediator is social undermining and positive when the mediator

observational learning. Based on the foregoing, we propose the following mediation hypothesis:

H5. The relationship between envy and ERS is mediated (a) negatively by social undermining and (b) positively by observational learning.

The moderating role of resilience

From an organizational management perspective, resilience is one's capability of 'recovering from negative emotions and adjusting oneself to the constantly changing environment' (Dai et al., 2019, p. 70). Resilience has been widely related to qualities such as employees' perseverance, trustworthiness and recovery from challenging situations (see Williams et al., 2017). Moreover, has been related to increase in employees' engagement and decrease in their intention to leave under adverse circumstances (Dai et al., 2019).

In a service work environment like hotels, characteristics such as 24/7 service delivery, high levels of emotional work, role inconsistency and high level of rotation make service interactions potential sources of stress for employees (Huertas-Valdivia et al., 2019; Zhao & Ghiselli, 2016). Under these circumstances, envy adds another element of stress in hotel employees' day to day routine. The envious employee must combine all the stressful characteristics of the hospitality service environment with the emotional impact of envy and the urgency of responding in a way that reduces the feeling of perceived inferiority to the envied colleague. And all of this occurs daily in each service interaction. Although we tend to think of resilience as a response to major traumatic experiences, Ong et al. (2006) showed that it is also a useful resource in the face of stressors with which the individual lives day to day. All of the foregoing leads us to think

that employees' resilience level could moderate envy indirect effects on ERS, that is, exert a moderate mediating influence.

We therefore expect that employees who possess high levels of resilience will be able to recover from feeling an urgent threat caused by envy and thus reduce or control the negative influence on ERS through social undermining. Along these lines, prior studies have demonstrated that resilience can neutralize undesirable work-context behavior, such as social undermining, by enabling employees to persevere and face difficult situations without increasing their stress level (Malik & Lenka, 2019; Williams et al., 2017). Further, we propose that a high level of resilience will help employees to focus on the potentially challenging aspects of envy, enabling them to respond by increasing constructive behavior such as observational learning, through which the indirect impact of envy on ERS is also positive. The findings of Waugh et al. (2008) have shown that high levels of resilience help individuals to strengthen positive or challenging aspects of stressful everyday situations, stimulate productive resources for facing them positively and even capitalize on the experience. Considering all of the above, we expect a high level of resilience moderating the indirect effect of envy on ERS through both proposed mediators, social undermining and observational learning. We therefore propose the following moderated mediation hypotheses:

H6a. Resilience moderates the indirect negative effect of envy on ERS through social undermining, making the indirect negative effect less pronounced when resilience levels are higher.

H6b. Resilience moderates the indirect positive effect of envy on ERS through observational learning, such that the indirect positive effect is stronger when resilience levels are higher.

Figure 1 illustrates the proposed moderated mediation model.

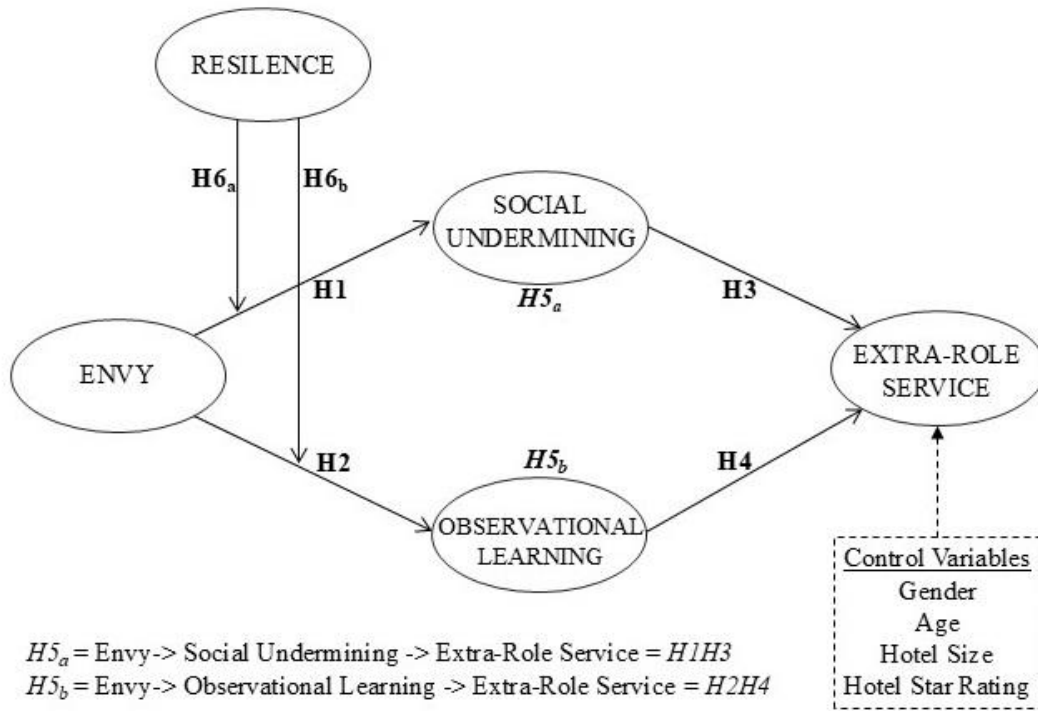


Fig. 1. Research model

Methodology

Sample and procedure

Since deploying ERS behaviors requires filling positions that interact with the customer, we seek to source our data from frontline employees. Specifically, service frontline employees of Spanish hotel companies were chosen because, according to the WTO (2019), Spain leads in reception of international travelers and provision of tourist services is the main contributor to Spain's GDP. In addition, the hotel work environment has been described as competitive and stressful due to both the high emotional work and job

uncertainty of employees (Huertas-Valdivia et al., 2019). Therefore, it was considered a suitable context for an investigation of the impact of envy on ERS behaviors. We selected the participants through convenience sampling. This is common sampling in HRM research when researchers seek to ensure a specific characteristic in the sample (i.e., high customer interaction) (e.g., Kim et al., 2022; Raineri & Valenzuela-ibarra, 2021). Hospitality sector research is also common due to the particular characteristics of employment in hotels (e.g., Elche et al., 2020; Grobelna, 2021; Le et al., 2023; Rescalvo-Martin et al., 2022).

Due to the fact that the variable to be explained in the research model requires direct and regular contact with guests, we used two criteria consistent with prior studies (e.g., Huertas-Valdivia et al., 2019; Karatepe et al., 2024) to select participants. First, we limit our sample to employees in direct and daily contact face-to-face with customers (mainly front desk employees). Second, we chose full-time nonmanagerial employees to guarantee that participants interacted as much as possible with guests. The objective of these criteria was to guarantee a sample with high direct interaction with the host that provides quality responses in the measurement of ERS.

Researchers personally administered the questionnaires to FLEs. The participants were clearly informed that although the hotel agreed to their participation in the research, they were free to accept or decline our invitation. Data collection began after generally explaining the objective of the research and collecting informed consent from the volunteer FLEs. After eliminating incomplete questionnaires, we obtained 300 valid cases that made up a sample of employees who met the established criteria. Table 2 summarizes the respondent characteristics.

Table 2. *Sample characteristics (n=300)*

Respondent Characteristics	Percentage
Hotel Characteristics	
Hotel star rating: 3 stars/4 stars/5 stars	43/49/8
Hotel size: <21 employees/21-49 employees/>49 employees	62/26/12
Respondent Characteristics	
Gender: male/female	49/51
Age: <30 years/30-44 years/>44 years	40/48/12
Education: compulsory/non-compulsory and higher	10/90

Finally, we conduct statistical power analysis. F test was performed under the following parameters: mean effect size $f^2 = 0.150$, an error probability of $\alpha = 0.05$, a power level = 0.95 level, and the largest number of predictors = 5. The result showed that a minimum of 138 participants were necessary for the sample to reach sufficient statistical power. The sample consists of 300 participants, making it appropriate and sufficient to evaluate the hypothesized relationships.

Common Method Bias (CMB)

The data collection process was designed to minimize the risk of common method bias (CMB), following the procedural recommendations outlined by Podsakoff et al. (2003). From a procedural standpoint, several steps were taken to ensure the reliability and integrity of participant responses. First, we personally visited each participating hotel to explain the study's purpose, guarantee confidentiality, and reinforce the voluntary nature of participation. During these visits, participants were assured that their responses would remain anonymous and that their honesty was valued above all—no judgment would be made regarding the content of their answers. Each questionnaire included clear written instructions emphasizing this point. To further protect participant anonymity and reduce

social desirability bias, sealed envelopes were provided for questionnaire return, and all completed surveys were collected in person by the research team to maintain data security. Additionally, to avoid priming or influencing participant responses, we deliberately avoided labeling the study variables within the questionnaire. A psychological separation between predictor and outcome variables was also established by dividing the survey into distinct sections and inserting a reminder of the study's confidentiality, along with additional reassurances regarding voluntary participation, between these sections.

Beyond these procedural safeguards, we also addressed the issue of CMB from a statistical perspective. Drawing from Min et al. (2016), we employed Harman's single-factor test, a widely used method to assess whether a single factor accounts for the majority of variance in the data—a potential indicator of CMB. To strengthen the analysis, we also followed Kock's (2017) recommendation to evaluate the variance inflation factor (VIF) as an additional indicator. Results from both approaches indicated that no single factor dominated the variance, and all VIF values remained well below the threshold of concern. Therefore, we concluded that CMB was not a significant threat in our dataset.

Measurements

We collected the data using a structured questionnaire that we designed from scales developed in prior studies. Information about scales authors, items used, and scales properties is offered in Table 3. All composites were measured using a 7-point Likert scale, where 1=completely disagree and 7=completely agree. To avoid confusing questions, we performed a pre-test with academics and professionals.

Analytic strategy

We used *Partial Least Squares* structural equation modelling (PLS-SEM) aided by SmartPLS software (v.4). This method is appropriate when researchers seek to test theoretical effects based on complex models that incorporate mediations and moderations and depict abstract ideas as composites that are not immediately measurable (Henseler et al., 2015). Further, PLS-SEM has been deemed a reliable approach for analyzing data featuring both normal and non-normal distributions (Hair et al., 2017). Our study proposes a complex moderated mediation model, using composites measured as reflexive and a collection of data with non-normal patterns. PLS-SEM is thus an appropriate method.

Results

Confirmatory Composite Analysis (CCA)

CCA was employed to test the fit between the correlation matrix for the theoretical model and the matrix for the empirical data (Henseler & Schuberth, 2020). We evaluated overall model fit using the geodesic distance (d_G), unweighted least squares distance (d_{ULS}) and standardized root mean square residual (SRMR) (Henseler et al., 2016). SRMR took values under 0.08 and values of the discrepancies were located below the 99% (HI_{99}) quantile of the confidence interval created from the bootstrap tests (Table 3). Following Henseler et al. (2016), these results indicate that the model should not be excluded since a confirmatory viewpoint.

Table 3. *Confirmatory composite analysis results*

Discrepancy	Saturated Model		Estimated Model		Conclusion
	Value	HI ₉₉	Value	HI ₉₉	
<i>SRMR</i>	0.041	0.042	0.045	0.045	Supported
<i>d_{ULS}</i>	0.745	0.775	0.864	0.879	Supported
<i>d_G</i>	0.327	0.335	0.333	0.342	Supported

Notes: SRMR=Standardized root mean square residual; *d_{ULS}*=Unweighted least squares distance; *d_G*=Geodesic distance.

Measurement model properties

Following Ringle's et al. (2018) guideline, we used several criteria to ensure reliability for reflectively measured composites (results in table 4).

Indicators' factor loadings were studied to confirm that they took statistically significant values generally greater than 0.7 (Hair et al., 2017). The values were above the recommended threshold, with statistical significance around 99% ($p < 0.001$), with the exception of two items. Following Hair et al. (2017), we maintained both indicators because their loading was > 0.4 and because this decision did not affect reliability or validity.

Moreover, our results show that all composites take values considerably higher than the critical limit of 0.7 for Cronbach's Alpha, Dijkstra-Henseler's statistic and Composite Reliability (Ringle et al., 2018), ensuring composite reliability. We confirmed the validity of the composites. Finally, convergent validity at composite level was determined via average variance extracted (AVE). Each composite took AVE values above the critical value of 0.5 (Ringle et al., 2018), providing evidence of convergent validity.

Table 4. *Measurement model: description, operationalization of composites and descriptives*

Definition	Operationalization	Mean	SD	K	S	Item Loadings	Scale Properties
ENVY (Smith et al., 1999)							
	I feel envy of my colleagues every day	3.367	0.812	1.161	1.391	0.758***	
Employee envy which "corresponds to the feelings aroused when one person desires another's advantage (...) is not a simple emotion but rather a blend of affective reactions arising from a multifaceted appraisal" (p. 1008)	I generally feel inferior to my colleagues	2.650	1.087	1.260	1.764	0.791***	$\alpha = 0.899$
	Feelings of envy constantly torment me	3.397	0.840	1.967	1.362	0.771***	$\rho A = 0.904$
	It is so frustrating to see some people succeed so easily	2.827	1.245	0.744	1.395	0.756***	CR = 0.920
	No matter what I do, envy always plagues me	3.450	0.899	1.445	1.090	0.863***	AVE = 0.590
	I am troubled by feelings of inadequacy	2.693	1.802	0.428	0.844	0.617***	
	It somehow doesn't seem fair that some colleagues seem to have all the talent	3.630	1.083	1.855	1.837	0.802***	
	Frankly, the success of my colleagues makes me resent them	3.453	1.024	1.269	1.769	0.766***	
OBSERVATIONAL LEARNING (Lee & Duffy, 2019)							
Behaviors through which employees "can learn about targets' successful behaviors from a distance, minimizing the risk of negative contact" (p. 1089)	I tried to learn from coworker's behavior	5.690	1.419	1.634	-1.332	0.790***	$\alpha = 0.860$
	I carefully observed coworker's behavior	5.557	1.359	0.614	-0.913	0.863***	$\rho A = 0.864$
	I reflected on coworker's behavior	5.470	1.443	0.987	-1.060	0.884***	CR = 0.905
	I try to match my behavior to my coworkers	5.243	1.457	0.359	-0.806	0.818***	AVE = 0.705
SOCIAL UNDERMINING (Lee & Duffy, 2019)							
Employees "interpersonal behaviors to impair the targets' ability to maintain social relationships and achieve success at work" (p. 1088)	I engaged in behaviors intended to damage my coworker's success and reputation	2.423	1.714	0.041	1.045	0.573***	$\alpha = 0.875$
	I insulted some coworker	2.670	1.225	1.041	1.247	0.804***	$\rho A = 0.879$
	I spread rumors about some coworker	3.423	0.926	1.519	1.935	0.881***	CR = 0.914
	I talked badly about some coworker behind his/her back	2.643	1.103	1.787	1.241	0.836***	AVE = 0.728
	I criticized the way coworkers handled things on the job in a way that was not helpful	3.593	1.027	1.773	1.215	0.889***	

RESILIENCE (Smith et al., 2008)							
	I tend to bounce back quickly after hard times	5.340	1.404	-0.457	-0.621	0.886***	
<i>Employee "ability to bounce back or recover from stress, to adapt to the circumstances, and to function above the norm in spite of adversity" (p. 194)</i>	I don't have a hard time making it through stressful events	5.457	1.279	-0.467	-0.595	0.890***	$\alpha = 0.951$
	It does not take me long to recover from a stressful event	5.393	1.290	-0.127	-0.698	0.901***	$\rho A = 0.941$
	It is easy for me to snap back when something bad happens	5.267	1.327	-0.457	-0.525	0.922***	CR = 0.950
	I usually come through difficult times with little trouble	5.247	1.356	-0.123	-0.657	0.893***	AVE = 0.802
	I don't tend to take a long time to get over set-backs in my life	5.327	1.270	-0.414	-0.564	0.881***	
EXTRA-ROLE SERVICE (Bettencourt & Brown, 1997)							
<i>"Discretionary behaviors of contact employees in serving customers that extend beyond formal role requirements" (p. 41)</i>	Voluntarily assist customers even if it means going beyond job requirements	6.123	0.829	1.479	-1.683	0.858***	$\alpha = 0.911$
	Helps customers with problems beyond what is expected or required	6.120	0.851	1.007	-1.867	0.883***	$\rho A = 0.916$
	Often goes above and beyond the call of duty when serving customers	5.950	1.158	1.794	-1.274	0.882***	CR = 0.933
	Willingly goes out of his/her way to make a customer satisfied	6.097	0.823	1.366	-1.508	0.868***	AVE = 0.737
	Frequently goes out the way to help a customer	5.673	1.299	0.655	-1.009	0.798***	

Notes: SD= standard deviation; K= kurtosis; S= skewness; α =Cronbach's Alpha; ρA =Dijkstra-Henseler's statistic; CR=Composite Reliability; AVE=Average Variance Extracted; ***=p<0.001.

The Heterotrait-to-Monotrait (HTMT) method has been recommended for PLS, as it provides greater sensitivity in detecting problems than do alternatives such as cross-loading or the Fornell-Larker criterion (Hair et al., 2024). In our data, the HTMT₈₅ took a maximum value of 0.690, well below the critical threshold of 0.850 (Ringle et al., 2018), achieving discriminant validity (Table 5).

Table 5. *Discriminant validity evaluation*

Variable	HTMT ₈₅				
	1	2	3	4	5
(1) Envy	-				
(2) ERS	0.113	-			
(3) Observational Learning	0.147	0.383	-		
(4) Resilience	0.053	0.326	0.690	-	
(5) Social Undermining	0.629	0.227	0.077	0.039	-

Note: HTMT=Heterotrait-to-Monotrait ratio of correlations; ERS=Extra-role Service

Structural model

Following the recommendations of Ringle et al. (2018), first we evaluated collinearity between each construct using the variance inflation factor (VIF) to discount critical levels that could create estimation problems. Hair et al. (2024) recommend setting a threshold of 3 for evaluating the VIF. Values for all composites remained in a range between 1.018 and 1.517, confirming that collinearity is not a problem in our model.

Through a bootstrapping with 9,999 subsamples and one-tailed test, we investigated the significance and importance of the hypothesized relationships (Fig 2).

First, as expected, envy was positively related to both social undermining ($\beta = 0.594$, $p_{\text{one-tailed}} < 0.000$) and observational learning ($\beta = 0.089$, $p_{\text{one-tailed}} < 0.038$), confirming H1 and H2. The results also showed a negative and significant relationship between social undermining and ERS ($\beta = -0.224$, $p_{\text{one-tailed}} < 0.004$), supporting our

expectations for H3. Similarly, the relationship between observational learning and ERS was positive and significant ($\beta = 0.343$, $p_{\text{one-tailed}} < 0.000$), as expected for H4. No control variables showed a significant relationship with the composites to be explained.

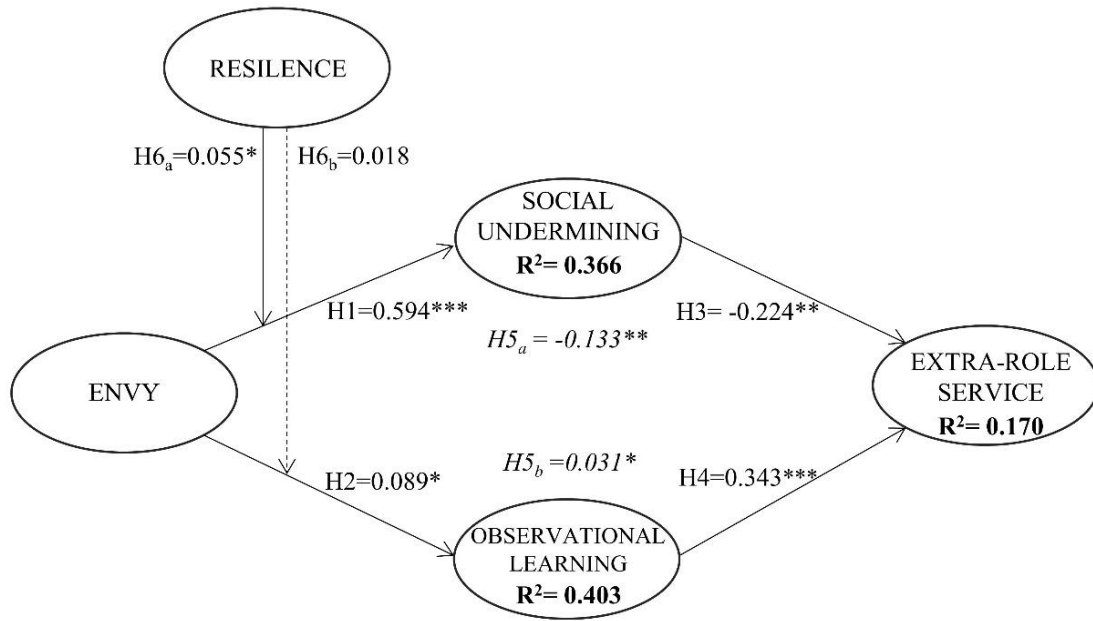


Fig. 2. Results of hypothesis testing

Notes: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$; discontinuous line=nonsignificant relationship.

We analyzed the mediation effects by considering the hypotheses proposed for H5, as well as the implicit direct relationship in our model between envy and ERS. As Table 6 shows, our data does not support a direct relationship between envy and ERS ($\beta = 0.003$, $p_{\text{one-tailed}} > 0.487$). However, both social undermining ($\beta = -0.133$, $p_{\text{one-tailed}} < 0.006$) and observational learning ($\beta = 0.031$, $p_{\text{one-tailed}} < 0.041$) acted as mediators, confirming H5_a and H5_b. This suggests that studying the influence of envy on ERS it is essential to consider mediator variables such as social undermining or observational learning. We thus identify a complete mediation situation in the conditions defined by (Hair et al., 2024).

Table 6. Structural model evaluation

Direct effects	Path Coefficient	p- value	CI	f ²	Conclusion
<i>H1</i> : Envy→ Social Undermining	0.594	0.000	0.480;0.696	0.547	Supported
<i>H2</i> : Envy→ Observational Learning	0.089	0.038	0.007;0.171	0.023	Supported
<i>H3</i> : Social Undermining→ ERS	-0.224	0.004	-0.368;-0.087	0.041	Supported
<i>H4</i> : Observational Learning→ ERS	0.343	0.000	0.234;0.436	0.136	Supported
Mediation effects					
<i>Direct Effect</i>					
Envy→ ERS	0.003	0.487	-0.136;0.135	0.000	No effect
<i>Indirect Effects</i>					
<i>H5a</i> : Envy→ Social Undermining→ ERS	-0.133	0.006	-0.230;-0.054		Full mediation
<i>H5b</i> : Envy→ Observational Learning→ ERS	0.031	0.041	0.004;0.060		Full mediation
<i>Total indirect effects</i>	-0.102	0.048	-0.210;-0.007		
Moderated mediation effects					
<i>H6a</i> : Envy*Resilience→ Social Undermining→ ERS	0.055	0.046	0.013;0.126		Supported
<i>H6b</i> : Envy*Resilience→ Observational Learning→ ERS	0.018	0.243	-0.023;0.063		Not supported
Control variables					
Age→ ERS	0.060	0.125	-0.024;0.146	0.004	
Gender→ ERS	0.114	0.155	-0.077;0.296	0.003	
Hotel star rating→ ERS	0.050	0.404	-0.070;0.163	0.002	
Hotel size→ ERS	0.004	0.949	-0.115;0.117	0.000	

Notes: CI=Confidence Interval based on bootstrap 9,999 subsamples and one-tailed test. Two-tailed test for control variables analysis.

Finally, we analyzed the effects of moderated mediation described in H6_a and H6_b. As Table 6 shows, our data did not confirm H6_b ($\beta = 0.018$, $p_{\text{one-tailed}} > 0.243$). The results for H6_a did, however, confirm that resilience moderated the indirect relationship between envy and ERS through social undermining ($\beta = 0.055$, $p_{\text{one-tailed}} < 0.046$). We used slope plot analysis to graphically represent this moderation (Hair et al., 2024). For a complete representation, we offer in Fig.3 the effect of the moderator on the first section of the mediation, to later present in Fig.4 the effect of high and low values of resilience on the mediated effect of envy on ERS through social undermining. The dotted line represents the relationship between envy and social undermining when resilience takes high values

(medium values +1SD). While the black line represents the relationships studied with low values of resilience (medium values -1SD). Taken together, the charts explain the moderated mediation process. As can be seen in Fig.3, high resilience values are capable of reducing the appearance of social undermining behaviors. Consequently, the negative effect of envy on ERS through social undermining as a mediator is reduced when resilience takes high values (Fig.4).

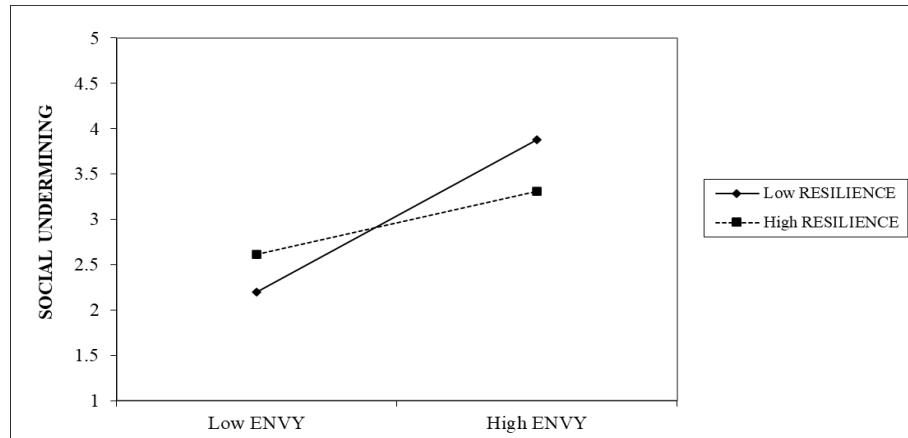


Fig. 3. Moderating effect of resilience on the direct relationship between envy and social undermining

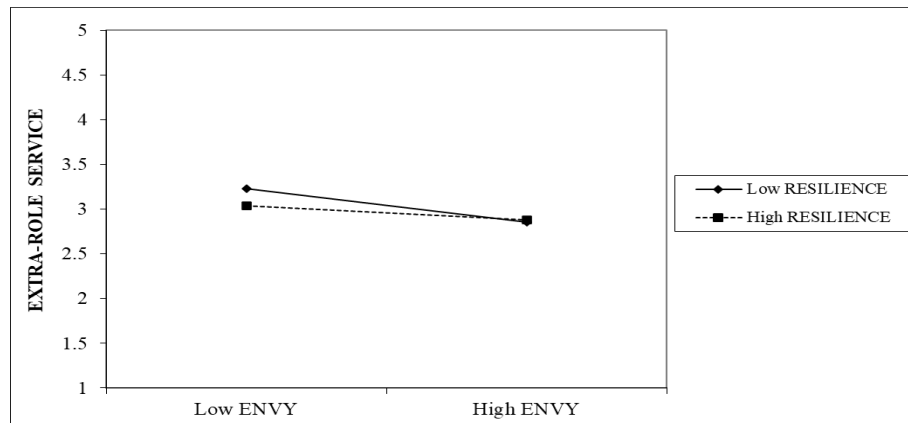


Fig. 4. Moderating effect of resilience on the indirect relationship between envy and ERS through social undermining (H6_a)

Robustness analysis

We test the robustness of our results using supplementary tests suggested by Sarstedt et al. (2020) for a PLS-SEM analysis framework. Therefore, we rule out the possibility of

(1) unconsidered non-linear effects, (2) endogeneity problems in the model, as well as (3) unobserved heterogeneity.

First, based on the previous literature, our model assumed that the proposed effects were linear. To rule out that estimation errors condition our results, we rule out the presence of non-linear effects. As recommended by Sarstedt et al. (2020), we test for the presence of quadratic effects (QE) since these are the most common (p.537). For this, an alternative polynomial model was created following the guideline described in Hair et al., (2024). Results showed nonsignificant interactions for any quadratic terms included in the direct relationships of the proposed model ($QE_{\text{Envy} \rightarrow \text{ERS}}: \beta = -0.012, p_{\text{two-tailed}} > 0.820$; $QE_{\text{Envy} \rightarrow \text{Observational learning}}: \beta = -0.060, p_{\text{two-tailed}} > 0.288$; $QE_{\text{Envy} \rightarrow \text{Social undermining}}: \beta = 0.131, p_{\text{two-tailed}} > 0.071$). Therefore, the analysis offered evidence of robustness for the linear effects proposed in our model.

Second, endogeneity problems indicate, mainly, the omission of constructs in a model tested from regression-based techniques, such as PLS-SEM. Based on the recommendations of Hult et al., (2018), we use the Gaussian copula approach to rule out the presence of endogeneity in the proposed model. We carry out this test based on Becker's et al. (2022). After confirming by Cramer-van Mises test that latent construct scores for the independent variable did not show a normal distribution (p-value >0.05), we created an alternative model that included Gaussian copulas in each path directed to the dependent variable. The test revealed results for all added Gaussian copulas (GC) that were far from significant ($GC_{\text{Envy} \rightarrow \text{ERS}}: \beta = -0.194, p_{\text{two-tailed}} > 0.321$; $GC_{\text{Observational learning} \rightarrow \text{ERS}}: \beta = -0.002, p_{\text{two-tailed}} > 0.984$; $GC_{\text{Social Undermining} \rightarrow \text{ERS}}: \beta = -0.018, p_{\text{two-tailed}} > 0.980$). These results ruled out the presence of endogeneity in the proposed model (Becker et al., 2022; Hult et al., 2018), confirming its robustness.

Finally, we confirm that our data set does not contain subgroups that could bias our results, that is, unobserved heterogeneity. For this, we use the Finite Mixture latent segmentation technique (FIMIX-PLS) which is the most appropriate according to Sarstedt et al. (2020). We started the analysis assuming a one-segment solution, that is, our sample did not present subgroups. A threshold value of 1.10^{-5} as stopping criteria, a maximum number of 5000 interactions for calculations, and 10 repetitions was used. We determined the total number of segments to consider by applying Hair et al.'s (2024) criteria. Thus, we evaluated solutions ranging from one to three segments. The results for Akaike's Information criterion (AIC) and Minimum Description Length with factor 5 (MDL_5) were used as the upper and lower thresholds, respectively, leading us to contemplate a two-segment solution. However, the values for Normed Entropy statistic (EN) for two-segment solution fell below 0.50 ($EN=0.47$), indicating an unclear separation of the segments (Hair et al., 2024). Additionally, the R^2 values for a two-segment solution were not significantly higher than those for the entire dataset. Taken together, the results support a one-segment solution as the most optimal explanation for our data. Therefore, our results based on the entire group of data must be considered robust.

Discussion

Theoretical implications

Our results make several contributions. The first key contribution of this study lies in advancing the ongoing discussion around how envy operates within organizational life, particularly in terms of its nature and consequences (Cohen-Charash & Larson, 2017). Instead of treating envy as a uniformly harmful emotion, we explored its effects within the emotionally intense and socially driven context of hotel work (Kim et al., 2010; Wu et al., 2021; Ye et al., 2021). Our data support the growing view that envy is not a binary

emotion but a multidimensional one that can simultaneously trigger opposing responses. In line with perspectives that reject the binary classification of envy into “good” or “bad” types (e.g., Cohen-Charash & Larson, 2017; Lee & Duffy, 2019), our findings illustrate how individuals may, at the same time, engage in behaviors aimed at harming others (social undermining) and improving themselves (observational learning) when experiencing envy. Failing to acknowledge this duality limits our understanding of how envy truly functions at work. Despite this, research in HRM—particularly within the hospitality sector—has tended to emphasize only the destructive side of envy, overlooking its potential to foster motivation and growth (Kim et al., 2010; Wu et al., 2021; Ye et al., 2021). By treating envy as an emotion capable of producing mixed outcomes, our work encourages a shift in perspective. Rather than framing envy solely as a threat, hotel service organizations might begin to see it as a resource—one that, if understood and managed well, could be leveraged to enhance service performance.

Second, this study contributes to the broader understanding of ERS by introducing a theoretical model that captures the diverse ways envy can shape, or not, employees’ willingness to provide outstanding guest service. Grounded in SCT, our framework moves beyond merely identifying behavioral responses to envy—it explores how those reactions influence task-related service behaviors, and what contextual or psychological mechanisms may shape or alter the impact of those comparisons. Our findings reveal that when employees evaluate themselves against their peers, the result can manifest as either destructive or constructive behavioral patterns. In cases where comparisons are perceived as unjust, feelings of resentment can arise, prompting harmful behaviors such as social undermining and a reduction in ERS. SCT provides a useful lens here, offering insight into why unfair comparisons elicit hostile responses that ultimately hinder service quality.

In contrast, when envy is tied to perceptions of achievable growth, the emotion may act as a motivational force—encouraging learning through observation and skill development that ultimately supports stronger ERS performance. Our analysis supports this dual-path framework but reveals an asymmetry in how envy tends to play out. Specifically, the data show that envy among hotel employees is more frequently associated with harmful behaviors (social undermining) than with constructive responses like observational learning. This contrasts with previous findings by Lee and Duffy (2019), who reported a stronger link between envy and growth-oriented responses such as learning. A possible explanation for this discrepancy lies in the context: hospitality roles, particularly frontline service jobs, are emotionally demanding and often characterized by high levels of stress and burnout (Huertas-Valdivia et al., 2019; Zhao & Ghiselli, 2016). Pursuing constructive change through learning requires additional emotional and cognitive effort—resources that may already be depleted in such settings. Moreover, self-improvement is a gradual process, offering delayed benefits, while socially undermining a peer may provide quicker emotional relief. This immediate, though damaging, outlet may be more appealing to employees operating under constant pressure. Based on these findings, we encourage HRM scholars working in hospitality to reconsider the assumption that envy naturally fosters positive growth and instead explore its tendency to generate negative spillovers on service behavior under stressful working conditions. Moreover, our findings invite further consideration of how employees may misattribute the emotional discomfort caused by envy, sometimes failing to recognize its true origin. In emotional misattribution, “a change in core affect due to one source is misattributed to another” (Russell, 2003). This process may help explain why seemingly opposing behavioral responses—such as efforts to improve performance and tendencies to undermine others—

can emerge simultaneously, adding a psychological dimension to our understanding of emotional regulation in service environments. These insights also extend organizational behavior literature by showing how complex emotions like envy can drive both adaptive and disruptive actions, challenging the conventional view that workplace emotions function in a purely positive or negative manner. In doing so, our model offers a useful platform for developing a broader framework within organizational behavior—one that is especially relevant to service-oriented sectors where emotional labor, interpersonal comparisons, and customer satisfaction are deeply intertwined. Understanding how employees interpret and act on social comparisons can inform the design of emotional management strategies that strengthen service culture and team functioning.

Third, our findings reveal that resilience plays a nuanced, moderating role in the relationship between envy and extra-role service behaviors (ERS), though its influence is limited to specific pathways. Drawing on SCT, we propose that employees who possess greater emotional strength are better equipped to manage the negative feelings that arise when comparing themselves to others. This inner capacity helps to buffer the harmful impact of envy—particularly when it takes the form of social undermining that interferes with service delivery. Taken together, these insights may help to refine existing theories of emotional misattribution by showing how personality traits and situational factors jointly determine whether emotional discomfort results in misdirected hostility or becomes a catalyst for growth-oriented behaviors. In this sense, resilience emerges as a protective factor, offering value both to the individual and to the organization by reducing behaviors that damage team dynamics and customer experiences. Interestingly, however, our results diverge from expectations when it comes to constructive behaviors. Resilience did not moderate the pathway between envy and ERS via observational learning. This

outcome, though unexpected, brings an important nuance to existing knowledge. One potential explanation lies in the growing literature on the potential downsides of resilience in organizational contexts. For instance, Williams et al. (2017) suggest that individuals with high resilience may develop overly inflated self-perceptions. This overconfidence could reduce their motivation to learn or grow, making them less receptive to using envy as a prompt for self-improvement. Other research suggests that resilience, while helpful, may not be sufficient on its own to promote learning-oriented behaviors. Rather, it may need to interact with complementary traits such as emotional intelligence (Ong et al., 2006). In our analysis, then, resilience appeared to be effective in dampening destructive responses, yet it failed to foster constructive ones. These results imply that resilience functions more as a shield against threat-based reactions than as a catalyst for challenge-based growth. Observational learning, as a constructive response to envy, may require that the individual reinterpret envy not as a threat but as an opportunity to improve. According to prior findings, such a shift in mindset—where challenge replaces threat—is a precondition for learning behaviors to emerge (Lee & Duffy, 2019). If this reinterpretation is already taking place, then resilience may no longer play a pivotal role, as the individual has already moved beyond the need for emotional buffering.

Practical implications

This study has practical implications that can benefit HR managers. The first challenge is identifying potentially problematic situations involving envy that require attention, as this is an internal emotion that employees may hide or camouflage due to social desirability (Li et al., 2023). However, several strategies can be effective in addressing this issue. First, by observing behaviors and attitudes, an experienced HR manager can detect if an employee exhibits negative comments (e.g., constant derogatory or critical remarks about

colleagues' successes) or excessive competitiveness (e.g., an inability to celebrate colleagues' achievements). Second, interviews or 360-degree feedback can be used to gain a comprehensive view of employee behavior from multiple perspectives, including their levels of envy. For example, HR managers can ask employees how they perceive or value their team members' achievements or request evaluations of colleagues' contributions to identify potential indicators of envy. Implementing anonymous surveys that assess the work environment, and interpersonal relationships can help identify issues related to envy. Additionally, the use of Organizational Network Analysis (ONA) can help detect underlying patterns of exclusion, informal influence, or recurrent interpersonal tension that may be linked to envy. ONA tools allow HR professionals to visualize relational dynamics across the organization, revealing latent conflicts or sources of emotional strain (Foster & Falkowski, 1999).

After identifying envious employees, HR managers must manage or train them accordingly. Our results indicate that two responses to envy in the hospitality context—constructive and destructive—occur simultaneously. Previous studies have shown that individuals who exhibit destructive behavior, such as social undermining, are less appreciated and incur social costs they generally wish to avoid (Lee & Duffy, 2019). It is reasonable to suggest that, if provided with conditions that help reduce their destructive responses, envious employees could better utilize opportunities for observational learning to achieve the level of their envied colleagues constructively, thereby eliminating the social costs associated with hostile behaviors like social undermining. Given that both responses are present, HR managers in hospitality organizations can leverage this finding to favor constructive responses to envy, such as observational learning. But how? Offering personal development and coaching programs can help employees recognize

and manage emotions such as envy. For instance, training employees in emotional intelligence skills can be beneficial in this regard. Additionally, facilitating coaching sessions where envious employees can openly discuss their feelings is important. Another useful approach is to implement peer or reverse mentoring programs that encourage knowledge-sharing and collaboration between employees, transforming envy into a learning opportunity. These mentoring relationships can foster empathy, reduce competition, and build stronger interpersonal bonds. Workshops that reframe envy as a signal for growth can also be useful, helping employees understand how to channel this emotion toward personal and professional development goals. Moreover, the organization should have planned mediation interventions to resolve conflicts and address the underlying issues of envy among team members. To achieve this, HR teams and middle managers need to be prepared for mediation. Finally, promoting an organizational culture that values collaboration, recognition, and mutual support is crucial. None of the aforementioned measures will be entirely effective if the organizational culture promotes extreme competitiveness. For example, recognition programs should celebrate individual achievements while maintaining open and transparent communication about each person's opportunities and paths.

Finally, our results suggest that resilience is a key response when attempting to channel employee envy into positive directions. Different authors have conceptualized resilience as an individual capability that is dynamic and can vary throughout one's life, suggesting that it may be possible to develop one's resilience (Williams et al., 2017). Different training systems have been shown to be effective in increasing employees' level of resilience and work performance. From a practical perspective and in the light of our study findings, hotel HR managers can use some of these training systems to develop

resilient capability in individuals to offset the negative effects of envy on service quality. According to Robertson et al. (2015), the Penn Resilience Program (PRP) developed by the University of Pennsylvania is one option. The PRP focuses on interventions through training sessions that attempt to improve a set of factors related to resilience, such as problem solving, self-efficacy, self-regulation and empathy. Another option is coaching-based training programs in resilience, which aim to facilitate the right conditions for the individual's reflective learning from prior personal experiences. However, improving employee resilience requires a holistic approach that extends beyond the training options previously mentioned. To achieve this, organizations need to consider various ways to support employees in becoming more resilient and effectively facing challenges. For example, fostering a supportive work environment, promoting work-life balance, providing HR departments with timely resources to offer psychological support, and developing employee autonomy are essential steps. In addition, HR teams can introduce structured peer-support networks or "resilience circles" that create safe spaces for employees to share challenges and coping strategies, reinforcing a sense of collective strength. Furthermore, integrating resilience assessments into existing performance or wellness evaluations could help identify employees in need of targeted support, allowing HR departments to tailor interventions accordingly. It may also be valuable to embed micro-learning moments into employees' daily routines—for instance, through brief resilience-building exercises, reflective prompts, or digital resources accessible during breaks or shift transitions.

By combining targeted training with environmental support and ongoing reinforcement, hospitality organizations can equip employees not only to manage envy

constructively but also to enhance their overall emotional wellbeing and service effectiveness.

Limitations and future lines of research

Our findings need to be viewed with awareness of certain limitations, which also serve as suggestions for future lines of research. On the one hand, nonparametric sampling techniques hinder generalization from the results. Although this type of sampling is common for HR research in the hospitality sector due to its nature (Garg & Dhar, 2016; Huertas-Valdivia et al., 2019; Kim et al., 2010; Rescalvo-Martin et al., 2021), future studies could validate the proposed model using samples that ensure the generalization of the findings. Another problem is the self-administered nature of the questionnaires. Our research design developed measures to minimize potential problems of method bias (Podsakoff et al., 2003). Future studies could, however, use sample design that includes different information sources. Finally, although this study has investigated observational learning and social undermining as responses to envy, it does not seek to provide an exclusive record of possible responses, but only part of a broad range of options (Lee & Duffy, 2019). Other responses to envy not analysed in our study, such as active learning from the envied target through advice seeking, could have unexpected effects in work environments with the specific characteristics of hospitality. Future studies could thus evaluate whether other constructive and destructive responses to envy have a similar effect on ERS.

Furthermore, several nuanced aspects of envy warrant further investigation to deepen our understanding of its role in organizational settings. First, although our study focused on explaining the indirect and dual influence of envy on ERS, future research should consider the influence of perceived equity in shaping the experience and outcomes

of envy. Envy toward high-performing colleagues—perceived as having earned their success—may foster learning and motivation. In contrast, envy arising from perceived favoritism or unjustified advantages (e.g., managerial bias) could lead to resentment and disengagement. Exploring these distinctions is crucial, as the perceived legitimacy of others' success could moderate whether envy results in constructive or destructive responses. Future studies could experimentally manipulate scenarios of fair vs. unfair advantage to assess how equity perceptions influence behavioral reactions such as ERS, knowledge sharing, or social withdrawal.

Second, although our study ruled out the effect of age and gender as demographic factors in the proposed model, future research could delve deeper into the demographic dimensions of envy. For example, migrant workers, often navigating additional cultural and social barriers, could experience differently, potentially with stronger emotional consequences or different coping strategies. Investigating these demographic dimensions is essential to designing inclusive HR policies that account for employee diversity. Future studies could adopt a comparative approach, examining how envy dynamics vary across demographic groups within hospitality workplaces.

Finally, although it was not the objective of our work, it is necessary to recognize that the cultural context in which envy occurs may also affect its interpretation and outcomes. Cultural values—such as individualism vs. collectivism, power distance, or uncertainty avoidance—can influence how envy is perceived and whether its expression is socially acceptable. Understanding these cultural variations is particularly important for global service industries like hospitality, where multicultural teams are common. Cross-cultural or international comparative studies could explore how cultural norms

shape envy-related behaviors and their implications for service delivery and team dynamics.

ata availability statement: The data that support the findings of this study are available from the corresponding author upon reasonable request.

References

- Battle, L., & Diab, D. L. (2022). Is envy always bad? An examination of benign and malicious envy in the workplace. *Psychological Reports*, 0(0), 1–21.
<https://doi.org/10.1177/00332941221138476>
- Becker, M. J., Proksch, D., & Ringle, C. (2022). Revisiting gaussian copulas to handle endogenous regressors. *Journal of the Academy of Marketing Science*, 50, 46–66.
<https://doi.org/10.1007/s11747-021-00805-y>
- Bettencourt, L. A., & Brown, S. W. (1997). Contact employees: Relationships among workplace fairness, job satisfaction and prosocial service behaviors. *Journal of Retailing*, 73(1), 39–61. [https://doi.org/10.1016/S0022-4359\(97\)90014-2](https://doi.org/10.1016/S0022-4359(97)90014-2)
- Brown, D. J., Ferris, D. L., Heller, D., & Keeping, L. M. (2007). Antecedents and consequences of the frequency of upward and downward social comparisons at work. *Organizational Behavior and Human Decision Processes*, 102(1), 59–75.
<https://doi.org/10.1016/j.obhdp.2006.10.003>
- Cohen-Charash, Y., & Larson, E. C. (2017). An Emotion Divided: Studying Envy Is Better Than Studying “Benign” and “Malicious” Envy. *Current Directions in Psychological Science*, 26(2), 174–183.
<https://doi.org/10.1177/0963721416683667>
- Cohen-Charash, Y., & Mueller, J. S. (2007). Does perceived unfairness exacerbate or mitigate interpersonal counterproductive work behaviors related to envy? *Journal of Applied Psychology*, 92(3), 666–680. <https://doi.org/10.1037/0021-9010.92.3.666>
- Dai, Y., Zhuang, W., & Huan, T. (2019). Engage or quit? The moderating role of abusive supervision between resilience, intention to leave and work engagement. *Tourism Management*, 70(May 2017), 69–77.
<https://doi.org/10.1016/j.tourman.2018.07.014>
- Duffy, M. K., Scott, K. L., Shaw, J. D., Tepper, B. J., & Aquino, K. (2012). A Social context model of envy and social undermining. *Academy of Management Journal*, 55(3), 643–666. <https://doi.org/10.5465/amj.2009.0804>
- Duffy, M., Lee, K., & Adair, E. (2021). Workplace Envy. *Annual Review of Organizational Psychology and Organizational Behavior*, 8, 19–44.
<https://doi.org/10.1146/annurev-orgpsych-012420-055746>
- Elche, D., Ruiz-Palomino, P., & Linuesa-Langreo, J. (2020). Servant leadership and organizational citizenship behavior: The mediating effect of empathy and service climate. *International Journal of Contemporary Hospitality Management*, 32(6), 2035–2053. <https://doi.org/10.1108/IJCHM-05-2019-0501>
- Feng, W., Yang, M. X., Yu, I. Y., & Tu, R. (2021). When positive reviews on social networking sites backfire: The role of social comparison and malicious envy. *Journal of Hospitality Marketing and Management*, 30(1), 120–138.

<https://doi.org/10.1080/19368623.2020.1775745>

- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 72(2), 117–140 <https://doi.org/10.1177/001872675400700202>
- Foster, F., & Falkowski, G. (1999). Organization network analysis: A tool for building a learning organization. *Knowledge and Process Management*, 6(1), 53–60. [https://doi.org/10.1002/\(sici\)1099-1441\(199903\)](https://doi.org/10.1002/(sici)1099-1441(199903))
- Garg, S., & Dhar, R. (2016). Extra-role customer service: The roles of leader–member exchange (LMX), affective commitment, and psychological empowerment. *International Journal of Hospitality and Tourism Administration*, 17(4), 373–396. <https://doi.org/10.1080/15256480.2016.1226151>
- Ghadi, M. Y. (2018). Empirical examination of theoretical model of workplace envy: evidences from Jordan. *Management Research Review*, 41(12), 1438–1459. <https://doi.org/10.1108/MRR-06-2017-0185>
- Grobelna, A. (2021). Emotional exhaustion and its consequences for hotel service quality: the critical role of workload and supervisor support. *Journal of Hospitality Marketing & Management*, 30(4), 395–418. <https://doi.org/10.1080/19368623.2021.1841704>
- Hair, J. F., Sarstedt, M., Ringle, C. M., & Gudergan, S. P. (2024). *Advanced issues in partial least squares structural equation modeling*. 2nd edition. Sage publications.
- Henseler, J, Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- Henseler, Jörg, Hubona, G., & Ray, P. A. (2016). Using PLS path modeling in new technology research: Updated guidelines. *Industrial Management and Data Systems*, 116(1), 2–20. <https://doi.org/10.1108/IMDS-09-2015-0382>
- Henseler, Jörg, & Schuberth, F. (2020). Using confirmatory composite analysis to assess emergent variables in business research. *Journal of Business Research*, 120(July), 147–156. <https://doi.org/10.1016/j.jbusres.2020.07.026>
- Huertas-Valdivia, I., Braojos, J., & Lloréns-Montes, F. (2019). Counteracting workplace ostracism in hospitality with psychological empowerment. *International Journal of Hospitality Management*, 76(May 2018), 240–251. <https://doi.org/10.1016/j.ijhm.2018.05.013>
- Hult, G. T. M., Hair, J. F., Proksch, D., Sarstedt, M., Pinkwart, A., & Ringle, C. M. (2018). Addressing endogeneity in international marketing applications of Partial Least Squares Structural Equation Modeling. *Journal of International Marketing*, 26(3), 1–21. <https://doi.org/10.1509/jim.17.0151>
- Karatepe, T., Rescalvo-Martin, E., Kim, T. T., Uner, M. M., Ozturen, A., & Karatepe,

- O. M. (2024). Test of a moderated serial mediation model of management commitment to the ecological environment. *International Journal of Hospitality Management*, 120(October 2023), 103785. <https://doi.org/10.1016/j.ijhm.2024.103785>
- Khan, M. H., & Noor, A. (2020). Does employee envy trigger the positive outcomes at workplace? A study of upward social comparison, envy and employee performance. *Journal of Global Business Insights*, 5(2), 169–188. <https://doi.org/10.5038/2640-6489.5.2.1130>
- Kim, Sehoon, Kwon, K., & Wang, J. (2022). Impacts of job control on overtime and stress: cases in the United States and South Korea. *International Journal of Human Resource Management*, 33(7), 1352–1376. <https://doi.org/10.1080/09585192.2020.1757738>
- Kim, Soo, O'Neill, J. W., & Cho, H. M. (2010). When does an employee not help coworkers? The effect of leader-member exchange on employee envy and organizational citizenship behavior. *International Journal of Hospitality Management*, 29(3), 530–537. <https://doi.org/10.1016/j.ijhm.2009.08.003>
- Kim, T. T., Karatepe, O. M., & Chung, U. Y. (2019). Got political skill?: The direct and moderating impact of political skill on stress, tension and outcomes in restaurants. *International Journal of Contemporary Hospitality Management*, 31(3), 1367–1389. <https://doi.org/10.1108/IJCHM-01-2018-0014>
- King, D., Newman, A., & Luthans, F. (2016). Not if, but when we need resilience in the workplace. *Journal of Organizational Behavior*, 37, 782–786. <https://doi.org/10.1002/job.2063>
- Kock, N. (2017). Common method bias: A full collinearity assessment method for PLS-SEM. In H. Latan & R. Noonan (Eds.), *Partial Least Squares Path Modeling*. Springer. https://doi.org/10.1007/978-3-319-64069-3_11
- Langford, G., & Weissenberg, A. (2018). 2018 Travel and hospitality industry outlook. In *Deloitte Centre for Industry Insights*. <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/consumer-business/us-cb-2018-travel-hospitality-industry-outlook.pdf>
- Le, L. H., Hancer, M., Chaulagain, S., & Pham, P. (2023). Reducing hotel employee turnover intention by promoting pride in job and meaning of work: A cross-cultural perspective. *International Journal of Hospitality Management*, 109(November 2022), 103409. <https://doi.org/10.1016/j.ijhm.2022.103409>
- Lee, K., & Duffy, M. K. (2019). A functional model of workplace envy and job performance: When do employees capitalize on envy by learning from envied targets? *Academy of Management Journal*, 62(4), 1085–1110. <https://doi.org/10.5465/amj.2016.1202>
- Li, J. J., Wong, I. K. A., & Kim, W. G. (2016). Effects of psychological contract breach

- on attitudes and performance: The moderating role of competitive climate. *International Journal of Hospitality Management*, 55, 1–10.
<https://doi.org/10.1016/j.ijhm.2016.02.01>
- Li, M., Xu, X., & Kwan, H. K. (2023). The antecedents and consequences of workplace envy: A meta-analytic review. *Asia Pacific Journal of Management*, 40(1), 1–35.
<https://doi.org/10.1007/s10490-021-09772-y>
- Lim, W. M., Aggarwal, A., Singh, V., & Gopal, R. (2024). Leader–Member Exchange and Service-Oriented Organizational Citizenship Behavior: A Mediation-Moderation Model of Employee Envy and Psychological Empowerment Among Hotel Frontline Employees. *International Journal of Hospitality and Tourism Administration*, 1–30. <https://doi.org/10.1080/15256480.2024.2364326>
- Malik, P., & Lenka, U. (2019). Exploring interventions to curb workplace deviance: lessons from Air India. *Tourism Review*, 74(3), 563–585.
<https://doi.org/10.1108/TR-04-2018-0048>
- Min, H., Park, J., & Jeong, H. (2016). Common method bias in hospitality research: A critical review of literature and an empirical study. *International Journal of Hospitality Management*, 56, 126–135. <https://doi.org/10.1016/j.ijhm.2016.04.010>
- Murtza, M. H., & Rasheed, M. I. (2023). The dark side of competitive psychological climate: exploring the role of workplace envy. *Journal of Hospitality and Tourism Insights*, 6(3), 1400–1418. <https://doi.org/10.1108/JHTI-03-2022-0097>
- Ong, A. D., Bergeman, C. S., Bisconti, T. L., & Wallace, K. A. (2006). Psychological resilience, positive emotions, and successful adaptation to stress in later life. *Journal of Personality and Social Psychology*, 91(4), 730–749.
<https://doi.org/10.1037/0022-3514.91.4.730>
- Peng, H., Bell, C., & Li, Y. (2020). How and when intragroup relationship conflict leads to knowledge hiding: the roles of envy and trait competitiveness. *International Journal of Conflict Management*, 32(3), 383–406. <https://doi.org/10.1108/IJCM-03-2020-0041>
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903.
<https://doi.org/10.1037/0021-9010.88.5.879>
- Raineri, A., & Valenzuela-ibarra, S. (2021). The role of inter-team relational coordination in the high-performance work systems – team performance linkage. *The International Journal of Human Resource Management*, 33(18), 3662–3702.
<https://doi.org/10.1080/09585192.2021.1928729>
- Rescalvo-Martin, E., Gutierrez-Gutierrez, L., & Llorens-Montes, F. J. (2021). The effect of paradoxical leadership on extra-role service in the hospitality industry. *International Journal of Contemporary Hospitality Management*, 33(10), 3661–

3684. <https://doi.org/10.1108/IJCHM-02-2021-0198>
- Rescalvo-Martin, E., Castillo, A., Moreno-Marcial, A. P., Albacete-Saez, C. A., & Llorens-Montes, F. J. (2022). Effects of empowering leadership under boundary conditions in the hospitality industry. *International Journal of Hospitality Management*, 105(May), 103269. <https://doi.org/10.1016/j.ijhm.2022.103269>
- Ringle, C. M., Sarstedt, M., Mitchell, R., & Siegfried, P. (2018). Partial least squares structural equation modeling in HRM research. *The International Journal of Human Resource Management*, 5192, 1–27. <https://doi.org/10.1080/09585192.2017.1416655>
- Robertson, I. T., Cooper, C. L., Sarkar, M., & Curran, T. (2015). Resilience training in the workplace from 2003 to 2014: A systematic review. *Journal of Occupational and Organizational Psychology*, 88(3), 533–562. <https://doi.org/10.1111/joop.12120>
- Russell, J. A. (2003). Core affect and the psychological construction of emotion. *Psychological review*, 110(1), 145. <https://doi.org/10.1037/0033-295X.110.1.145>
- Sarstedt, M., Ringle, C. M., Cheah, J. H., Ting, H., Moisescu, O. I., & Radomir, L. (2020). Structural model robustness checks in PLS-SEM. *Tourism Economics*, 26(4), 531–554. <https://doi.org/10.1177/1354816618823921>
- 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. <https://doi.org/10.1080/10705500802222972>
- Smith, R. H., Parrott, W. G., Diener, E. F., Hoyle, R. H., & Kim, S. H. (1999). Dispositional envy. *Personality and Social Psychology Bulletin*, 25(8), 1007–1020. <https://doi.org/10.1177/01461672992511008>
- Thompson, G., Glasø, L., & Martinsen, Ø. (2016). Antecedents and Consequences of Envy. *Journal of Social Psychology*, 156(2), 139–153. <https://doi.org/10.1080/00224545.2015.1047439>
- Treadway, D. C., Yang, J., Bentley, J. R., & Williams, L. V. (2019). The impact of follower narcissism and LMX perceptions on feeling envied and job performance. *The International Journal of Human Resource Management*, 30(7), 1181–1202. <https://doi.org/10.1080/09585192.2017.1288151>
- Veiga, J. F., Baldridge, D. C., & Markóczy, L. (2014). Toward greater understanding of the pernicious effects of workplace envy. *The International Journal of Human Resource Management*, 25(17), 2364–2381. <https://doi.org/10.1080/09585192.2013.877057>
- Waugh, C. E., Wager, T. D., Fredrickson, B. L., Noll, D. C., & Taylor, S. F. (2008). The neural correlates of trait resilience when anticipating and recovering from threat. *Social Cognitive and Affective Neuroscience*, 3(4), 322–332.

<https://doi.org/10.1093/scan/nsn024>

- Williams, T. A., Gruber, D. A., Sutcliffe, K. M., Shepherd, D. A., & Zhao, E. Y. (2017). Organizational response to adversity: Fusing crisis management and resilience research streams. *Academy of Management Annals*, 11(2), 733–769. <https://doi.org/10.5465/annals.2015.0134>
- WTO. (2019). *World Tourism Barometer*. 17(4). <https://doi.org/10.18111/wtobarometeresp>
- Wu, W., Ni, D., Wu, S., Lu, L., Zhang, X., & Hao, S. (2021). Envy climate and group performance in full-service hotels: the roles of intragroup relationship conflict and competitive climate. *International Journal of Contemporary Hospitality Management*, 33(10), 3494–3513. <https://doi.org/10.1108/IJCHM-09-2020-1042>
- Ye, Y., Lyu, Y., Kwan, H. K., Chen, X., & Cheng, X. M. (2021). The antecedents and consequences of being envied by coworkers: An investigation from the victim perspective. *International Journal of Hospitality Management*, 94(December 2020), 102751. <https://doi.org/10.1016/j.ijhm.2020.102751>
- Youn, H., Kim, J. H., & Song, H. (2017). The leading causes and consequences of citizenship pressure in the hotel industry. *International Journal of Contemporary Hospitality Management*, 29(6), 1541–1559. <https://doi.org/10.1108/IJCHM-09-2015-0472>
- Yuan, C. Y., Chen, C. Y., Fei, Y. M., & Yan, C. H. (2021). Workplace ostracism and prosocial service behaviours: the role of work engagement. *Current Issues in Tourism*, 0(0), 1–14. <https://doi.org/10.1080/13683500.2021.1974356>
- Yuniati, R., & Sitinjak, C. (2022). Upward comparison at the corkplace: A Review. *East Asian Journal of Multidisciplinary Research*, 1(7), 1377–1394. <https://doi.org/10.55927/eajmr.v1i7.922>
- Zhang, W. G., Ding, Y., & Xu, F. (2024). How does proactive personality affect employee creativity and ostracism? The mediating role of envy. *Heliyon*, 10(4), e25457. <https://doi.org/10.1016/j.heliyon.2024.e25457>
- Zhao, X. (Roy), & Ghiselli, R. (2016). Why do you feel stressed in a “smile factory”? Hospitality job characteristics influence work–family conflict and job stress. *International Journal of Contemporary Hospitality Management*, 28(2), 305–326. <https://doi.org/10.1108/IJCHM-08-2014-03>