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Does Employee Innovation Matter in the UK Hotel Industry? The Mediating Role of Psychological Safety

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Abstract

Purpose – In the current turbulent and highly competitive environment, hotels' management are under pressure to be innovative and improve their products and services continuously to meet and exceed guests' expectations. Therefore, the primary objective of this study is to develop and test a framework of the factors that can promote employee psychological safety and help drive employee innovation in hotels in the UK.

Design/methodology/Approach - A survey questionnaire was constructed and distributed to employees in four- and five-star hotels in the UK. Non-probability convenience sampling was performed in this study. Structural equation modelling (SEM) was used to test the research's model and hypotheses.

Findings - The findings revealed a positive and significant association between psychological safety and employee innovation. Furthermore, psychological safety was found to fully mediates the influence of leader inclusiveness, respectful relationships at work, and autonomy on employee innovation. Also, leader inclusiveness and role clarity were discovered to be associated with autonomy, whereas proactive personality was found to be related to employee innovation directly. The outcomes also showed that proactive personality fully mediates the impact of autonomy and respectful relationships on employee innovation.

Originality/value - This study presents an original chain-mediation model that illustrates the mechanism of how employee innovative behavior can be encouraged by focusing on the mediation of psychological safety. To the best of the authors' knowledge, this study is among the first attempts to shed light on the role of psychological safety in promoting employee innovation in the hotel sector.

Keywords - Innovation; Psychological Safety; Leader Inclusiveness; Respectful Relationships and Autonomy; Role Clarity and Proactive Personality; Hotels

1. Introduction

Coronavirus, which is known as COVID-19, was declared a global pandemic by The World Health Organization (WTO) in March 2020. Within a month, most countries around the world restricted human movement by declaring a national lockdown and/or other strategies to control the spread of the virus such as closing borders. There is a wide perception that COVID-19 is considered one of the worst catastrophes in history. The hospitality sector was severely hit by the pandemic as hotels and restaurants were forced to close by authorities and re-open after a while under new health restrictions. The pandemic has forced the hotel sector to work in a 'survival mode' as they encountered a sharp decline in revenues and an increase in refunds for canceled reservations, and the rises in sanitizing costs (Yacoub and ElHajjar, 2021). For example, it was predicted that by 2025 the UK tourism industry would be worth over £257 billion, however, the 2020 COVID-19 pandemic had other ideas, putting worldwide travel to a stop. In 2020 there was a decline of 73% in visitors to the UK and 78% in tourist spending (Condorferries, 2023). These challenges put hotels under pressure to find innovative solutions that can speed their recovery in the post-pandemic era. Chan *et al.,* (2021) urged hotels to be innovative and establish innovative recovery strategies to enhance guests' experience and the overall performance of hotels after the outbreak of COVID-19. Various studies have focused on describing the influence of COVID-19 on the hotel sector (e.g., Gursoy and Chi, 2020; Jiang and Wen, 2020); however, few researchers have tried to provide practical solutions on how hotels can overcome COVID-19 repercussions. As such, there is a need for more studies that can help hotels enhance their innovativeness to survive, compete and succeed.

This period of time needs the collaboration of all the hotel members, particularly employees. One of the great sources of innovative ideas in the hotel industry is hotel employees (Alzyoud et al., 2018). Employees' innovative ideas were found to enhance hotels' service quality and guest satisfaction (Kattara and El-Said, 2013; Pivcevic and Petric, 2011; Wong and Ladkin, 2008). However, employees' engagement in innovative actions such as suggesting novel ideas or trying new work methods may be considered by employees as risky endeavors (Yuan and Woodman, 2010; Kark and Carmeli, 2009). The fear of embarrassment when suggesting unfeasible ideas or being seen negatively by others can make employees reluctant to innovate. Thus, it is of importance to understand the elements that can make an employee feel safe, also called in the literature psychological safety, and enthused to demonstrate innovative behaviors.

Although the significance of psychological safety and employee innovation have been confirmed in organizations, reviewing the literature on employee innovation in the hotel industry revealed many gaps that this thesis can fill. First, the importance of innovation and employee innovation for the hotel industry have been confirmed in previous research (e.g. Al-Ababneh 2015; Chen 2011; Ko, 2015; Ottenbacher 2007). However, proposing novel ideas or trying new work methods can involve hesitation and insecurity (Kark and Carmeli, 2009); hence, it is vital to understand what makes employees feel safe to demonstrate innovative behaviours. Second, a handful of studies have been conducted to examine what influences employee psychological safety and engagement in innovative behaviour. According to Rabiul et al. (2023), many studied have focused on the between human resource (HR) practices and employees' psychological (e.g., Memon et al., 2020; Alfes et al., 2021). Some researchers have focused on the quality of the relationships between employees at work such as the influence of employees' care for each other (e.g. Vinarski-Peretz and Carmeli, 2011), whereas others focused on the impact of leadership styles such as transformational leadership (e.g. Carmeli et al., 2014). Rabiul et al. (2023) evaluated the mediating effects of employees' psychological states on the relationship between human resources (HR) practices and employee engagement. Carmeli et al. (2010) studied how leader inclusiveness can influence employee psychological safety to be involved in creative activities at work, whereas Nembhard and Edmondson (2006) shed light on how leader inclusiveness can make employees feel psychologically safe to engage in initiatives to improve service. However, there are various calls for hotels to be innovative to recover from the COVID-19 pandemic (e.g., Chan and Gao, 2021; Yacoub and ElHajjar, 2021), and there are calls for further examining the currently available antecedents and exploring new factors that can affect psychological safety and employee innovation (Frazier et al., 2016). In addition, the vast majority of past studies on psychological safety were undertaken in non-hospitality sectors (e.g., healthcare, technology). Consequently, there is a need to evaluate the role of psychological safety and employee innovation in the Hotel industry.

Finally, as noted by previous research such as Orfila-Sintes and Mattsson (2009), one of the determinants of innovative behaviour in the hotel sector is being a part of a hotel chain; thus, four- and five- star hotels were targeted in the belief that the majority of these hotels are parts of hotel chains. Moreover, four- and five-star hotels that are parts of hotel chains have been chosen as the focus for this study as these types of hotels are more likely to be interested in innovative activities and investment in their human resources than other categories of hotel.

Therefore, the primary objective of this study is to develop and test a framework of the factors that can promote employee psychological safety and help drive employee innovation in four- and five-star hotels in the UK. To the best of the authors' knowledge, this study is among the first attempts to shed light on the role of psychological safety in promoting employee innovation in the hotel sector. This study is expected to contribute to knowledge by enhancing the understanding of what promotes employee innovation in hotels and by explaining the mechanism of what makes employees feel safe and non-threatened to innovate. The study also provides practical recommendations for hoteliers on how to establish a work environment that is supportive for innovative behaviors. This study is of importance as it could be the first to integrate several antecedences to psychological safety and employee innovation.

2. Theoretical Background and Hypotheses

2.1 Psychological safety and employee innovation

The concept of psychological safety describes the perception of employees in their workplace that they feel secure and non-threatened to express their opinions, try new work procedures or admit failure (Khattak et al., 2022; Edmondson and Lei, 2014). Psychological safety occurs when employees feel that they can express themselves freely without the fear of undesirable repercussions to self-image, status, or career (Kahn, 1990). Several prior studies have focused on the importance of psychological safety in enhancing employee engagement (e.g. Edmondson and Lei, 2014; Frazier et al., 2016), sharing knowledge with colleagues (e.g. Carmeli and Gittell, 2009), and improving the overall performance (Hirak et al., 2012). On top of that, employees' perception of psychological safety was proposed to enhance employee innovation (e.g. Frazier et al., 2016; Kark and Carmeli, 2009; Vinarski-Peretz and Carmeli, 2011).

Employee innovation refers to an employee's endeavors to generate, suggest and/or implement novel ideas that can positively change the workplace such as enhancing performance or solving a problem (Scott and Bruce, 1994; Yuan and Woodman, 2010). Proposing inventive ideas, trying different work procedures, or looking for different techniques or technologies in the work are all forms of innovative behaviors in this study. These innovative activities, as explained earlier, can involve interpersonal risk-taking. As such, psychological safety is suggested to alleviate these risks and make employees feel comfortable engaging in innovation. As said by Frazier et al. (2016), psychological safety can motivate employees to focus more on developing new ideas and improving performance than worrying about self-protection. Indeed, psychological safety is proposed to work like a safety net that mitigates an employee's fear of undesirable repercussions of involving in innovative actions (Carmeli *et al.,*

2010). Cai et al. (2023) found that supervisor developmental feedback has a positive effect on employee innovative behavior through psychological safety, and this mediating effect is weakened by protective face orientation (fear of losing face). As such, this study focuses on the important role of psychological safety in enhancing employee innovation. Therefore, we hypothesized that:

H1: Psychological safety will positively influence employee innovation in the hotel industry.

Several elements were identified from past studies to influence employees' perception of psychological safety and enhance employee innovation. These factors include the behaviors of leaders such as leader inclusiveness (e.g., Carmeli *et al.,* 2010; Nembard and Edmondson, 2006), respectful relationships at work (e.g., Carmeli and Gittell, 2009), autonomy (e.g., Frazier *et al.,* 2016), role clarity (e.g., Frazier *et al.,* 2016; Ly *et al.,* 2018) and proactive personality (e.g., Frazier *et al.,* 2016; Kim, 2019). Therefore, the following sections further discuss the elements that can impact employee psychological safety and employee innovation in hotels.

2.2 Leader inclusiveness, psychological safety and employee innovation

Leaders' behaviors in the working environment play an essential role in promoting employees' perception of psychological safety and motivating them to engage in innovative activities (e.g. Carmeli et al., 2010; Carmeli et al., 2014; Chen et al., 2020; Frazier et al., 2016; Nembhard and Edmondson, 2006; Wang et al., 2018). According to Chen et al. (2020), supportive leader behaviors nurtures an employee feeling of psychological safety, which motivate them to take the risk and engage in innovative behaviors in their workplace. In her theoretical paper, Edmondson (2004) suggested three behaviors that allow leaders to enhance followers' feeling of psychological safety at their workplace: being open, available and accessible. However, these behaviors were suggested theoretically, thus, there was a need for empirical studies to examine these behaviors.

More recently, Nembhard and Edmondson (2006) developed the construct of leader inclusiveness to describe leaders who are open and accessible to employees, encourage and appreciate their contributions, and give them supportive feedback. Open and accessible leaders can make employees feel that their opinions matter and they are welcome to approach the leader and provide ideas. Furthermore, asking employees to speak up and provide constructive feedback can send signals in the workplace that innovative ideas are required and that there are no negative consequences for conducting such behaviors. In the healthcare sector, Nembhard and Edmondson (2006) discovered that inclusive leadership improved employees' perception of psychological safety, which encouraged them to engage in work improvement initiatives.

Similarly, Carmeli et al. (2010) examined the influence of leader inclusiveness in different technological organizations and found that leader inclusiveness promotes psychological safety and employee involvement in innovative behaviors at work. Khattak et al. (2022) found that inclusive leadership significantly impacts employees' pro-social rule-breaking among hospitality employees. Khattak et al. (2022) also found that leadership identification and psychological safety partially mediate the relationship between inclusive leadership and pro-social rule-breaking. Wang et al., (2021) found that inclusive leadership positively affects employee innovative behavior; the more inclusive leadership behavior shown by the leader, the more effective it is in stimulating employee innovative behavior. Al-Khatib et al. (2022) found that an innovative organizational culture fosters innovative performance among all employees, regardless of their administrative roles. Therefore, we propose that:

H2a: Leader inclusiveness will positively influence psychological safety in the hotel industry.

H2b: Psychological safety will mediate the influence of leader inclusiveness on employee innovation in the hotel industry.

2.3 Respectful relationships amongst hotels' members, psychological safety and employee innovation

Good relationships between individuals at the workplace can hugely affect how they feel and act (Carmeli and Gittell, 2009). Nickson (2013) stated that positive relations at work can decrease anxiety and stimulus knowledge sharing in the hospitality industry. Respect between people at the workplace were suggested by various studies as an essential factor to encourage employees' feeling of psychological safety (e.g. Carmeli and Gittell, 2009; Frazier et al., 2016) and employee innovation (Vinarski-Peretz and Carmeli, 2011; Yuan and Woodman, 2010). This kind of relationship can establish a friendly and supportive work climate that alleviates individuals' concern about speaking their minds and motivate them to participate actively in their jobs (Kahn, 2007). Conversely, a lack of respect in the workplace was found to be associated with low innovation and satisfaction amongst employees (Janssen and Nico, 2004). Lack of respect might increase employees' concern about the repercussions of their behaviors such as the fear of being criticized by others, and that can make the workplace stressful, which ultimately can hinder employees' endeavors to suggest or develop innovative solutions. Accordingly, these hypotheses are posited:

H3a: Respectful relationships between employees at work will positively influence psychological safety in the hotel industry.

H3b: Psychological safety will mediate the influence of respectful relationships on employee innovation in the hotel industry.

2.4 Role clarity, psychological safety, and employee innovation

Role clarity refers to providing employees with clear explanations of what their tasks involve and what and how they are expected to perform in their jobs (Frazier et al., 2016). Demonstrating to employees their duties and responsibilities and anything connected to their tasks can lessen the uncertainty, which can encourage them to make decisions, and that supports their feelings of psychological safety (Frazier et al., 2016). Letting employees understand clearly that they are required to be innovative can make them feel psychologically safe to participate in innovative activities such as searching for, suggesting or developing innovative solutions because they will believe that innovation is expected and valued by managers and co-workers, which means feeling safe to innovate (Yuan and Woodman, 2010). In contrast, when employees do not clearly understand their roles, their satisfaction will be negatively influenced (Choo, 2017) as well as their motivation (Nansubuga and Munene, 2013), which, ultimately, can negatively impact employee innovation. In addition, a lack of clear roles can promote stress and conflict in the workplace, and that hurts the performance of employees (Nickson, 2013). In their qualitative study, Alzyoud et al. (2018) suggested that role clarity can increase employees' confidence, as they comprehend their roles and expectations, which can stimulate their psychological safety and enhance their innovative behavior; however, the lack of clear role might increase uncertainty and lead employees to quit the job. Taking the above into consideration, we posited that:

H4a: Role clarity will positively influence psychological safety in the hotel industry.

H4b: Psychological safety will mediate the influence of role clarity on employee innovation in the hotel industry.

2.5 Proactive personality, psychological safety and employee innovation

Proactive personality is one of the personality traits that has attracted the researchers' interest, particularly its influence on employee innovation (e.g. Chen, 2011; Hammond et al., 2011; Yesil and Sozbilir, 2013). The construct proactive personality describes the person who constantly looks for improvements at work through initiatives to change the present state for the better (Crant, 2000). Proactive individuals are frequently seen as self-motivated and goal-oriented (Parker et al., 2006); they also try to make positive changes in their working environments (Thomas et al., 2010), usually by encouraging innovative behaviors (Fuller and Marler, 2009; Seibert et al., 2001; Kim, 2019).

Although proactive and innovative behaviors such as generating and suggesting novel ideas and trying to change the status quo can include insecurity and risk (Carmeli and Gittell,

2009; Vinarski-Peretz and Carmeli, 2011), proactive people are suggested to have the capability to engage in innovative activities more than others (Åmo, 2005; Seibert et al., 2001) as they often see the situation as being psychologically safe, even if it is not (Chan, 2006; Frazier et al., 2016). Bai et al. (2022) found that proactive personality has a significant impact on innovative work behavior.Bai et al. (2022) also found that work engagement positively mediates the relationship between proactive personality and innovative work behavior. Fan et al. (2022) found that proactive personality positively affects employees' innovative behavior. Mubarak et al. (2021) found that a proactive personality had a positive influence on innovative work behavior directly and indirectly through work engagement, and transformational leadership positively moderates the relationship between a proactive personality and work engagement in such a way that with high transformational leadership behavior relationship will be strengthened. In hotels, employees interact directly with customers from different backgrounds; thus, hotels' employees need to be proactive to respond to customers' requests and satisfyingly serve them. Thus, we hypothesized that:

H5a: Proactive personality will positively influence psychological safety in the hotel industry.

H5b: Psychological safety will mediate the influence of proactive personality on employee innovation in the hotel industry.

2.6 Autonomy, psychological safety and employee innovation

Autonomy is defined as granting staff the freedom and independence to decide how to perform their duties (e.g. Frazier et al., 2016). Giving employees autonomy allows them to try new work methods and make decisions without the fear of negative repercussions such as being criticized by managers, which improves employees' feelings of psychological safety and promotes their creativity (Chandrasekaran and Mishra, 2012). According to Axtell et al. (2000), giving employees flexibility and autonomy can create work environments that are supportive of free-thinking, knowledge-sharing, and the freedom to discover new work techniques, which are the pillars of innovative behavior. In hotels, employees are expected to serve guests according to standards and guidelines, which might denote less freedom. Nevertheless, autonomy is considered as one of the promoters of innovative behavior amongst the employees in the hotel sector (Ko, 2015; Wong and Pang, 2003). Viseu et al. (2023) found that positive psychological capital partially mediated the relationship between organizational justice and work engagement, and that work engagement partially mediated the association between psychosocial safety climate and organizational justice, and affective commitment. As per Huu et al. (2023), the review's outcomes suggest that employees with greater digital autonomy are more likely to engage in innovative work, leading to improved job performance and

empowerment. As explained in the previous section, hotels' employees deal with different people from various backgrounds; hence, autonomy is needed in hotels to enable employees to respond to guests' requests in a way that satisfies their desires. Consequently, an employee who is given autonomy is likely to feel psychologically safe to engage in innovative acts. Taken together, we propose that:

H6a: Autonomy will positively influence psychological safety in the hotel industry.

H6b: Psychological safety will mediate the influence of autonomy on employee innovation in the hotel industry.

3. Methodology

3.1 Sampling and data collection

The target population for this study is employees of four- and five-star hotels in UK. The questionnaire has been reviewed and assessed by three academic members from the department of Operations, Technology, Events and Hospitality Management in the MMU. Before the final questionnaire was sent out, a pilot study was conducted by giving the questionnaire to 30 pilot participants who were representative of the respondents in the main study to assess the validity and reliability of the research instrument. Based on the respondents' feedback, only minor modifications were made to the questionnaire. Non-probability sampling was performed in this study due to the population size being unknown which deemed the use of the randomisation method to be improbable (Schmidt and Hollensen 2006).

In order to have reliable results from the SEM, sufficient sample size is required. According to Anderson and Gerbing (1988) and Hair et al. (2014), the minimum acceptable sample size for SEM is 100; however, Bentler and Yuan (1999), and Tabachnick and Fidell (2013) suggested that the required sample size for SEM could be as small as 60 samples, but Wolf et al. (2013) argued it could be as low as 30. Nevertheless, following Bentler and Chou's (1987) and Gorsuch's (1983) rule of thumb, the ratio of five cases for each measurement's item is sufficient for SEM, particularly when the constructs have several measures. Additionally, according to Cohen's (1992) recommendations, 102 samples are needed for a study with seven variables in order to use multiple regression. Consequently, as the sample size of this study is 105, it can be concluded that this number is sufficient to go forward and perform the SEM. Finally, two methods of data collection were used: online-survey and paper-based questionnaires to enhance the response rate. An online self-administrated survey was designed using Bristol Online Survey (BOS) software to collect the data from four- and five-star hotels in different geographical locations across Britain.

3.2 Questionnaire and measurements

The survey items were rated using a five-point Likert scale (1 = strongly disagree to 5 = strongly agree), a method that has been utilized in several studies (e.g., Al-Tabakhi et al., 2024; Abu-Hasheesh et al., 2024; Madi et al.,2024; Rabah et al., 2024; Yaseen et al., 2023; Dandis et al., 2023, 2022). Employee innovation was assessed with Scott and Bruce's (1994) six-item scale, validated in prior hotel industry research (Dhar, 2016; Hu et al., 2009; Yesil and Sozbilir, 2013). Psychological safety was gauged using Edmondson's (1999) seven-item scale, widely accepted for this purpose (Edmondson and Lei, 2014). Leader inclusiveness drew from twelve items in Nembhard and Edmondson's (2006) and Carmeli et al.'s (2010) work. Respectful relationships at work were measured with three questions from Carmeli and Gittell (2009). Role clarity was assessed by averaging three items adapted from Rizzo et al. (1970). Autonomy was evaluated through a two-item scale designed for the hospitality sector by Slåtten and Mehmetoglu (2011). Proactive personality was captured using a four-item scale developed by Bateman and Crant (1993). Control variables, including age, gender, work experience, hotel category, work contract, and current position, were considered based on prior research (Carmeli et al., 2010; Carmeli et al., 2014; Nembhard and Edmondson, 2006). Refer to Table 3 for detailed measurements.

4.Results
4.1 Demographic Characteristics

Table 1 illustrates the demographic characteristics of the participants. The participant demographics can be summarized as follows: Females accounted for 55.2% of the sample, while males constituted 44.8%. Age distribution revealed that 71.4% of participants were under 34 years old, 28.6% fell within the 35-44 age group, and 9.5% were over 45 years old. In terms of work departments, 50% were in operations, 36% held managerial positions, and 10.5% worked in other areas. Regarding work contracts, the majority were full-time employees at 70.5%, with 19% in part-time roles and 10.5% working on a casual basis. Work experience showed that 69.5% had less than three years in the hotel industry, 26 participants had six to twelve years of experience, and 27 had over twelve years. Hotel category distribution was 75% in four-star hotels and 25% in five-star hotels. Chain affiliation indicated that 53.3% were part of international chains, 27.6% were associated with national chains, and 19% operated independently.

Table 1: Descriptive Characteristics of the Participants.

	Profile category	Number of participants	Percentage
Gender	Male	47	44.8%
	Female	58	55.2%
Age	24 and below	34	32.4%
	25-34	41	39.1%
	35-44	20	19.0%
	45 and over	10	9.5%
Position	Operations	53	50.5%
	Supervisory	14	13.3%
	Low-Management	23	21.9%
	High-Management	15	14.3%
Current department	Food and Beverage	37	35.2%
	Rooms	23	21.9%
	Human resources	15	14.3%
	Finance / Accounting	7	6.7%
	Sales and Marketing	12	11.4%
	Other	11	10.5%
Type of work contract	Full-time	74	70.5%
	Part-time	20	19%
	Casual	11	10.5%
Length of work experience in the hotel industry	Less than 1 year	16	15.2%
	1 - 5 years	36	34.3%
	6 – 12 years	26	24.8%
	More than 12	27	25.7%
Length of work experience in the current hotel	Less than 1 year	33	31.4%
	1 - 3 years	40	38.1%
	4 – 7 years	16	15.2%
	More than 7 years	16	15.2%
Hotel category	Four- star	79	75.2%
	Five- star	26	24.8%
Hotel type	National chain	29	27.6%
	International chain	56	53.3%
	Independent	20	19%

Source: Authors' own work

4.2 Measurement Model and Reliability Tests

Skewness and kurtosis were conducted to meet the criteria of multivariate normality. "The absolute value of skewness greater than 3.0 or the absolute value of kurtosis greater than 8.0 may indicate an abnormal distribution. Therefore, it was accepted that the value of skewness and kurtosis should not be greater than 3.0 and 8.0" (Chen 2012). This is supported by Dandis and Wright (2020). As shown in Table 2, the skewness and kurtosis values were within satisfactory levels, demonstrating the multivariate normality. All the Cronbach's alpha values for the scales are higher than 0.7, as illustrated in Table 2, which fulfilled the reliability requirements.

Table 2: Skewness and kurtosis values of the variables

No.	Statement	Skewness	Kurtosis	Cronbach's Alpha
	Employee innovation (Scott and Bruce,1994)			0.875
1.	Overall, I consider myself an innovative member of my team.	-.774	.178	
2.	I promote and champion ideas to others.	-.837	.652	
3.	I generate creative ideas at work.	-.962	1.558	
4.	At work, I sometimes seek out new technologies, processes, techniques, and/or product ideas.	-1.009	1.240	
5.	I develop adequate plans and schedules for the implementation of new ideas.	-.740	-.139	
6.	I investigate and secure funds needed to implement new ideas.	-.040	-1.147	
	Psychological safety (Edmondson, 1999)			0.782
7.	It is easy for me to ask other members of this hotel for help.	-1.190	1.548	
8.	Working with members of this hotel, my unique skills and talents are valued and utilised vitality.	-1.222	2.360	
9.	I am able to bring up problems and tough issues in this hotel.	-.977	.353	
10.	It is safe to suggest new ideas or try new work methods in this hotel.	-.686	-.158	
11.	No one in this hotel would deliberately act in a way that undermines my efforts.	-.773	.102	
12.	People in this hotel sometimes reject others for being different.	-.662	-.615	
13.	If you make a mistake in this hotel, it is often held against you.	-.709	-.014	
	Leader Inclusiveness (Nembhard and Edmondson, 2006)			0.946
14.	My leader/supervisor is available for consultation on problems.	-1.054	1.251	
15.	My leader/supervisor is ready to listen to my requests.	-.840	1.168	
16.	My leader/supervisor is accessible for discussing emerging problems.	-.774	.839	
17.	My leader/supervisor is available for professional questions I would like to consult with him / her.	-.946	.942	
18.	My leader/supervisor is open to discuss the desired goals and new ways to achieve them.	-.858	.845	
19.	My leader/supervisor encourages me to access him / her on emerging issues.	-1.538	3.117	
20.	My leader/supervisor encourages me to take initiative.	-1.236	1.974	
21.	My leader/supervisor is attentive to new opportunities to improve work processes.	-.823	.539	
22.	My leader/supervisor in this department asks for the input of all staff.	-1.027	.823	
23.	My leader/supervisor is open to hearing new ideas.	-1.010	.932	
24.	My leader/supervisor is someone who is readily available.	-.941	.367	
25.	Leaders or supervisors in this hotel do not value the opinion of others equally.	-.874	.232	

	Respectful relationships (Carmeli and Gittell, 2009)							0.888	
26.	There is a great deal of respect between one another at work.	-.909	1.328						
27.	When someone expresses his/her opinion, we respect it.	-.814	.614						
28.	Mutual respect is at the basis of our working relationships in this organisation.	-.773	.832						
	Role clarity (Rizzo et al., 1970)							0.882	
29.	I know what my responsibilities are.	-1.148	1.735						
30.	I know exactly what is expected of me in my job.	-.840	1.040						
31.	I feel certain about the level of authority I have.	-.722	.127						
	Autonomy (Slåtten and Mehmetoglu, 2011)							0.724	
32.	I get encouraged to solve different tasks single-handedly	-.891	1.166						
33.	I have a great deal of freedom for how I can go about doing my job	-.817	.168						
	Proactive personality (Bateman and Crant, 1993)							0.760	
34.	I get encouraged to solve different tasks single-handedly	-.891	1.166						
35.	I have a great deal of freedom for how I can go about doing my job.	-.817	.168						

Source: Authors' own work

4.3 Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) was crucial for establishing construct reliability and validity before advancing to the structural model. Validity and reliability were confirmed using Average Variance Extracted (AVE) and Composite Reliability (CR), adhering to Hair et al.'s (2014) guidelines (CR > 0.7 for reliability, AVE > 0.5 for convergent validity). Results, presented in Table 2, affirmed the variables' validity and reliability as AVE and CR exceeded the thresholds. The CFA validated the seven-factor model with acceptable fit indices ($\chi2/df$ = 1.718, CFI = 0.909, IFI = 0.912, TLI = 0.882, SRMR = 0.078) and significant item loadings, ensuring construct validity (see Table 3).

Table 3: Validity and Reliability of the Constructs

	CR	AVE	1	2	3	4	5	6	7
1. Employee Innovation	.816	.599	**.774**						
2. Leader Inclusiveness	.886	.722	.356	**.850**					
3. Respectful Relationships	.888	.727	.485	.424	**.852**				
4. Role Clarity	.900	.753	.335	.462	.357	**.867**			
5. Autonomy	.735	.581	.496	.515	.152	.623	**.762**		
6. Being Proactive	.780	.543	.627	.339	.462	.440	.498	**.737**	
7. Psychological Safety	.753	.506	.689	.695	.493	.476	.635	.369	**.711**

The figures in bold on the diagonals represent the squared root of AVE
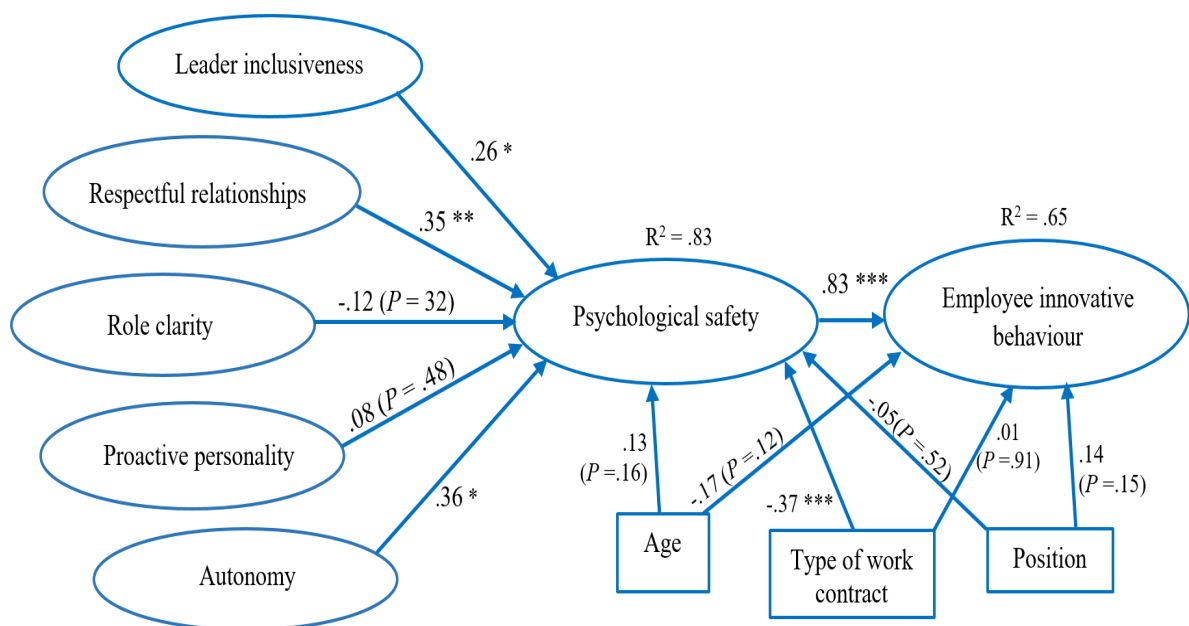**Source: Authors' own work**

However, multicollinearity sometimes cannot be detected from the correlation matrix; therefore, the Variance Inflation Factor (VIF) was used. According to Pallant (2016), any VIF value over 10 denotes the existence of multicollinearity. The results shows that all the VIF values are less than 2, which means that multicollinearity is not a concern here.

5. Hypotheses testing

The hypothesized model was tested using Amos 25 where paths were drawn from the exogenous variables to the mediator (psychological safety), and a path from the mediator to the endogenous variable (employee innovation). Furthermore, bivariate correlations were conducted to estimate the relationships between the demographic variables and the endogenous variables; it has been found that three demographic variables were related significantly to psychological safety and employee innovation: type of work contract, age and position. As such, paths were drawn from these three variables, as control variables, to psychological safety and employee innovation. After that, the model was tested for fit and path coefficient.

The results demonstrated that the hypothesized model fit the data ($\chi 2$/df=1.683; CFI=.90; TLI=.86; IFI=.90; RMSEA=.08; and SRMR=.78). Figure 1 below presents the results of the hypothesized model. The results supported Hypothesis 1, which posited that psychological safety would be positively related to employee innovation (0.83, P<.001). Leader inclusiveness was found to be related to psychological safety (0.26, P < .05), which supports Hypothesis 2a. Furthermore, Hypothesis 3a was supported as respectful relationships were found to be related significantly to psychological safety (0.35, P<.01). However, no support was found for Hypothesis 4a (the path from role clarity to psychological safety), which means, in turn, that Hypothesis 4b being rejected. Moreover, no support was found for Hypothesis 5a, the path from proactive personality to psychological safety, which, ultimately, led to the reject of Hypothesis 5b. Nevertheless, the findings showed a significant association between autonomy and psychological safety (0.36, P<.05), which supports Hypothesis 6a.

Figure 1: Results of the Hypothesised Model

Fit indices: χ^2/df = 1.683; CFI = .895; TLI = .86; IFI = .90; RMSEA = .08; and SRMR = .78. The estimates are from the standardised regression weights. *p <.05; ** p < .01; *** p < .001
Source: Authors' own work

According to Baron and Kenny (1986), Kenny et al. (1998) and Kenny (2018), two conditions must be met to test mediation. First, a significant relationship must be found between the independent variable and the mediator; second, the mediator must be significantly associated with the dependent variable. This should be in a model where there are direct paths from the exogenous to the endogenous variables. If the direct path is not significant and the indirect path through the mediator is significant, then there is a full mediation; but, if the direct and indirect paths are significant, then there is a partial mediation. As such, direct paths from the independent to the dependent variables were added to the earlier model and tested again.

Figure 2 demonstrates the outcomes of the mediation testing (Model 1). This model achieved slightly better fit indices as $\chi2/df=1.602$; CFI=.91; TLI=.88; IFI=.91; RMSEA=.076; SRMR=.76. The results from Model1 are similar to the hypothesized model with the addition that proactive personality was found to be directly associated with employee innovation. In terms of mediation, the outcomes supported the proposed mediation of psychological safety between leader inclusiveness and employee innovation (Hypothesis 2b) as the indirect path remained significant after adding the direct path, which was not significant. Hypothesis 3b was also supported, which proposed the mediation psychological safety between respectful relationships and employee innovation. However, no support was found to Hypothesis 4a and 4b as role clarity was not found to be significantly related to psychological safety and employee innovation. Furthermore, the findings did not support the mediation of psychological safety between proactive personality and employee innovation (Hypothesis 5b) as the indirect path was not significant; however, proactive personality was found to be positively and significantly related to employee innovation (.47, P<.001). Finally, there was support for the mediation of psychological safety in the relationship between autonomy and employee innovation (Hypothesis 6b) as the indirect path kept significant while the direct path was not significant. Only one demographic variable was found to have a significant influence on psychological safety, which was the type of work contract (-.35, P < .001).

Figure 2: Results of the Mediation Testing (Model 1)
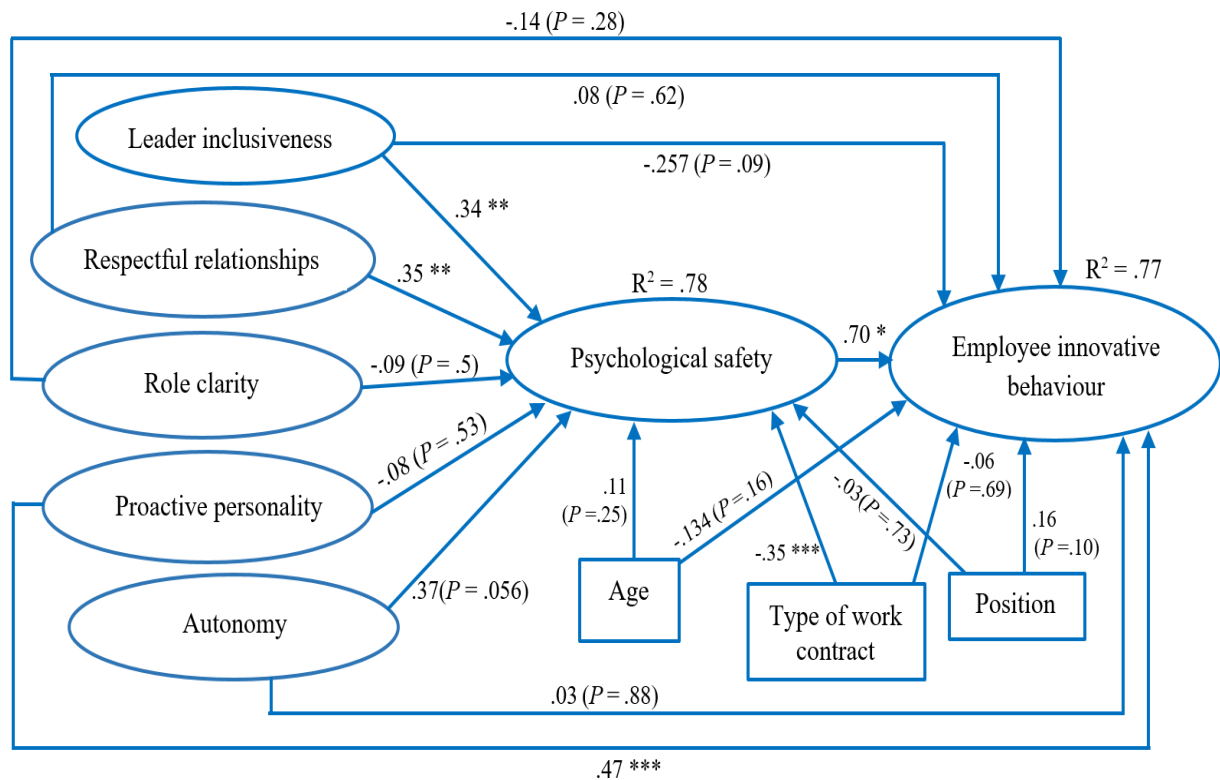
Fit indices: χ2/df=1.602; CFI=.91; TLI=.88; IFI=.91; RMSEA=.076; SRMR=.76. These estimates were obtained from the standardized regression weights. *p<.05; ** p< .01; *** p< .001
Source: Authors' own work

Based on the results from the hypothesized model and Model 1 and the outcomes from the estimated correlations, a modified model was developed and examined (Model 2). In this model, we sought to examine the relationships that we could not examine in the first model. Therefore, new paths were added from leader inclusiveness and role clarity to autonomy, and paths from respectful relationships and autonomy to proactive personality. Figure 3 illustrates the results of a chain-mediation model for employee innovation (Model2). This model attained the best-fit indices, in comparison with the previous models, as χ2/df=1.555; CFI=.91; TLI=.89; IFI=.91; RMSEA=.073; SRMR= .78.

The results from Model 2 are identical to the results from the hypothesized model and supported new relationships. For example, the modified model supported Hypotheses 1, 2a, 2b, 3a, 3b, 6a, 6b and did not support Hypotheses 4a, 4b, 5a and 5b. The new results were that leader inclusiveness was found to be related to autonomy (.29, P<.05), which denotes that autonomy partially mediated the influence of leader inclusiveness on psychological safety. In other word, leader inclusiveness can affect employee innovation through one mediator (psychological safety) and via two mediators (autonomy and psychological safety).

Figure 3: Results of the Modified Model (Model 2)
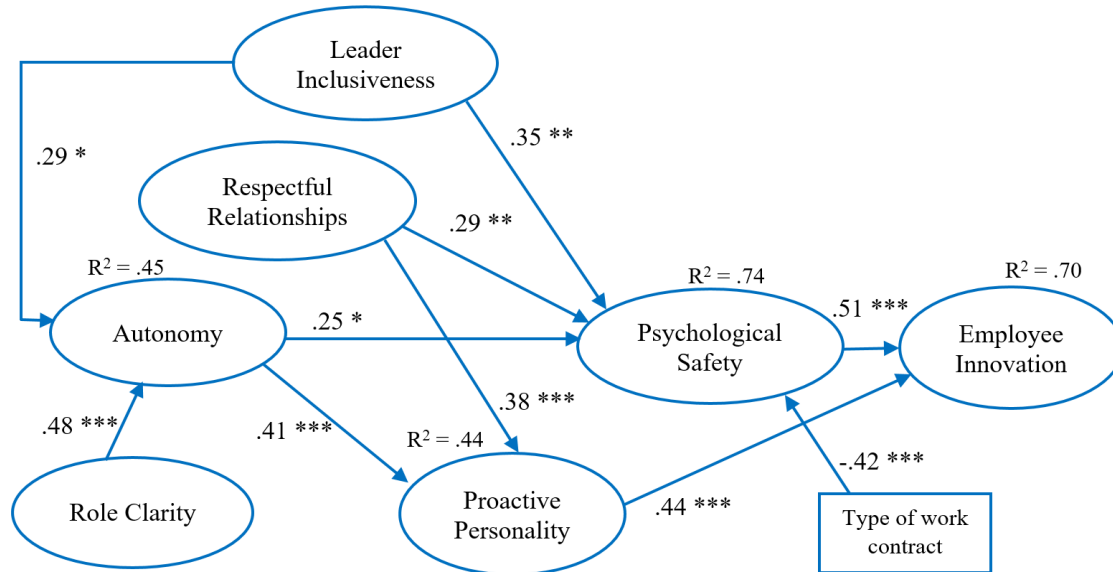
Fit indices: $\chi 2/df$=1.555; CFI=.91; TLI=.89; IFI=.91; RMSEA=.073; SRMR=.78. These estimates were obtained from the standardized regression weights. *p<.05; ** p<.01; *** p<.001
Source: Authors' own work

Respectful relationships were discovered to be related to proactive personality (.38, P<.001), and proactive personality was revealed to be related to employee innovation (.44, P<.001). This means that respectful relationships can influence employee innovation through psychological safety and through proactive personality. Furthermore, a significant association was found between autonomy and proactive personality (.44, P < .001), which denotes autonomy can influence employee innovation through psychological safety and through proactive personality. The findings also revealed that role clarity was positively and significantly associated with autonomy (.48, P < .001). As the posited association between role clarity and both psychological safety and employee innovation was not supported, it can be concluded that role clarity can affect employee innovation through autonomy and (proactive personality or psychological safety). Finally, the type of work contract was found to affect psychological safety (-.42, P<.001), which could mean that people with full-time contracts feel psychological safer than those who do part-time jobs. Nevertheless, it should be taken into consideration that the majority of the participants in this study (about 70%) had full-time contracts.

6. Discussion

The results of the SEM, as predicted, showed a positive and significant association between psychological safety and employee innovation in all the tested models. For instance, the outcomes support the idea that when employees feel safe in their work environment to speak up, propose suggestions or try to change the status quo, they will be more inclined to engage in innovative activities. This feeling of safety can alleviate the risk of being seen negatively by others when trying new work methods or suggesting novel ideas. The findings here are consistent with past studies (e.g. Carmeli et al., 2010; Carmeli et al., 2014; Frazier et al., 2016; Kark and Carmeli, 2009; Vinarski-Peretz and Carmeli, 2011). The results advance our understanding of how to encourage employees to engage in innovative behavior by focusing on a vital and neglected element in the hotel industry which is employees' feeling of safety. As little is known about the influence of psychological safety on employee innovation in the hotel industry, this result can be considered a significant contribution as it provides practical recommendations to hoteliers on how to encourage employees' innovative behavior in their hotels.

The outcomes also demonstrated, as we proposed, that leader inclusiveness is positively associated with psychological safety, and that psychological safety fully mediates the influence of leader inclusiveness on employee innovation. This means that the leader who is open to employees' suggestions, asks for their opinions and encourages and appreciates employees' contribution (leader inclusiveness) can make employees feel psychologically safe to engage in innovative activities at work such as proposing novel ideas or trying new work methods. This result is in concur with various past studies that have focused on the important role of leadership, particularly leader inclusiveness, on enhancing employees' perception of psychological safety and innovative behavior in different work setting such as in technological companies (e.g. Carmeli et al., 2010) and in the healthcare sector (e.g. Nembhard and Edmondson, 2006). However, this study could be the first to examine this relationship in the hotel industry.

The findings also showed a positive association between autonomy and psychological safety, and that psychological safety fully mediated the relationship between autonomy and employee innovation. This means that giving employees some freedom (autonomy) to decide how to fulfil their tasks can make them feel psychologically safe to take risks and demonstrate innovative behaviors. This result answers the calls for empirical studies to further examine the relationship between autonomy and psychological safety (e.g. Frazier's *et al.,* 2016) and

employee innovation (e.g. Hammond *et al.,* 2011). This study could be the first to examine the mediating role of psychological safety between autonomy and employee innovation.

The outcomes of this research also demonstrated a positive association between leader inclusiveness and autonomy at work. This denotes that an inclusive leader, who motivates subordinates to perform and tolerates their mistakes when trying new work methods, can promote employees' perception of autonomy, and that can make them feel safe to innovate. This notion is supported by the results as it has been found that the feeling of freedom or autonomy is associated with psychosocial safety. However, reviewing the literature showed that little is known about the relationship between leader inclusiveness and autonomy in working environments, and the influence of leader inclusiveness on autonomy, psychological safety and employee innovation seems to be neglected in the hotel industry. As such, the results contribute to knowledge by enhancing the understanding of how leaders' behavior can cultivate employee innovation. In addition, the results contribute to the theory of leader inclusiveness, psychological safety (Carmeli *et al.,* 2010; Nembhard and Edmondson, 2006), and autonomy (Hammond *et al.,* 2011) as promoters of employee innovation. Thus the findings here provide practical recommendations to practitioners in the hotel industry on how to encourage employees' innovative behavior at their hotels.

Explaining to employees their responsibilities and what do their jobs involve (role clarity) was proposed to promote psychological safety. Also, psychological safety was posited to mediate the relationship between role clarity and employee innovation. However, the results did not support these hypotheses as no positive associations were found between role clarity and psychological safety nor with employee innovation. Nevertheless, the results suggested that autonomy mediated the relationship between role clarity and psychological safety in the hotel industry as a positive association was found between role clarity and autonomy. This relationship between role clarity and autonomy has been discussed in some previous studies (e.g. Mukherjee and Malhotra, 2006). Moreover, role clarity has been suggested in various studies to enhance employees' perception of psychological safety (e.g. Frazier *et al.,* 2016), employee engagement (e.g. Choo, 2017), satisfaction (e.g. Nansubuga and Munene, 2013), and innovative behavior (e.g. Carmeli and Schaubroeck, 2007; Scott and Bruce, 1994; Unsworth *et al.,* 2005), and to reduce stress and conflicts in work settings, which, in turn, can improve the overall performance, particularly in the hotel industry (Nickson, 2013). As such, the results here are supported by past studies in that giving employees a clear understanding of their duties and responsibilities can affect their feeling of autonomy, which, ultimately, can make them feel psychologically safe to innovative. To our knowledge, this study could be the first the shed light on the association between role clarity, autonomy, psychological safety and employee

innovation in hotels, and that represents a substantial contribution to the discussion of how to foster innovation in the hotel industry.

Contrary to the researchers' expectations, no association was found between proactive personality and psychological safety. This is also in contrast to the suggestions of some past studies such as Frazier *et al.* (2016) and Detert and Burris (2007). This result led to the rejection of the hypothesized relationship between proactive personality and psychological safety, which, in turn, led to rejection for the posited mediation role of psychological safety in the relationship between proactive personality and employee innovation. One possible explanation is that proactive people do not worry much about how safe is their work environment to propose novel ideas or try different work methods as they tend to engage in their work even if the climate is psychologically unsafe (Chan, 2006; Frazier *et al.,* 2016). However, the results revealed that proactive personality was related directly to employee innovation. This positive association is still consistent with several past studies (e.g. Chen, 2011; Seibert *et al.,* 2001). For example, Chen *et al.* (2011) suggested that, in the hotel industry, a proactive personality can motivate employees to develop innovative solutions that enhance performance. Furthermore, as employees in hotels need to respond to guests' requests in satisfying manners, proactive personalities are of importance as such people have the capability to develop innovative ideas (Miron *et al.,* 2004). As such, it is recommended for hotels to attract proactive people to encourage innovative behaviors in their capacities as such people would be more inclined to take initiatives and engage in innovative activities.

The results demonstrated, as expected, a positive and significant association between respectful relationships at work and psychological safety, and that the latter was found to fully mediate the relationship between respectful relationships and employee innovation. This denotes that having respectful relationships amongst employees at work settings can create a supportive work climate where employees would feel safe to generate, suggest and implement innovative solutions. In contrast, a lack of respect in the workplace could create a stressful climate and hinder employees' innovative endeavours as they might feel vulnerable and fear being seen negatively by others. As such, positive relationships between employees could reduce stress and uncertainty and possibly encourage employees to feel safe to speak up and share novel ideas. This result is in line with wide past studies such as the work of Carmeli and Gittlell (2009), Frazier *et al.* (2016), Vinarski-Peretz and Carmeli, (2011), and Yuan and Woodman, (2010). This confirms the notion that respectful relationships can work as a motivator that fosters employees' innovative behavior by mitigating their fear of negative repercussions.

Respectful relationships were also found to be related to proactive personality, and the latter fully mediated the influence of respectful relationships on employee innovation. This denotes that respect amongst employees at the workplace can encourage them to become more proactive in developing initiatives and taking opportunities. Indeed, having a respectful interaction can make an employee believe that his or her ideas will be respected by others, and that could encourage an employee to take risks such as trying new work procedures or changing the status quo. To the best of our knowledge, no past research has studied the impact of respectful relationships among employees on proactive behavior, nor the mediation role of being proactive in the relationship between respectful relationships and employee innovation. This illustrates the significant contributions of this study as it sheds light on an area that received little attention from scholars, particularly in the hotel industry.

7.Theoretical Contributions

The primary objective of this study is to examine factors that foster psychological safety and employee innovation within the UK's upscale hotel industry. The proposed model constitutes the primary contribution of this research, addressing gaps in the literature. Responding to prior calls for more research in psychological safety and innovation, particularly within the hotel sector, this study introduces several variables as precursors to psychological safety. Additionally, despite the substantial economic contribution of tourism and hospitality, innovation in these fields has received limited scholarly attention. This study bridges this gap by investigating what encourages employees in four- and five-star UK hotels to feel psychologically secure to engage in innovative behaviors. This research probes the correlation between psychological safety and employee innovation, echoing established findings while deepening the comprehension of enhancing innovative behaviors. Particularly novel is the examination of psychological safety as a mediator in this relationship. Each antecedent in this study holds unique contributions.

Investigating psychological safety's mediation between autonomy and employee innovation adds depth to discussions surrounding autonomy, safety, and innovation. Positive associations are established between autonomy, proactive behavior, and psychological safety, where proactive personality fully mediates autonomy's impact on innovation. These findings underscore the importance of autonomy in fostering both psychological safety and proactive engagement, particularly in the hotel industry. The positive correlation between role clarity and autonomy, while debated, is substantiated in this study, uniquely contributing to the hotel industry's understanding of the role clarity-autonomy relationship's impact on psychological safety and innovation. Respectful workplace relationships are demonstrated to significantly enhance psychological safety, proactive behavior, and employee innovation, aligning with

established theories of high-quality work relationships, personal interactions, and psychological safety. This contribution fills a research gap in the relatively unexplored hotel industry context, further enriching literature on workplace relationships, safety, proactive behavior, and innovation.

8. Managerial Implications

Based on the results from this study, various recommendations are suggested to the hotel industry, particularly the UK's four- and five-star hotels:

First, in the dynamic landscape of the hospitality industry, innovation plays a pivotal role in driving competitiveness and guest satisfaction. Encouraging employees to embrace innovative activities, such as adopting new work methods or voicing their ideas, can be a challenging endeavor due to inherent uncertainties and risks. To address this, it is highly recommended that hotels prioritize creating a workplace environment that fosters psychological safety. By cultivating an atmosphere where employees feel secure in expressing their thoughts without fear of retribution, hotels can stimulate a culture of innovation. Psychological safety enables employees to take calculated risks, share creative insights, and actively contribute to the hotel's growth. Second, effective communication lies at the heart of successful hotel management. In order to harness the potential of their workforce, hotel management should adopt an open-door policy that extends beyond mere rhetoric. Actively engaging with subordinates, attentively listening to their suggestions, and providing constructive feedback are integral components of nurturing an innovative atmosphere. By demonstrating receptiveness to employee inputs, management not only empowers their staff but also instills a sense of trust. This trust, in turn, cultivates an environment where employees feel empowered to contribute innovative ideas, knowing their voices are valued and their perspectives considered.

Third, empowering employees to participate in the innovation process requires a multifaceted approach. Clarity in outlining job responsibilities, coupled with offering autonomy and flexibility in executing tasks, can greatly enhance employee engagement. Moreover, recognizing and rewarding innovative ideas underscores their significance within the organization. A well-established mechanism for acknowledging creative contributions serves as a powerful motivator for employees to proactively engage in suggesting improvements and novel strategies. This holistic approach not only boosts morale but also establishes a framework where innovation becomes an intrinsic aspect of the hotel's operational ethos. Finally, the foundation of an innovative work environment rests on a bedrock of mutual respect and collaboration among employees. Fostering a climate where all team members are

treated with respect and encouraged to interact socially engenders a sense of belonging and inclusivity. Such an environment paves the way for the development of psychological safety, where employees feel comfortable sharing their opinions and engaging in open discussions. The interplay of diverse perspectives, facilitated by a respectful work climate, becomes the breeding ground for innovative ideas to flourish, ultimately propelling the hotel's excellence and success. In conclusion, these practical recommendations offer a comprehensive blueprint for hotel management in four and five-star establishments across the UK. By prioritizing psychological safety, open communication, empowerment, and a respectful work climate, hotels can create an environment conducive to innovation, enabling them to navigate the challenges of the industry and deliver exceptional guest experiences.

9. Limitations and directions for future research

Various limitations should be considered when interpreting the results of this study. First, the findings were based on only 105 participants from different organizational levels from four- and five-star hotels in the UK, which make the small sample size a limitation for this study. Nevertheless, the sample size was adequate to carry out the study. Though, a larger sample size is recommended for future studies and to collect the data from wider geographical areas and from different hotel categories to enhance the generalizability of the findings to the hotel industry and to recognize any differences between the characteristics of the hotels.

Second, as this is cross-sectional research where the data were gathered at one point in time, future research is recommended to conduct longitudinal studies that gather data at different points in time, which would enable them to examine the causal relationships between constructs such as management support and motivation, psychological safety and employee innovative behavior in an advanced method. Future research is recommended to conduct qualitative studies to explore, from the employees' and management perspective, what promotes psychological safety and employee innovation in different work settings. Furthermore, it is advised for future studies to explore the impact of culture on employees' perception of psychological safety and their innovative behavior. Moreover, it is suggested for researchers to examine the mediation of other elements and extend the model by including other factors such as learning behavior, employee intention to leave the job, employee involvement and employee burnout. Finally, as the majority of past studies on innovation in hotels were conducted in Asian countries, more studies are needed in the west.

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