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Balancing Business and Well-being: A Dual-Method Study on Hospitality Workforce Retention in Vietnam

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Abstract

This study provides a comprehensive exploration of employee retention (ER) in Vietnam's luxury hotel sector, leveraging Smart Partial Least Squares (Smart PLS) and Fuzzy-Set Qualitative Comparative Analysis (fsQCA) to uncover deep-seated patterns and strategic insights. The Smart PLS results reveal the intricate roles of Green Human Resource Management (GHRM), Knowledge Sharing (KS), Mindfulness (MF), and Innovative Climate (IC) in shaping ER, with IC standing out as a powerful mediator that enhances the influence of GHRM and MF. While KS does not directly impact ER, its indirect role through IC highlights its situational significance. Meanwhile, fsQCA offers a more granular perspective, identifying key retention-driving configurations where IC, GHRM, and MF consistently emerge as critical factors, with KS proving indispensable when integrated within an IC- and MF-rich environment.These findings underscore the interconnected and dynamic nature of effective retention strategies, advocating for a holistic approach that integrates sustainability, innovation, collaboration, and mindfulness. By synthesizing both linear and configurational perspectives, this study not only provides actionable insights for industry practitioners but also enriches retention theory, laying the groundwork for broader applications across diverse organizational landscapes and future longitudinal investigations.

Keywords: *Employee Retention, Innovative Climate, Green Human Resource Management, Mindfulness, Fuzzy-Set Qualitative Comparative Analysis.*

Introduction

Employee retention (ER) remains a pressing concern for organizations, particularly in sectors marked by high turnover and fierce competition, such as hospitality (Edirisinghe & Manuel, 2019). Ensuring a stable workforce is essential for sustaining service excellence, enhancing customer satisfaction, and maintaining organizational resilience, while also mitigating the substantial financial and operational costs associated with employee departures (Tews et al., 2020). In Vietnam's luxury hotel industry, this challenge is even more pronounced, as rapid sectoral growth and intensifying competitive dynamics heighten the demand for forward-thinking and impactful retention strategies (Phan et al., 2023).

Existing research identifies several interconnected factors shaping employee retention (ER), particularly in dynamic industries like hospitality. Among them, Green Human Resource Management (GHRM) (Islam et al., 2023), Innovative Climate (IC) (Fazal-e-Hasan et al., 2023), Knowledge Sharing (KS) (Awawdeh et al., 2024), and Mindfulness (MF) (Liu et al., 2024) stand out as pivotal influences. GHRM integrates sustainability into HR policies, fostering employee

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engagement and long-term commitment through environmentally conscious practices (Islam et al., 2023; Jinliang et al., 2023; Rubel et al., 2021; Zhang & Peng, 2023). Meanwhile, IC cultivates an atmosphere of creativity and collaboration, strengthening employee satisfaction and organizational loyalty (Jobbehdar Nourafkan et al., 2023; Peng & Chen, 2023; Widianto et al., 2012). KS encourages knowledge exchange, reinforcing a cooperative workplace culture that enhances retention (Jinliang et al., 2023; Pervez et al., 2022). Lastly, MF equips employees with tools to manage stress and maintain focus, bolstering well-being and job satisfaction (Brown & Ryan, 2003; Johnson & Park, 2020). While extensive research has explored these factors individually, limited studies examine their collective interactions in shaping ER. This gap underscores the need for a more integrated perspective, recognizing retention as the outcome of interdependent organizational and individual dynamics rather than isolated variables.

Traditional research on employee retention (ER) has primarily relied on linear analytical methods, focusing on direct relationships while often neglecting the systemic and configurational complexities of ER dynamics (Griffeth et al., 2000; Hom et al., 2017). This conventional approach limits the ability to uncover how multiple factors interact to shape retention outcomes (Meyer & Allen, 1991). A more nuanced understanding of these interdependencies is essential for developing holistic strategies that effectively address the multifaceted nature of ER.

To bridge this gap, the present study employs a dual-method framework, integrating Smart Partial Least Squares (Smart PLS) and Fuzzy-Set Qualitative Comparative Analysis (fsQCA). Smart PLS provides a structured examination of direct and mediated effects, delivering a linear perspective on the interplay among Green Human Resource Management (GHRM), Innovative Climate (IC), Knowledge Sharing (KS), Mindfulness (MF), and ER. In contrast, fsQCA identifies optimal configurations of these factors, revealing their interactive and conditional influences. By leveraging the strengths of both methods, this research aims to offer a more comprehensive and multidimensional understanding of ER mechanisms within Vietnam's luxury hotel sector (Fiss, 2011).

This study aims to address two fundamental questions: (1) How do Green Human Resource Management (GHRM), Innovative Climate (IC), Knowledge Sharing (KS), and Mindfulness (MF) impact Employee Retention (ER), both individually and in combination? (2) What specific configurations of these factors are sufficient for achieving high retention rates?

By exploring these questions, the study contributes to both theoretical advancements in ER research and practical strategies for strengthening workforce retention in the hospitality sector. The structure of this paper is as follows: The next section presents a comprehensive literature review and formulates key hypotheses, followed by the research methodology. Subsequent sections detail the findings, offering insights into their theoretical and managerial implications, before concluding with study limitations and directions for future research.

Literature Review

Theoretical Foundation

This study draws upon several established theoretical frameworks to examine the interconnected influences of Green Human Resource Management (GHRM), Knowledge Sharing (KS), Mindfulness (MF), and Innovative Climate (IC) on Employee Retention (ER).

Social Exchange Theory (SET)

Social Exchange Theory (SET) (Blau, 1964) provides a foundational perspective on how organizational investments in sustainability, innovation, and employee well-being foster reciprocal behaviors such as commitment and loyalty (Blau, 2017; Cook et al., 2013). When organizations prioritize practices like GHRM and cultivate an IC, employees perceive these efforts as signals of organizational support, leading them to reciprocate through increased engagement and lower turnover intentions (Wallenburg & Handfield, 2022). This theory underscores the need to create a work environment where employees feel valued, ultimately strengthening ER.

Organizational Support Theory (OST)

Complementing SET, Organizational Support Theory (OST) (Eisenberger et al., 1986) emphasizes that employees' perceived organizational support for innovation and sustainability reinforces their emotional attachment to the organization. OST posits that GHRM practices signal an organization's commitment to employee well-being and shared values, fostering trust and loyalty (Aboramadan et al., 2022). Additionally, an IC enhances this effect by providing the structural and cultural conditions necessary for employees to engage in sustainability and innovation initiatives, further promoting retention (Eisenberger et al., 2020; Kurtessis et al., 2017).

Absorptive Capacity Theory

Absorptive Capacity Theory (Cohen & Levinthal, 1990) examines an organization's ability to recognize, assimilate, and apply knowledge, making it particularly relevant for understanding the roles of KS and IC in fostering innovation and ER. Organizations that promote a strong knowledge-sharing culture are better positioned to leverage employee expertise for driving innovation (Chatterjee et al., 2022). This theory suggests that IC acts as a mediator, translating shared knowledge into innovative behaviors that enhance job satisfaction and organizational commitment.

Job Demands-Resources (JD-R) Model

The Job Demands-Resources (JD-R) Model (Bakker & Demerouti, 2007) situates mindfulness (MF) as a crucial personal resource that enables employees to manage job demands, mitigate stress, and improve overall well-being. The JD-R Model argues that employees who cultivate mindfulness are better equipped to navigate workplace challenges, maintaining higher levels of engagement and satisfaction (Mellner et al., 2022). When combined with an IC, MF fosters a supportive and collaborative work environment that encourages creativity, strengthens interpersonal connections, and ultimately reduces turnover intentions (Hsieh et al., 2022).

Current Studies on Key Variables

Employee Retention (ER)

ER remains a critical concern for organizations, particularly in industries characterized by intense competition and high turnover, such as hospitality. Frequent employee departures lead to increased recruitment and training expenses, erosion of organizational knowledge, and declining workplace morale (Hom et al., 2019; Samuel & Chipunza, 2009). Traditional research has largely emphasized factors like compensation, career growth opportunities, work-life balance, and organizational culture (Al-Emadi et al., 2015). While these approaches address

specific aspects of ER, there is a growing shift toward integrated strategies that merge sustainability, collaboration, and employee well-being to ensure long-term retention.

Recent studies underscore the significance of workplace integration and organizational support in enhancing ER (Climek et al., 2024; Tukiran et al., 2024). However, many existing analyses overlook the interplay of these factors and their contextual relevance to specific industries and regions. Additionally, research on the combined effects of Green Human Resource Management (GHRM), Knowledge Sharing (KS), Mindfulness (MF), and Innovative Climate (IC) on ER remains limited, particularly in emerging markets like Vietnam (Bekhit et al., 2023; Islam et al., 2022).

Green Human Resource Management (GHRM)

GHRM integrates environmental sustainability into HR strategies, fostering eco-conscious behaviors while enhancing overall organizational performance (Al-Swidi et al., 2024; Tang et al., 2018). Core GHRM practices include sustainable recruitment, eco-friendly training, performance evaluation, and employee engagement in environmental initiatives (Islam et al., 2023; Jinliang et al., 2023; Lutfi et al., 2024). These practices align corporate values with employee priorities, cultivating a sense of purpose and loyalty (Dumont et al., 2017).

While research links GHRM to higher employee satisfaction and retention (Fazal-e-Hasan et al., 2023; Guerci et al., 2016), its direct impact on ER warrants further investigation. Additionally, the interaction of GHRM with KS and IC highlights the need for a more integrated approach to maximize its effectiveness. Mishra (2017) and Zhang & Peng (2023) argue that inconsistencies in implementing GHRM policies reduce their potential influence, emphasizing the importance of sustained organizational commitment to sustainability initiatives.

Knowledge Sharing (KS)

KS facilitates collaboration, continuous learning, and problem-solving by enabling employees to exchange expertise and insights (Wang & Noe, 2010). A collaborative knowledge-sharing culture fosters a supportive work environment, boosting job satisfaction and engagement—key drivers of ER (Issac et al., 2024).

However, organizations often struggle with KS due to siloed structures and inadequate support mechanisms (Zhang, 2024). Research suggests that KS is most effective when embedded within broader workplace cultures emphasizing innovation, sustainability, and mindfulness (Hanif et al., 2020; Mahmoud et al., 2023). Despite its demonstrated benefits, the specific role of KS in conjunction with GHRM and IC in driving ER in hospitality settings remains underexamined (Liu et al., 2024).

Mindfulness (MF)

MF enhances employees' ability to manage stress, sharpen focus, and foster cognitive flexibility, leading to greater job satisfaction and lower turnover intentions (Deshpande et al., 2024). Mindfulness encourages divergent thinking and creative problem-solving—critical components of workplace innovation and engagement (Hülsheger et al., 2013; Zhao et al., 2023).

Despite its growing acceptance, MF's integration with broader HR strategies such as GHRM and KS for enhancing ER remains insufficiently explored (Chen et al., 2022). Organizations incorporating mindfulness-based initiatives report higher levels of employee satisfaction and engagement, yet its interaction with IC in shaping a dynamic and supportive work environment

demands further investigation (Montani et al., 2020).

Innovative Climate (IC)

IC refers to an organizational environment that stimulates creativity, collaboration, and ongoing learning, empowering employees to contribute to innovation while achieving strategic goals (Kim et al., 2024; Srirahayu et al., 2024). Research suggests that IC mediates the relationships between GHRM, KS, and MF with ER by fostering an engaging and dynamic workplace (Rana & Arya, 2024).

Organizations with a strong IC typically experience higher retention rates, as employees feel valued, motivated, and encouraged to contribute to innovation and problem-solving. Studies suggest that IC strengthens employee engagement by promoting idea generation and collaborative learning (Montani et al., 2020). However, the specific mechanisms through which IC interacts with other key variables to influence ER, particularly in the hospitality sector, remain underexplored (Iqbal et al., 2024).

Methodology

Measures

All constructs in this study's conceptual framework are assessed using validated scales from prior research, carefully adapted to align with the study's context. Each item is rated on a 5-point Likert scale, where 1 denotes "strong disagreement" and 5 signifies "strong agreement."

The measurement of Green Human Resource Management (GHRM**)** follows the scale developed by Tang et al. (2018), evaluating key dimensions such as eco-conscious recruitment, environmental training, sustainability-driven performance assessments, and employee engagement in green initiatives**.**

Employee Retention (ER) is assessed using an adapted scale from Hom & Griffeth (1991), focusing on employees' intent to remain within their organization.

The evaluation of Knowledge Sharing (KS) utilizes the scale by Wang & Noe (2010), capturing the extent to which employees exchange insights, skills, and work-related experiences with their colleagues.

Innovative Climate (IC) is measured using Janssen's (2000) scale, emphasizing the generation, promotion, and implementation of innovative ideas within the workplace**.**

Lastly, Mindfulness (MF)

Construct	Source	Sample Items
GHRM Practices	Tang et al. (2018)	- My company includes environmental criteria in the hiring process. - Environmental training programs are provided.
Employee Retention	Hom & Griffeth (1991)	- I intend to remain with this company for the upcoming year. - I do not intend to quit my job.
Knowledge Sharing	Wang & Noe (2010)	- I consistently share work-related knowledge with colleagues. - I discuss useful information with peers.

Construct	Source	Sample Items
Innovative Climate	Janssen (2000)	- New ideas can easily get support in my company. - My company rewards technological innovation.
Mindfulness	Brown & Ryan (2003)	- Staying focused on the present moment is challenging for me (reverse-scored). - I complete tasks automatically without being conscious (reverse-scored).

Table 1: Measures of Constructs

Sampling and Data Collection

This study employs a quantitative approach to examine the influence of Green Human Resource Management (GHRM), Knowledge Sharing (KS), Mindfulness (MF), and Innovative Climate (IC) on Employee Retention (ER) within Vietnam's 4- and 5-star hotel sector**.** To ensure comprehensive representation across major hospitality hubs—Hanoi, Da Nang, and Ho Chi Minh City—a stratified random sampling method was utilized, incorporating diverse hotel chains and employee roles.

The final sample consists of 298 employees**,** determined in accordance with Structural Equation Modeling (SEM) guidelines (Kyriazos, 2018; Wolf et al., 2013), ensuring robust statistical validity.

Data collection was conducted through self-administered questionnaires, distributed both online and in person**.** To maintain linguistic accuracy, the survey underwent a translation-back translation process into Vietnamese. Respondents were fully briefed on the study's objectives, assured of confidentiality**,** and provided informed consent**,** adhering strictly to ethical research standards.

Category	Subcategories	%
Gender	Male	51.68
	Female	48.32
Job Position	Supervisor	26.51
	Staff	24.83
	Manager	24.83
	Executive	23.83
Education	High School	24.50
	Bachelor's Degree	56.38
	Master's Degree	17.44
	PhD	1.68
Experience	<1 Year	23.15
	1–3 Years	20.47
	4–6 Years	19.46
	7–10 Years	18.79

Category	**Subcategories**	**%**
	>10 Years	18.45
City	Hanoi	35.23
	Da Nang	34.56
	Ho Chi Minh City	30.21
Hotel Department	Front Desk	27.85
	Housekeeping	26.17
	Food & Beverage	22.81
	Management	

Table 2: Participant Profile

Data Analysis Approach

Smart PLS Process

Smart PLS was utilized to assess the relationships among Green Human Resource Management (GHRM), Knowledge Sharing (KS), Mindfulness (MF), Innovative Climate (IC), and Employee Retention (ER), given its effectiveness in handling complex models, small sample sizes, and non-normal data distributions (Hair et al., 2019; Sarstedt et al., 2017). The analytical process involved several key steps:

- Model Specification – A structural model incorporating latent constructs **(**GHRM, KS, MF, IC, and ER**)** was developed using validated scales, accounting for both direct and mediated effects**.**

- Data Preparation – Survey responses were meticulously screened for missing values and standardized to ensure consistency (Hair et al., 2017).

- Outer Model Evaluation **–** Reliability and validity were examined through composite reliability (CR > 0.7), average variance extracted **(**AVE > 0.5), and discriminant validity via the Fornell-Larcker criterion and HTMT ratio (Fornell & Larcker, 1981; Henseler et al., 2015).

- Inner Model Evaluation **–** Path coefficients were estimated, with bootstrapping (5,000 resamples) employed for hypothesis testing. Predictive accuracy was assessed using R^2 values and effect sizes (f^2) (Hair et al., 2019).

- Mediation Analysis **–** IC's indirect effects were examined via bootstrapping to determine its mediating influence on GHRM, KS, and MF in relation to ER (Preacher & Hayes, 2008).

- Model Fit **–** The standardized root mean square residual (SRMR < 0.08) confirmed a statistically acceptable model fit (Henseler et al., 2014).

The findings reinforced significant direct and mediated relationships, highlighting the central role of IC in enhancing ER. Smart PLS offered robust insights into how sustainability, collaboration, and mindfulness collectively strengthen retention strategies within Vietnam's hotel industry.

fsQCA Process

In the rapidly evolving hospitality industry, retaining employees is no longer just a matter of

financial incentives or career progression—it is a complex interplay of sustainability, collaboration, innovation, and well-being. Vietnam's luxury hotel sector, marked by fierce competition and continuous growth, faces mounting challenges in workforce stability, demanding strategic approaches that extend beyond conventional retention models. This study redefines the conversation by integrating Green Human Resource Management (GHRM), Knowledge Sharing (KS), Mindfulness (MF), and Innovative Climate (IC) into a holistic framework that captures both linear and configurational perspectives on employee retention (ER). By employing a dual-method approach with Smart PLS and fsQCA, this research not only deepens theoretical understanding but also provides actionable insights for practitioners seeking to cultivate resilient and engaged workforces in high-turnover industries.

This methodology was chosen to reflect the asymmetric and multifaceted nature of ER in the hospitality industry, where different combinations of GHRM, KS, MF, and IC can create sufficient conditions for high retention**.** By moving beyond traditional linear analyses, fsQCA offers valuable insights into how these factors interact dynamically, allowing organizations to develop tailored and effective retention strategies**.**

Steps in fsQCA Analysis

Following Ragin's (2017) structured approach, the fsQCA analysis involved four key steps:

Calibration of Fuzzy Sets **–** Likert scale responses (1–5) were converted into fuzzy membership scores**,** establishing benchmarks for full membership (95%)**,** cross-over anchors (50%)**, and** full non-membership (5%) for GHRM, KS, MF, IC, and ER, as outlined in Table 3**.**

Fuzzy Membership	**GHRM**	**KS**	**MF**	**IC**	**ER**
5% (Non-Membership)	1	1	1	1	1
50% (Cross-over)	3	3	3	3	3
95% (Full Membership)	5	5	5	5	5

Table 3: Fuzzy Membership Scores

Identification of Sufficient Configurations **–** A consistency threshold of 0.85 was applied, with a minimum frequency of 1 case per configuration**,** ensuring robustness and empirical relevance in the identified pathways.

Solution Selection **–** The standard fsQCA process generated three solution types**:** complex, parsimonious, and intermediate**.** The intermediate solution was selected for its optimal balance between simplicity and coverage**,** enabling a clearer interpretation of results.

Analysis of Configurations – The intermediate solution revealed distinct causal pathways**,** illustrating how various combinations of GHRM, KS, MF, and IC contribute to high ER**.** These insights emphasize the importance of integrated retention strategies**,** showcasing how sustainability, knowledge exchange, innovation, and mindfulness can collectively enhance workforce stability.

Smart PLS Results

The results from Smart PLS analysis demonstrate robust reliability, validity, and significant insights into the relationships among GHRM, KS, MF, IC, and ER. Table 3 summarizes the

construct reliability and validity, showcasing outer loadings ranging from 0.707 to 0.893, with AVE values between 0.581 and 0.742, exceeding the threshold of 0.50 (Fornell & Larcker, 1981). Composite reliability (CR) values range from 0.888 to 0.940, and Cronbach's Alpha spans from 0.884 to 0.937, both exceeding the 0.70 benchmark for internal consistency (Nunnally & Bernstein, 1994). These metrics confirm the measurement model's reliability and validity.

Construct	Items	Outer Loadings	AVE	CR	Cronbach's Alpha
GHRM	9	0.707–0.838	0.581	0.913	0.909
ER	5	0.771–0.893	0.738	0.913	0.910
KS	9	0.754–0.870	0.666	0.940	0.937
IC	4	0.813–0.893	0.742	0.888	0.884
MF	6	0.782–0.878	0.680	0.911	0.906

Table 4: Construct Reliability and Validity

Discriminant validity was assessed using the Fornell-Larcker criterion and HTMT ratio (Tables 5 and 6). All constructs met the Fornell-Larcker and HTMT thresholds, confirming distinctiveness among variables (Henseler et al., 2015).

Construct	ER	GHRM	IC	KS	MF
ER	0.859				
GHRM	0.767	0.762			
IC	0.732	0.774	0.862		
KS	0.497	0.595	0.562	0.816	
MF	0.748	0.745	0.717	0.489	0.825

Table 5: Fornell-Larcker Criterion

Construct	ER	GHRM	IC	KS	MF
ER		0.840	0.811	0.529	0.813
GHRM			0.856	0.636	0.806
IC				0.612	0.789
KS					0.518

Table 6: HTMT Ratio

Direct Hypothesis Testing

As shown in Table 7, Smart PLS analysis confirmed significant relationships between several constructs. KS ($\beta = 0.304$, $t = 6.337$, $p < 0.001$) and MF ($\beta = 0.596$, $t = 13.218$, $p < 0.001$) positively influence GHRM, supporting H1 and H2. GHRM ($\beta = 0.468$, $t = 7.523$, $p < 0.001$), KS ($\beta = 0.136$, $t = 3.394$, $p = 0.001$), and MF ($\beta = 0.302$, $t = 5.943$, $p < 0.001$) significantly impact IC, supporting H3, H4, and H5. Additionally, GHRM ($\beta = 0.345$, $t = 4.379$, $p < 0.001$), MF ($\beta = 0.324$, $t = 4.400$, $p < 0.001$), and IC ($\beta = 0.231$, $t = 3.228$, $p = 0.001$) positively influence ER, supporting H6, H8, and H9. However, KS does not significantly impact ER directly ($\beta = 0.003$, $t = 0.080$, $p = 0.936$), rejecting H7.

Hypothesis	Path	B	t-Value	p-Value	Outcome
H1	KS → GHRM	0.304	6.337	<0.001	Supported
H2	MF → GHRM	0.596	13.218	<0.001	Supported
H3	GHRM → IC	0.468	7.523	<0.001	Supported
H4	KS → IC	0.136	3.394	0.001	Supported
H5	MF → IC	0.302	5.943	<0.001	Supported
H6	GHRM → ER	0.345	4.379	<0.001	Supported
H7	KS → ER	0.003	0.080	0.936	Not Supported
H8	MF → ER	0.324	4.400	<0.001	Supported
H9	IC → ER	0.231	3.228	0.001	Supported

Table 7: Direct Effects

Mediating Effects of IC

Mediation analysis revealed that IC partially mediates the relationships between GHRM and ER ($\beta = 0.108$, $t = 3.000$, $p = 0.003$) and MF and ER ($\beta = 0.070$, $t = 2.866$, $p = 0.004$), supporting H10 and H12. Additionally, IC fully mediates the relationship between KS and ER ($\beta = 0.031$, $t = 2.270$, $p = 0.023$), supporting H11. These findings emphasize the critical role of IC in fostering an environment that enhances retention.

Hypothesis	Relationship	Indirect Effect	t-Value	p-Value	Result	Comment
H10	GHRM → ER	0.345	4.379	0.000	Supported	Partial mediation
	IC → ER	0.231	3.228	0.001	Supported	
	GHRM → IC→ ER	0.108	3.000	0.003	Supported	
H11	KS → ER	0.003	0.080	0.936	Not supported	Full mediation
	IC → ER	0.231	3.228	0.001	Supported	
	KS → IC → ER	0.031	2.270	0.023	supported	
H12	MF→ ER	0.324	4.400	0.000	Supported	Partial mediation

Table 8: Mediating Effects of IC

fsQCA Results and Proposition Testing

The fsQCA method was employed to examine how GHRM, KS, MF, and IC influence ER among hotel employees in major cities in Vietnam. This approach, based on Ragin's (2017) four-step process, enables the identification of sufficient configurations leading to high ER.

Step 1: Calibration of Variables

The outcome (ER) and conditions (GHRM, KS, MF, IC) were calibrated into fuzzy membership scores. A score of 1 indicated that the calibrated variable's value was equal to or exceeded the 0.5 threshold, while a score of 0 denoted values below this threshold (Ragin et al., 2004). This

step ensured consistency in evaluating the data for further analysis.

Step 2: Truth Table Analysis

A truth table was generated to examine all possible configurations of the calibrated variables. Each configuration was assigned a "number" reflecting the count of empirical cases it represented, along with the associated raw, proportional reduction in inconsistency (PRI), and symmetric (SYM) consistency values. Table 9 summarizes these results:

f_GHRM	f_KS	f_IC	f_MF	Number	Raw Consistency	PRI Consistency	SYM Consistency
1	1	1	1	260 (95%)	0.972876	0.962425	0.991
1	1	1	0	4 (97%)	0.999346	0.996334	1.0
1	0	1	1	2 (98%)	0.997418	0.989717	0.989717
0	1	1	1	2 (98%)	0.989013	0.923602	0.956215
0	1	0	0	1 (99%)	0.998579	0.946236	1.0
0	0	0	1	1 (99%)	1.0	1.0	1.0

Table 9: Truth Table

Configurations with no corresponding cases (remainders) or those represented by only one case were excluded due to insufficient data for meaningful analysis. A coverage threshold of 80% was applied, ensuring that retained configurations accounted for at least 80% of cases.

Step 3: Consistency Threshold

Consistency measures how reliably a configuration leads to the outcome. Configurations with consistency scores below 0.75 were considered inconsistent (Ragin, 2008). To ensure robust causal relationships, this study applied a higher consistency threshold of 0.918. Configurations meeting or exceeding this threshold were deemed sufficient conditions for ER.

Step 4: fsQCA Output

The fsQCA analysis reveals three distinct pathways (Models 1, 2, and 3) that are sufficient conditions for achieving high employee retention in the hotel industry. Each model highlights different combinations of factors, demonstrating the multifaceted nature of causal relationships in this context. By examining these pathways, we gain valuable insights into how various factors interact to influence retention outcomes. The three models shown in Table 10 are sufficient to increase employee retention in 93.8% of cases. These combinations cover 97.1% of cases

Sets	Raw Coverage	Unique Coverage	Consistency
Model 1: f_GHRM*f_IC	0.956984	0.0642259	0.946545
Model 2: f_GHRM*f_KS*f_MF	0.898336	0.0053668	0.968786
Model 3: f_KS*f_IC*f_MF	0.900744	0.00798643	0.967065
Solution coverage: 0.971097			

Solution consistency: 0.938079

Table 10. Fsqca Output: Intermediate Solution

Note: *, logical AND; ~, logical negation.

Model 1 **(**f_GHRM*f_IC**)** combines Green Human Resource Management (f_GHRM) and Innovative Climate (f_IC) as critical drivers of employee retention. This model shows a raw coverage of 0.956984, meaning it explains approximately 95.7% of the cases where high retention is observed. Furthermore, its unique coverage of 0.0642259 indicates that 6.4% of the retention outcomes are explained exclusively by this configuration. With a consistency score of 0.946545, this pathway reliably links these factors to the outcome. Therefore, this model emphasizes the importance of integrating sustainable HR practices with a culture of innovation to enhance employee loyalty and satisfaction.

Model 2 **(**f_GHRM*f_KS*f_MF**)** introduces a combination of Green HRM (f_GHRM), Knowledge Sharing (f_KS), and Mindfulness (f_MF). This configuration accounts for 89.8% of the cases, as shown by its raw coverage of 0.898336. However, its unique coverage of 0.0053668 suggests significant overlap with other pathways. Despite this, the model demonstrates strong reliability with a consistency score of 0.968786. This pathway highlights the need for organizations to foster an environmentally sustainable work environment, promote open knowledge-sharing practices, and prioritize employee mindfulness to create a well-rounded and engaging workplace.

Model 3 **(**f_KS*f_IC*f_MF) focuses on the interplay of Knowledge Sharing (f_KS), Innovative Climate (f_IC), and Mindfulness (f_MF) as key factors influencing retention. This model has a raw coverage of 0.900744, explaining 90.1% of the cases, while its unique coverage of 0.00798643 reveals a small proportion of outcomes exclusively attributed to this configuration. With a consistency score of 0.967065, this model highlights the importance of combining a culture of innovation, collaborative practices, and mental well-being to retain employees effectively.

By linking sustainability, collaboration, innovation, and mindfulness, these findings suggest that hotel managers can design effective strategies to address retention challenges. Ultimately, adopting these configurations can foster a more committed and stable workforce, ensuring long-term success in the hospitality industry.

Necessary and Sufficient Conditions

The fsQCA analysis identified key configurations of GHRM, KS, MF, and IC as both necessary and sufficient for achieving high Employee Retention (ER). Table 11 highlights the necessary conditions, showing high consistency and coverage values.

Conditions	**Consistency**	**Coverage**
f_GHRM + f_IC	0.990831	0.901884
f_GHRM + f_KS + f_MF	0.992943	0.900586
f_KS + f_IC + f_MF	0.994296	0.902816

Table 11: Necessary Conditions

Comparison of Findings from Smart PLS and fsQCA

Direct vs. Configurational Insights

The divergence in methodology between Smart PLS and fsQCA offers complementary but distinct insights into ER. While Smart PLS evaluates linear relationships between variables, fsQCA reveals how combinations of factors are sufficient to achieve high retention outcomes. This methodological contrast uncovers deeper insights, particularly in understanding nuanced relationships like the role of KS and IC**.**

Knowledge Sharing: Direct Weakness, Configurational Strength

- Smart PLS Findings**:** KS does not show a direct, significant impact on ER, as indicated by a path coefficient close to zero (0.003, p = 0.936). This is surprising, given KS's traditionally understood role in fostering collaboration and engagement. The finding suggests that KS, in isolation, may not directly enhance retention outcomes.

- fsQCA Findings**:** KS emerges as a vital component in Models 2 (f_GHRM*f_KS*f_MF) and 3 (f_KS*f_IC*f_MF), where it contributes to retention when combined with other factors like IC and MF. This indicates that KS's influence is conditional—it becomes impactful when part of a broader ecosystem promoting collaboration and innovation.

The contrast underscores a key insight: KS by itself does not suffice to retain employees but serves as a foundational enabler in environments that value innovation (IC) and mindfulness (MF). This highlights the necessity for organizations to embed KS within a culture of creativity and mental well-being rather than treating it as a standalone strategy.

Innovative Climate: The Central Mediator

- Smart PLS Findings: IC partially mediates the relationship between GHRM, MF, and ER. For example, GHRM influences ER directly but is further amplified through IC (indirect effect coefficient = 0.108, p = 0.003). Similarly, MF's impact on ER is enhanced through IC, emphasizing its role as a critical intermediary in fostering retention.

- fsQCA Findings: IC is consistently present across all three configurational models, whether paired with GHRM alone (Model 1), with GHRM, KS, and MF (Model 2), or with KS and MF (Model 3). IC's presence in every sufficient pathway reinforces its centrality in creating high retention outcomes.

Both analyses converge on IC's importance, but fsQCA adds an interesting nuance: IC not only acts as a mediator but also becomes an indispensable factor in all effective retention strategies. This suggests that organizations must actively cultivate an innovative workplace climate, as it serves as a unifying mechanism through which other practices—GHRM, KS, and MF—achieve their full potential.

Mindfulness: Direct and Indirect Influence

- Smart PLS Findings**:** MF has both direct (path coefficient = 0.324, p < 0.001) and indirect impacts (mediated by IC) on ER, demonstrating its dual role. Employees with higher mindfulness are better at managing stress, maintaining focus, and contributing to innovation, all of which enhance retention.

- fsQCA Findings**:** MF features prominently in Models 2 and 3, where it interacts with GHRM, KS, and IC. Its presence across these configurations suggests that mindfulness is a versatile

factor that enhances the efficacy of other practices.

MF's role is particularly intriguing because it transcends traditional HR interventions. The findings indicate that mindfulness-based practices—such as stress management training, mindful communication, and focus enhancement—should be integrated into broader strategies like GHRM and IC. This positions MF not only as a direct driver of retention but also as an enhancer of collaborative and innovative work climates.

Green HRM Practices: A Foundation for Retention

- Smart PLS Findings**:** GHRM practices significantly influence ER directly (path coefficient = 0.345, $p < 0.001$) and indirectly through IC. This aligns with the idea that sustainable HR practices create a supportive and engaging work environment, reducing turnover intentions.

- fsQCA Findings**:** GHRM is a critical component of Models 1 and 2, either combined with IC or as part of a broader configuration including KS and MF. This indicates its foundational role in fostering retention, though fsQCA highlights that its impact is amplified when paired with other factors.

The consistent importance of GHRM underscores its strategic significance in retention. However, the configurational perspective of fsQCA suggests that GHRM's effectiveness is context-dependent; for example, pairing GHRM with IC (Model 1) or combining it with KS and MF (Model 2) yields stronger results. This finding encourages organizations to view GHRM as part of an integrated strategy rather than a standalone intervention.

Configurational Redundancy and Overlap

fsQCA's findings reveal overlapping pathways with substantial raw coverage but limited unique coverage:

- Model 1 (f_GHRM*f_IC) explains 95.7% of cases but has a unique coverage of only 6.4%.

- Models 2 and 3 (f_GHRM*f_KS*f_MF and f_KS*f_IC*f_MF) have similarly high raw coverage (89.8% and 90.1%) but minimal unique coverage.

This overlap highlights that most retention outcomes are achieved through combinations of these factors, rather than relying on any one pathway. It reflects the multifaceted nature of retention strategies, suggesting that organizations can adapt configurations to their unique contexts without sacrificing effectiveness.

Interesting Divergences: The KS Paradox

One of the most intriguing findings is the KS paradox: its direct influence on ER is negligible in Smart PLS but critical in fsQCA models. This disparity invites a deeper reflection:

- Could the lack of direct influence in Smart PLS indicate that KS alone does not resonate with employees unless integrated into a broader organizational culture?

- Does its role in fsQCA imply that organizations need to frame KS initiatives as part of a collaborative and innovative climate to maximize its impact?

This paradox emphasizes the importance of understanding how individual practices like KS align with organizational culture and broader strategic objectives.

Implications and Conclusion

Implications for Theory and Practice

This study provides both theoretical and practical implications for understanding employee retention, particularly in the high-end hotel industry. From a theoretical perspective**,** the findings contribute to retention research by integrating insights from Smart PLS and fsQCA methodologies. Smart PLS highlights linear relationships and the mediating effects of key variables, such as IC, in the relationship between GHRM, MF, KS, and ER. It confirms the centrality of IC as a mediator that amplifies the influence of GHRM and MF on ER, which aligns with prior studies (e.g., Foss et al., 2015; Donate & de Pablo, 2015). Furthermore, the fsQCA analysis provides a novel perspective by demonstrating how different configurations of these variables lead to high ER. This combinatorial approach underscores the multifaceted nature of causality, emphasizing that no single factor is sufficient in isolation. For example, the role of KS, which shows no direct effect on ER in Smart PLS, emerges as significant within configurations involving IC and MF. This insight bridges gaps in the literature, offering a deeper understanding of KS's conditional role and reinforcing the importance of IC in retention outcomes. Together, these findings enrich retention theory by highlighting the interplay of sustainability, innovation, and mindfulness as critical components of successful HR practices.

From a practical perspective, the findings emphasize the need for integrated and multifaceted strategies to enhance employee retention. Managers should prioritize creating an innovative work environment, as IC consistently emerges as a critical driver of retention across both methodologies. This can be achieved through initiatives that foster creativity, collaboration, and problem-solving, such as cross-functional projects, and innovation-focused training programs. Moreover, the role of mindfulness in improving retention suggests that organizations should invest in well-being programs, such as stress management workshops and mindfulness training, to enhance employee focus and satisfaction. Additionally, while KS does not directly impact ER, it plays a pivotal role when paired with IC and MF. This finding suggests that KS initiatives—such as knowledge-sharing platforms and team-building activities—should be embedded within a culture of innovation and collaboration to maximize their impact. The study also reaffirms the importance of GHRM practices in retention strategies. By implementing sustainable HR policies, such as green training programs and eco-friendly practices, organizations can create a supportive and engaging work environment that promotes employee loyalty. These insights collectively underscore the importance of adopting holistic retention strategies that integrate GHRM, IC, KS, and MF into a cohesive framework.

Conclusion

This research provides a comprehensive understanding of employee retention dynamics in the Vietnamese high-end hotel industry by leveraging Smart PLS and fsQCA methodologies. The Smart PLS analysis uncovers direct and mediated relationships between GHRM, IC, MF, KS, and ER, while the fsQCA results reveal how combinations of these factors contribute to retention outcomes. Both approaches converge on the centrality of IC, which serves as a mediator in Smart PLS and a critical component of all sufficient configurations in fsQCA. This underscores the importance of fostering an innovative climate as a linchpin for employee retention.

Interestingly, the study highlights the conditional role of KS. While KS does not directly influence ER in Smart PLS, its significance in fsQCA configurations demonstrates its impact when combined with IC and MF. This finding reinforces the need for organizations to

contextualize KS initiatives within a broader framework of innovation and mindfulness. Additionally, the dual role of MF—as both a direct driver of ER and an enhancer of other factors such as IC and KS—further underscores its strategic value.

In conclusion, the study demonstrates that achieving high retention requires a multidimensional approach that integrates GHRM, IC, MF, and KS into cohesive strategies promoting sustainability, innovation, and well-being. These findings provide actionable insights for hospitality managers seeking to build resilient and committed workforces. Future research should examine the generalizability of these findings across other industries and regions and explore the mechanisms through which KS interacts with IC to enhance retention. By focusing on the interplay of sustainability, collaboration, and mindfulness, organizations can foster an engaging and innovative workplace that supports long-term employee loyalty in a competitive and dynamic industry.

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