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Digitalization and Hospitality Employee Turnover Intentions: A Sequential Structural Model of Technostress and Psychological Contract Breach

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Abstract

Purpose *– Driven by competitive pressures, the global hospitality industry is undergoing an aggressive digital transformation. While management frequently praises this digital pivot for optimizing organizational performance, the human capital driving frontline service delivery remains under considerable psychological strain. Grounded in the complementary Job Demands-Resources (JD-R) and Conservation of Resources (COR) theories, this study investigates the psychological mechanisms linking digitalization to workforce withdrawal in high-touch hospitality environments. Specifically, the study develops and tests a sequential structural framework explaining how digital job demands and AI disruption threats influence turnover intentions through Technostress, psychological contract breach, surface acting, and job burnout.*

Methodology *– A quantitative cross-sectional survey was conducted among 385 full-time frontline hospitality employees working in international chain hotels and premium fine-dining establishments across major tourism destinations in Indonesia. Respondents were selected using purposive sampling and reported regular exposure to advanced digital systems and automated workflows. Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM).*

Findings *– The results support all ten hypothesized direct relationships. Digital Job Demands significantly increase Technostress, whereas AI Disruption Threat significantly increases Psychological Contract Breach and Surface Acting. Technostress further contributes to Psychological Contract Breach and Job Burnout. In turn, Psychological Contract Breach and Surface Acting significantly intensify Job Burnout, while Psychological Contract Breach, Surface Acting, and Job Burnout positively influence Turnover Intentions. The findings identify Psychological Contract Breach as a critical relational mechanism and Job Burnout as a key explanatory factor linking technology-related pressures to employee withdrawal intentions.*

Originality/value *– This study extends existing Technostress and turnover literature by integrating cognitive (Psychological Contract Breach) and emotional (Surface Acting) mechanisms within a unified sequential structural framework. By combining JD-R and COR perspectives, the study provides a more comprehensive explanation of how digital transformation influences employee retention and offers practical insights for hospitality organizations seeking to balance technological innovation with workforce sustainability.*

Keywords: *Digital Job Demands; AI Disruption Threat; Technostress; Psychological Contract Breach; Surface Acting; Job Burnout; Turnover Intentions; Hospitality Employees*

INTRODUCTION

The global hospitality industry is undergoing an unprecedented paradigm shift driven by digital transformation. Technologies ranging from advanced information technology adoption and digital menu systems to Smart Technologies, Artificial Intelligence, Robotics, and Algorithms (STARA) are now deeply woven into daily hotel and restaurant operations (Fayyad et al., 2025; Tseng & Liu, 2026). While management frequently praises this digital pivot for optimizing organizational performance and personalizing service delivery, the human capital driving the frontline remains under massive psychological strain (Leong et al., 2025; Tseng & Liu, 2026). Emerging empirical evidence highlights a critical counter-effect: digital tools meant to support workers often evolve into structural job demands that disrupt their well-being and trigger immense vulnerability (Demirovic-Bajrami et al., 2026; Zhang et al., 2026). Consequently, hotels are experiencing chronic workforce attrition, with employees increasingly intending to leave their jobs due to technology-induced distress (Gusti et al., 2025; Shin & Kang, 2026). Understanding the microfoundations of how digitalization shapes these withdrawal behaviors has therefore become an urgent priority for both organizational scholars and industry practitioners (Demirovic-Bajrami et al., 2026; Gusti et al., 2025). This concern is consistent with long-standing organizational behavior research, which suggests that workplace stressors, perceived organizational support, and resource depletion play critical roles in shaping employee attitudes and withdrawal behaviors (Bakker & Demerouti, 2007; Hobfoll, 1989; Mobley, 1977).

This phenomenon is particularly problematic due to the high-touch nature of hospitality operations. Frontline employees are historically bound by social and emotional contracts, relying on authentic human interaction to co-create value with guests. However, hyperconnectivity, online reviews, and 24/7 digital communication channels have introduced intense digital job demands (Demirovic-Bajrami et al., 2026). Kiosks, automated platforms, and electronic monitoring strip workers of operational autonomy, forcing them to adjust to fast-paced, machine-driven workflows. When technological integration is poorly executed or rushed, it creates deep role ambiguity and information overload, giving rise to acute Technostress (Ertaş et al., 2026). Workers are increasingly caught in a structural trap: they must maintain high-quality service delivery to consumers while simultaneously navigating complex, stressful backend systems (Ertaş et al., 2026; Leong et al., 2025).

Beyond localized work stress, the sudden shift toward digital and algorithmic systems threatens the foundational bond between employees and employers. In five-star properties and high-end service environments, frontline staff often operate under an implicit psychological contract—an unwritten expectation that their emotional investment and loyalty will be rewarded with long-term job security and career development. Rushing into automated solutions and AI platforms violates this mutual understanding, sparking a pervasive sense of threat from AI disruption (Leong et al., 2025; SALAMA et al., 2025). Employees frequently view aggressive automation as a sign that the organization values tech investments over human welfare, directly leading to a perceived psychological contract breach (SALAMA et al., 2025). This feeling of institutional betrayal, combined with ongoing Technostress, leaves workers feeling disposable, leading to sharp declines in job satisfaction, extreme emotional exhaustion, and a strong desire to leave the industry entirely (Ertaş et al., 2026; Gusti et al., 2025; SALAMA et al., 2025).

Despite growing interest in hospitality technology, a critical gap in the literature remains regarding the specific psychological pathways linking technological pressure to workforce withdrawal. Existing research has focused heavily on the direct, baseline relationships between technological adoption and employee turnover, or on Technostress as an isolated predictor of emotional exhaustion (Ertaş et al., 2026; Tseng & Liu, 2026). Much of the existing literature conceptualizes turnover intentions as a direct consequence of technology-related stress, paying limited attention to the intervening cognitive and emotional mechanisms through which digital pressures gradually influence employee withdrawal decisions. Very few studies have looked at

the multi-layered, sequential paths that link external digital demands to cognitive and emotional structural breaches, and ultimately to employee withdrawal intentions. Crucially, the connection between technostress and psychological contract breaches—and how their combination forces employees into superficial emotional labor such as surface acting—has not been fully explored in sequential structural frameworks within the hospitality landscape (Başer et al., 2025; SALAMA et al., 2025). Moreover, previous hospitality studies have rarely examined psychological contract breach and surface acting simultaneously, despite evidence suggesting that cognitive evaluations of organizational treatment and emotional regulation strategies may operate together during periods of organizational change and technological disruption.

To address these gaps, this study constructs a seven-variable structural equation model grounded in the Job Demands-Resources (JD-R) theory and Conservation of Resources (COR) theory. We treat digitalization as a key structural job demand that triggers an escalating loss of psychological resources. By developing and validating a sequential structural framework, this paper makes three distinct contributions. First, unlike prior technostress-turnover studies that primarily focus on direct or single-mediator relationships, this study develops a sequential explanatory framework that captures how digital pressures are translated into turnover intentions through interconnected cognitive, emotional, and resource-depletion processes. Second, we connect cognitive evaluations (psychological contract breach) with emotional adjustments (surface acting), mapping out how technology-induced stress forces employees to fake corporate hospitality while experiencing severe internal burnout. Third, by integrating JD-R and COR theories within a single model, we demonstrate how digital job demands and AI disruption threats initiate a resource-loss spiral that simultaneously undermines organizational trust and emotional authenticity. Finally, we provide a unified, empirical framework grounded in recent data from international hospitality markets, offering actionable insights for hotel managers seeking to balance digital transformation with talent retention.

LITERATURE REVIEW

Digital Job Demands and Technostress

The rapid digitalization of hospitality work environments has fundamentally altered the structural nature of workplace demands. Under the Job Demands-Resources (JD-R) framework, technological advancements are not merely neutral operational assets; instead, they function as prominent job demands that actively deplete employees' energetic resources when adaptation requirements exceed available coping capacities (Schaufeli & Bakker, 2004). In modern hotel and restaurant operations, digital transformation is manifested through hyperconnectivity, electronic monitoring systems, integrated property management platforms, automated service interfaces, and continuous online customer engagement (Demirovic-Bajrami et al., 2026; Tseng & Liu, 2026). As a result, frontline hospitality employees are increasingly exposed to escalating digital job demands that require constant information processing and rapid adaptation to technological change.

The relationship between digital job demands and Technostress is rooted in the growing complexity of service delivery processes. Frontline employees are expected to manage multiple digital systems while simultaneously maintaining high-quality customer interactions (Tseng & Liu, 2026). Excessive digital workloads often reduce employees' operational autonomy and create uncertainty regarding work responsibilities and performance expectations (Ertaş et al., 2026). For example, frequent digital notifications, system updates, and poorly integrated technological platforms may generate techno-overload and techno-complexity, both recognized antecedents of Technostress (Ertaş et al., 2026; Tarafdar et al., 2007). Because hospitality employees operate in environments characterized by immediate service expectations and limited recovery

opportunities, prolonged exposure to these demands may significantly increase technology-related strain. Therefore, the following hypothesis is proposed:

H1: Digital Job Demands exert a significant positive effect on Technostress.

AI Disruption Threat and Psychological Contract Breach

Beyond operational complexity, digital transformation introduces broader concerns regarding job security and long-term career prospects. The increasing adoption of Smart Technologies, Artificial Intelligence, Robotics, and Algorithms (STARA) has intensified employees' perceptions of professional vulnerability, particularly in service industries where technological systems increasingly perform tasks previously dependent on human labor (Başer et al., 2025; Leong et al., 2025; Shin & Kang, 2026). In hospitality organizations, employees may perceive AI-driven technologies as potential substitutes rather than supportive tools, thereby creating uncertainty regarding future employment opportunities and career stability (Jianu et al., 2025).

According to the Conservation of Resources (COR) theory, individuals seek to protect valued resources such as job security, professional identity, and organizational support (Hobfoll, 1989). When employees perceive that technological investments may reduce the organization's reliance on human labor, they may interpret these developments as a threat to those resources. Such perceptions can undermine confidence in the organization's commitment to employee welfare and long-term development. Psychological Contract Theory further suggests that employees hold implicit expectations regarding mutual obligations, organizational support, and employment continuity (Rousseau & Parks, 1993). If AI implementation is perceived as prioritizing efficiency over employee well-being, workers may conclude that these expectations have been violated, resulting in a perceived Psychological Contract Breach (SALAMA et al., 2025). Recent hospitality studies similarly suggest that technology-driven job insecurity weakens organizational trust and increases feelings of institutional betrayal (Leong et al., 2025; SALAMA et al., 2025). Consequently, employees who perceive a greater AI disruption threat are more likely to believe that the organization has failed to fulfill its unwritten obligations. Therefore, the following hypothesis is proposed:

H2: AI Disruption Threat exerts a significant positive effect on Psychological Contract Breach.

AI Disruption Threat and Surface Acting

The threat of AI disruption may also influence how employees regulate their emotions during service encounters. Frontline hospitality employees are expected to consistently display positive emotions, attentiveness, and enthusiasm regardless of their internal emotional state (Grandey, 2000; Wang et al., 2026). However, concerns regarding technological displacement may generate anxiety, insecurity, and uncertainty that conflict with these emotional display expectations. According to Emotional Labor Theory, employees often engage in surface acting when they suppress genuine emotions and display organizationally desired expressions that do not reflect their actual feelings (Grandey, 2000) (Hochschild, 2003). In technology-intensive work environments, employees may continue to provide positive guest interactions while internally experiencing concerns regarding AI-driven replacement and career uncertainty. This discrepancy between felt emotions and displayed emotions creates emotional dissonance, increasing reliance on surface acting as a coping mechanism. Previous studies have shown that workplace insecurity and organizational uncertainty encourage employees to conceal negative emotions in order to maintain professional performance and service quality (Elshawesh & Wada, 2026; Wang et al., 2026). Consequently, AI disruption threats may increase employees' reliance on surface acting to manage technology-related insecurity while maintaining organizational display rules. Therefore, the following hypothesis is proposed:

H3: AI Disruption Threat exerts a significant positive effect on Surface Acting.

Technostress and Psychological Contract Breach

While Technostress is commonly examined as a source of employee strain, its implications extend beyond immediate psychological discomfort and may influence employees' perceptions of their relationship with the organization. Under the Job Demands-Resources (JD-R) framework, employees expect organizations to provide adequate resources that enable them to cope with evolving workplace demands (Schaufeli & Bakker, 2004). In technology-intensive hospitality environments, these resources may include technical training, managerial support, system usability, and sufficient time to adapt to new digital processes. When such resources are perceived as inadequate, employees may interpret organizational actions as a failure to uphold implicit obligations.

Psychological Contract Theory suggests that employees develop unwritten expectations regarding organizational support, fairness, and reciprocal commitment (Rousseau & Parks, 1993). Persistent Technostress resulting from excessive digital workloads, technological complexity, and continuous connectivity may signal that the organization prioritizes operational efficiency over employee well-being (Demirovic-Bajrami et al., 2026; Tseng & Liu, 2026). Consequently, employees may perceive that the organization has failed to provide the support necessary to navigate digital transformation successfully. Recent hospitality research indicates that technology-related stress can weaken organizational trust and increase perceptions of institutional neglect, particularly when employees feel unsupported during periods of technological change (Ertaş et al., 2026; SALAMA et al., 2025). As employees experience ongoing resource depletion without adequate organizational assistance, they become increasingly likely to perceive a breach of the psychological contract. Therefore, the following hypothesis is proposed:

H4: Technostress exerts a significant positive effect on Psychological Contract Breach.

Technostress and Job Burnout

Job Burnout represents one of the most frequently documented consequences of prolonged workplace stress. According to the Conservation of Resources (COR) theory, individuals experience burnout when valued psychological, emotional, and physical resources are continuously depleted without adequate opportunities for replenishment (Hobfoll, 1989, 2001). In hospitality environments, Technostress is a persistent drain on resources, as employees must continually adapt to technological changes while maintaining high service standards. The hospitality industry presents a particularly challenging context, as frontline employees must manage both customer expectations and technology-related demands. Frequent system updates, complex digital platforms, constant connectivity, and technology-induced work interruptions create additional cognitive burdens that intensify emotional exhaustion (Ertaş et al., 2026) (Seshasai and Balaji, 2026). As employees invest increasing amounts of energy in managing technological demands, fewer resources remain available for effective service delivery and emotional recovery. Previous studies have consistently demonstrated positive associations between Technostress and burnout outcomes across technology-intensive service settings (Ertaş et al., 2026; SALAMA et al., 2025). Accordingly, prolonged exposure to technology-related strain is expected to increase employees' levels of emotional exhaustion and burnout. Therefore, the following hypothesis is proposed:

H5: Technostress exerts a significant positive effect on Job Burnout.

Psychological Contract Breach and Job Burnout

Psychological Contract Breach represents employees' perception that the organization has failed to fulfill its implicit obligations and commitments (Rousseau & Parks, 1993). Such perceptions often trigger disappointment, frustration, and feelings of betrayal, all of which consume valuable emotional and cognitive resources. According to COR theory, the loss of socio-

emotional resources is a critical precursor to burnout because employees must expend additional effort to cope with uncertainty and diminished organizational trust (Hobfoll, 2001). In hospitality settings, frontline employees frequently invest substantial emotional energy in supporting organizational goals and maintaining customer satisfaction. When they perceive that organizational commitments have not been honored, employees may begin to question the value of their contributions and the fairness of the employment relationship (SALAMA et al., 2025). This cognitive burden can intensify emotional exhaustion and accelerate the onset of burnout symptoms. Empirical evidence suggests that psychological contract breach is strongly associated with burnout outcomes because it undermines employees' sense of security, belonging, and organizational support (Rousseau & Parks, 1993; SALAMA et al., 2025). Consequently, employees who perceive greater contract breach are expected to report higher levels of burnout. Therefore, the following hypothesis is proposed:

H6: Psychological Contract Breach exerts a significant positive effect on Job Burnout.

Surface Acting and Job Burnout

Surface acting occurs when employees suppress their genuine emotions and display organizationally desired emotions that do not accurately reflect their internal feelings (Grandey, 2000; Hochschild, 2003). Although surface acting enables employees to meet service expectations, it requires substantial emotional regulation effort and often generates emotional dissonance between felt and displayed emotions. Hospitality employees routinely engage in emotional labor to maintain positive guest experiences. However, prolonged reliance on surface acting can be psychologically taxing because employees must continuously monitor and regulate their emotional expressions while concealing negative feelings (Wang et al., 2026). This ongoing emotional effort consumes valuable psychological resources and limits opportunities for emotional recovery. Prior research consistently identifies surface acting as an important antecedent of emotional exhaustion and burnout because it increases strain and reduces emotional authenticity (Grandey, 2000; Wang et al., 2026). Accordingly, employees who engage more frequently in surface acting are likely to experience higher levels of burnout. Therefore, the following hypothesis is proposed:

H7: Surface Acting exerts a significant positive effect on Job Burnout.

Psychological Contract Breach and Turnover Intentions

Turnover intention refers to an employee's conscious willingness to leave the organization and seek alternative employment opportunities. Psychological Contract Theory suggests that when employees perceive that organizational obligations have been violated, they often reevaluate their commitment to the employment relationship (Rousseau & Parks, 1993). As trust deteriorates, employees become increasingly likely to consider withdrawing from the organization. In hospitality settings, perceptions of psychological contract breach may be particularly damaging because service delivery relies heavily on employee commitment, engagement, and organizational identification. Employees who believe that management has prioritized technological efficiency over employee welfare may question the long-term viability of remaining with the organization (SALAMA et al., 2025). Previous studies have demonstrated that psychological contract breach is a significant predictor of turnover intentions because it undermines organizational commitment and employee loyalty (SALAMA et al., 2025; Shin & Kang, 2026). Therefore, the following hypothesis is proposed:

H8: Psychological Contract Breach exerts a significant positive effect on Turnover Intentions.

Surface Acting and Turnover Intentions

Although surface acting is often necessary to meet hospitality service standards, sustained emotional regulation can create significant psychological strain. Employees who frequently

suppress their genuine emotions may experience emotional dissonance, reduced job satisfaction, and diminished attachment to their organization (Grandey, 2000). Over time, the effort required to maintain emotionally demanding service roles may lead employees to reassess the desirability of their current employment situation. Studies have shown that persistent emotional labor demands increase withdrawal cognitions and turnover intentions, particularly when employees perceive limited opportunities for emotional recovery (Elshawesh & Wada, 2026; Wang et al., 2026). As a result, employees who engage more frequently in surface acting may become increasingly inclined to consider leaving their organization. Therefore, the following hypothesis is proposed:

H9: Surface Acting exerts a significant positive effect on Turnover Intentions.

Job Burnout and Turnover Intentions

Job Burnout is widely recognized as one of the strongest predictors of employee withdrawal intentions. According to COR theory, individuals experiencing severe emotional exhaustion seek to protect their remaining psychological resources by reducing exposure to the stressors that deplete them (Hobfoll, 2001). Leaving the organization may therefore be perceived as an effective strategy for preserving personal well-being. Within hospitality organizations, burnout reduces employees' ability to maintain service quality, cope with workplace demands, and sustain positive work attitudes. Employees experiencing burnout often perceive their work environment as increasingly difficult to manage and may actively seek opportunities elsewhere (Gusti et al., 2025; Ntwakumba & Nyathela-Sunday, 2026). Extensive research has consistently demonstrated a strong positive relationship between burnout and turnover intentions across hospitality and service industries (Gusti et al., 2025; SALAMA et al., 2025). Consequently, employees experiencing higher levels of burnout are more likely to report stronger intentions to leave their organization. Therefore, the following hypothesis is proposed:

H10: Job Burnout exerts a significant positive effect on Turnover Intentions.

METHODS

Research Design and Data Collection Protocol

To empirically validate the hypothesized sequential structural model, this study adopts a deductive, quantitative survey-based research design. Frontline hospitality employees operating within international hotel chains and premium culinary establishments serve as the primary target population. This specific cohort represents a critical unit of analysis; these workers navigate the intersection of complex backend digital architectures and high-touch customer-facing interactions daily. Data collection will be operationalized through an online self-administered survey platform. Given the specific focus on digitalization, a purposive sampling technique is required. This approach guarantees that all participating respondents possess active, ongoing exposure to advanced operational systems—such as automated property management workflows, self-service kiosks, AI-driven menus, or algorithmic task allocation platforms—in their immediate workspaces.

To ensure respondent suitability, several screening criteria were applied prior to participation. Eligible respondents were required to (1) hold full-time frontline positions, (2) possess a minimum tenure of six months within their current organization, and (3) interact with digital operational systems daily as part of their work responsibilities. Screening questions placed at the beginning of the questionnaire verified these criteria and automatically excluded ineligible participants from the survey. Prior to full-scale data collection, the questionnaire underwent content validation with three hospitality academics and two industry practitioners with expertise in hospitality operations and digital transformation. A pilot test involving 30 frontline hospitality employees was subsequently conducted to evaluate item clarity, wording, contextual relevance,

and preliminary reliability. Minor wording refinements were introduced based on participant feedback before launching the final survey instrument.

To mitigate potential common method variance (CMV), several procedural remedies were implemented. The questionnaire was organized into distinct thematic sections, and a clear psychological separation was established between the independent and dependent constructs. Furthermore, respondents were assured of complete anonymity and data confidentiality, thereby reducing social desirability bias and evaluation apprehension. In addition to these procedural remedies, a post-hoc statistical assessment of CMV was conducted using Harman's single-factor test following the recommendations of (Podsakoff et al., 2003). All measurement items were entered into an unrotated exploratory factor analysis, and the results indicated that the first factor accounted for 32.76% of the total variance, well below the commonly accepted threshold of 50%. These findings suggest that common method variance is unlikely to pose a serious threat to the study's validity.

Measurement Scales and Operationalization

The operationalization of the seven latent constructs relies on multi-item reflective scales adapted from established psychometric instruments and validated within contemporary hospitality technology literature. A reflective measurement model is theoretically justified here because the indicators are treated as manifestations of the underlying constructs, meaning any shift in the latent variable will directly cause a corresponding shift in the indicator scores. Every item is captured using a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Digital Job Demands (DJD): This construct measures the perceived operational load and cognitive strain arising from continuous connectivity and system hyper-responsiveness. A three-item scale is adapted from the digital demands framework utilized by (Demirovic-Bajrami et al., 2026; Tseng & Liu, 2026). Sample items include: "I am overwhelmed by the relentless influx of real-time data from our integrated digital channels," and "Navigating multiple digital systems significantly increases my daily operational workload." AI Disruption Threat (ADT): Evaluating the existential dread and professional vulnerability associated with automation, this three-item scale is adapted from the metrics established by (Başer et al., 2025; Leong et al., 2025). Representative indicators include: "I frequently worry that advanced automated technologies will eventually replace my role in this property," and "The implementation of smart systems makes me feel professionally vulnerable."

Technostress (TS): Rooted in the classic stress-creator paradigms of (Tarafdar et al., 2007) and tailored to modern hospitality environments by (Ertaş et al., 2026; Seshasai & K.D, 2026), this three-item scale captures techno-overload and techno-complexity. Core items include: "I experience intense mental strain due to the high complexity of our workplace technologies," and "Machine-driven workflows strip me of my operational autonomy." Psychological Contract Breach (PCB): To operationalize the cognitive evaluation of institutional betrayal and eroded trust, a three-item scale is adapted from (Rousseau & Parks, 1993) and anchored empirically by (SALAMA et al., 2025). Indicators include: "I feel that management prioritizes digital and technology investments over human welfare," and "The rapid push into automation violates unwritten promises regarding long-term job security."

Surface Acting (SA): Emotional labor adjustments are measured using a three-item scale derived from (Grandey, 2000) and validated in tech-mediated settings by (Ertaş et al., 2026). This scale assesses the frequency of faking expressions to hide underlying technology-induced frustration: "I put on a superficial corporate smile for guests even when backend technical glitches irritate me," and "I fake expressions of warmth to mask my internal technological anxiety." Job Burnout (JB): This study isolates the emotional exhaustion facet of burnout resulting from continuous resource depletion. A three-item scale is adapted from (Schaufeli & Bakker, 2004) and contextualized within recent hospitality automation frameworks by (Gusti et al., 2025; SALAMA

et al., 2025). Items include: "Balancing high digital demands with strict service display rules leaves me emotionally drained," and "I feel mentally exhausted at the end of my shift due to technology-related pressures." Turnover Intentions (TI): Explicit behavioral withdrawal and the desire to leave the establishment or the wider sector are captured via a three-item scale drawing on (Gusti et al., 2025; Shin & Kang, 2026). Key items include: "Technology-induced distress makes me contemplate resigning from this establishment," and "The ongoing pressure of digital adaptation has driven my desire to exit the hospitality industry entirely."

Analytical Strategy

The empirical model will be tested using Partial Least Squares Structural Equation Modeling (PLS-SEM), a statistical approach well-suited to complex structural models involving multiple latent constructs and interrelated pathways. PLS-SEM provides exceptional analytical flexibility by handling complex model hierarchies without enforcing rigid multivariate normality assumptions on the data. The assessment will proceed through a rigorous two-stage framework: First, Measurement Model Evaluation, which establishes psychometric legitimacy. Indicator reliability will be evaluated using factor loadings, while internal consistency reliability will be assessed using Cronbach's α and Composite Reliability (CR). Convergent validity will be confirmed when the Average Variance Extracted (AVE) exceeds the threshold of 0.50. Finally, discriminant validity will be rigorously tested using the Heterotrait-Monotrait (HTMT) ratio, ensuring all values remain well below the conservative threshold of 0.85. Second, Structural Model Evaluation: Once construct integrity is confirmed, the structural pathways will be evaluated. The predictive power and stability of the model will be examined using the coefficient of determination (R^2) and predictive relevance (Q^2). To test the significance of the proposed structural relationships, a non-parametric bootstrapping procedure with 5,000 resamples was employed. The analysis focused on evaluating the magnitude, direction, and statistical significance of the hypothesized direct paths. Predictive accuracy and explanatory power were assessed using R^2, Q^2, and effect size (f^2) statistics.

RESULTS AND DISCUSSION

Profiles of Respondents

The final empirical Sample comprises N = 385 full-time frontline hospitality workers who met the pre-screening criteria of daily, active interaction with automated property systems or digital customer-facing touchpoints. Table 1 comprehensively delineates the demographic, geographic, and psychographic characteristics of the participants, reflecting a highly representative slice of contemporary service operations in major tourist economies. An evaluation of the age distribution reveals a young, digitally native frontline workforce. Specifically, 42.60% (n = 164) of the respondents fall within the 18–25 age bracket, closely followed by those aged 26–35 years at 41.82% (n = 161). Together, these two segments constitute over 84% of the total Sample, aligning perfectly with the industry reality where early-career professionals bear the brunt of tech-mediated frontline customer service. Mid-career professionals aged 36–45 years account for 13.77% (n = 53), while senior personnel aged 45+ represent a marginal 1.82% (n = 7) of the pool. Gender representation across the Sample is almost evenly balanced, with a slight female majority at 51.43% (n = 198) compared to male workers at 48.57% (n = 187).

Table 1. Profile of Respondents (N = 385)

Profile Characteristic	Classification Category	N	%
Age Group	18–25 years	164	42.60
	26–35 years	161	41.82
	36–45 years	53	13.77

Profile Characteristic	Classification Category	N	%
	Above 45 years	7	1.82
Gender	Female	198	51.43
	Male	187	48.57
Education Level	High School / Vocational	91	23.64
	Diploma (D3 / D4)	133	34.55
	Bachelor's Degree (S1)	148	38.44
	Master's Degree (S2)	13	3.38
Work Tenure	Less than 1 year	83	21.56
	1–3 years	173	44.94
	4–6 years	94	24.42
	More than 6 years	35	9.09
Geographic Region	Greater Jakarta (Jabodetabek)	139	36.10
	Bali Resort Area	109	28.31
	Surabaya Metropolitan	63	16.36
	Bandung & Central Java	47	12.21
	Other Major Cities	27	7.01
Property Type	5-Star International Chain Hotel	164	42.60
	4-Star International Chain Hotel	110	28.57
	Boutique / Luxury Resort	56	14.55
	Fine Dining Restaurant	55	14.29
Tech-Savviness	Low Tech-Savviness	57	14.81
	Medium Tech-Savviness	212	55.06
	High Tech-Savviness	116	30.13
Work Orientation	Customer-Centric / Service-Oriented	193	50.00
	Career & Growth-Oriented	134	34.81
	Transactional / Income-Oriented	59	15.19

Source: Research data, 2026

Educational attainment across the cohort is notably robust, reflecting the increasing professionalization of international hospitality programs. Formal university degrees (Bachelor's / S1) are held by 38.44% (n = 148) of the respondents, while vocational diplomas (D3/D4) comprise 34.55% (n = 133) of the group. Workers with high school or vocational high school qualifications represent 23.64% (n = 91), whereas a specialized minority holds a Master's degree (3.38%, n = 13). In terms of organizational tenure, modern hospitality's characteristic operational fluidity is clearly visible: 44.94% (n = 173) of the employees report 1–3 years of service, and 21.56% (n = 83) have been in their roles for less than a year. The remaining cohort is distributed between those with 4–6 years of tenure (24.42%, n = 94) and long-term staff with over 6 years of experience (9.09%, n = 35). Geographically, data collection was concentrated around major high-density metropolitan and luxury resort corridors. Greater Jakarta (Jabodetabek) emerged as the largest regional cluster, accounting for 36.10% (n = 139) of the Sample, while the premier leisure hub, the Bali Resort Area, contributed 28.31% (n = 109). The remaining share is split between the Surabaya Metropolitan area (16.36%, n = 63), the cultural tourism zone of Bandung & Central Java (12.21%, n = 47), and other major secondary cities (7.01%, n = 27). Regarding property types, 42.60% (n = 164) of the Sample operate within 5-star international chain hotels, and 28.57% (n = 110) are employed by 4-star chain establishments. Luxury boutique resorts (14.55%, n = 56) and premium fine-dining restaurants (14.29%, n = 55) make up the remaining institutional Sample.

To add psychometric depth, the profile incorporates two vital psychographic dimensions: tech-savviness and baseline work orientation. The vast majority of the frontline staff identify as possessing medium tech-savviness (55.06%, n = 212), while 30.13% (n = 116) report high tech-savviness. Only 14.81% (n = 57) characterize themselves as low tech-savvy, a distribution that underscores the pervasive nature of digital tool assimilation in luxury service settings. Finally, the

psychological orientation of the workforce toward their career reveals that exactly half (50.00%, n = 193) maintain a customer-centric or service-oriented focus, which relies heavily on authentic human connection. Meanwhile, 34.81% (n = 134) view their roles through a career and growth-oriented lens, leaving a transactional, income-oriented minority at 15.19% (n = 59).

Measurement Model

Indicator reliability was evaluated by examining the standardized factor loadings of each reflective item onto its designated latent variable. To establish acceptable indicator strength, items should ideally exhibit loadings of 0.708 or higher, indicating that the construct explains more than half of the indicator's variance. As shown in Table 2, all factor loadings fall within a tight, high-performing range of 0.830-0.911. The highest loading is for item ADT1 (0.911), which measures the explicit fear of role replacement by automated systems, while the lowest is for item JB3 (0.830), which assesses the loss of psychological resilience. Because every single indicator comfortably surpasses the standard threshold, no item elimination was required.

Table 2. Reflective Measurement Model Assessment

Construct & Reflective Indicators	Loadings	Reliability & Validity
AI Disruption Threat (ADT) Cronbach's α: 0.879		
ADT1: I frequently worry that advanced automated technologies will replace my role in this organization.	0.911	Composite rhoa: 0.887
ADT2: The implementation of smart technologies and algorithms makes me feel professionally vulnerable.	0.880	Composite rhoc: 0.925
ADT3: I perceive new robotic or AI updates in our property as a direct rival to human service delivery.	0.899	AVE: 0.804
Digital Job Demands (DJD) Cronbach's α: 0.880		
DJD1: I am bombarded with a relentless influx of real-time data from our integrated digital systems.	0.908	Composite rhoa: 0.894
DJD2: The constant notifications from digital channels require my immediate attention throughout the shift.	0.882	Composite rhoc: 0.925
DJD3: Navigating between multiple digital platforms significantly increases my daily workload.	0.901	AVE: 0.805
Job Burnout (JB) Cronbach's α: 0.802		
JB1: Balancing high digital demands with strict display rules leaves me completely emotionally exhausted.	0.869	Composite rhoa: 0.804
JB2: I feel physically and mentally drained at the end of every shift due to technology-induced stress.	0.840	Composite rhoc: 0.883
JB3: I no longer possess the psychological resilience to meet either guest expectations or technical updates effectively.	0.830	AVE: 0.716
Psychological Contract Breach (PCB) Cronbach's α: 0.823		
PCB1: I feel the organization values technology investments far more than human welfare.	0.865	Composite rhoa: 0.825
PCB2: The rapid introduction of automation violates the unwritten promise of long-term job security.	0.872	Composite rhoc: 0.895
PCB3: Management has failed to provide adequate support and training during critical digital transitions.	0.842	AVE: 0.739
Surface Acting (SA) Cronbach's α: 0.839		
SA1: I have to put on a superficial corporate smile for guests even when I am frustrated by technical glitches.	0.866	Composite rhoa: 0.840
SA2: I fake expressions of warmth and attentiveness to hide my internal technical anxiety.	0.866	Composite rhoc: 0.903
SA3: I suppress my true feelings of panic or irritation when digital systems fail in front of customers.	0.878	AVE: 0.757

Construct & Reflective Indicators	Loadings	Reliability & Validity
Turnover Intentions (TI) Cronbach's α: 0.818		
TI1: I frequently think about resigning from this establishment due to technology-induced distress.	0.882	Composite rhoa: 0.836
TI2: I plan to actively seek a new job outside this organization in the near future.	0.840	Composite rhoc: 0.891
TI3: The continuous pressure of digital adaptation has made me want to exit the hospitality industry altogether.	0.844	AVE: 0.732
Technostress (TS) Cronbach's α: 0.833		
TS1: I experience intense mental strain due to the high complexity of the IT systems we use.	0.857	Composite rhoa: 0.834
TS2: The fast-paced, machine-driven workflows strip me of my operational autonomy.	0.867	Composite rhoc: 0.900
TS3: I feel that digital communication channels blur the boundaries between my work and personal life.	0.873	AVE: 0.750

Source: Research data, 2026

To evaluate construct-level internal consistency, this study bypassed reliance on Cronbach's α alone—which is notoriously prone to underestimating reliability in multi-item scales—and simultaneously scrutinized composite reliability metrics (rhoa and rhoc). The empirical results demonstrate that Cronbach's α values range from 0.802 (Job Burnout) to 0.880 (Digital Job Demands). Crucially, the stringent rhoa coefficients range from 0.804 to 0.894, while the traditional Jöreskog rhoc values span from 0.883 to 0.925. Every metric is well above the conservative benchmark of 0.70, confirming excellent internal consistency across all seven indicator blocks.

Convergent validity captures the degree to which a cluster of reflective items effectively unifies to measure its intended latent construct. This property is evaluated via the Average Variance Extracted (AVE). Methodological literature dictates that an AVE value must exceed 0.50, signifying that the construct extracts more variance from its assigned indicators than it loses to residual measurement error. The outer model estimation yielded highly favorable convergent parameters. The AVE scores range from 0.716 (Job Burnout) to 0.805 (Digital Job Demands). This indicates that all latent constructs explain between 71.6% and 80.5% of their respective indicator variances. These results provide robust empirical evidence of convergent validity for the entire measurement framework.

To ensure that each construct captures a unique facet of organizational psychology rather than overlapping variances, discriminant validity was assessed. This study applied the contemporary Heterotrait-Monotrait (HTMT) ratio of correlations, which has largely superseded the traditional Fornell-Larcker criterion due to its superior sensitivity in discovering subtle discriminant violations. Methodologists state that HTMT values exceeding 0.85 point to an alarming lack of distinctiveness between variables. As detailed in Table 3, the highest HTMT ratio recorded is 0.663, occurring between AI Disruption Threat and Psychological Contract Breach. This indicates that while they share an expected theoretical overlap rooted in resource depletion, they remain empirically distinct constructs. The remaining matrix displays exceptionally low coefficients, particularly between Digital Job Demands and Turnover Intentions (HTMT = 0.073), thereby successfully establishing discriminant validity.

Table 3. Discriminant Validity

Latent Constructs	ADT	DJD	JB	PCB	SA	TI
DJD	0.019	—				
JB	0.362	0.117	—			

Latent Constructs	ADT	DJD	JB	PCB	SA	TI
PCB	0.663	0.103	0.564	—		
SA	0.212	0.238	0.605	0.256	—	
TI	0.359	0.073	0.643	0.548	0.397	—
TS	0.469	0.400	0.510	0.639	0.510	0.430

Source: Research data, 2026

To complete the outer model examination, global model fit criteria were generated for both the saturated and estimated model frameworks. The Standardized Root Mean Square Residual (SRMR) serves as the primary metric for assessing absolute model fit. The analysis yielded an SRMR value of 0.048 for the saturated model and 0.051 for the estimated model. Both configurations sit comfortably below the standard 0.080 cutoff, indicating an acceptable balance between the observed and expected covariance matrices. Complementing this, the Normed Fit Index (NFI) values reached 0.823 for the saturated architecture and 0.820 for the estimated structural pipeline. The exact misfit distances—reflected by the dULS (0.535 vs. 0.597) and dG (0.321 vs. 0.327) parameters—remained stable and tight, with an overall Chi-Square value of 770.531 for the estimated system. Taken together, these metrics show that the overall measurement design forms a solid empirical foundation permitting a confident progression to structural model assessment and hypothesis testing.

Assessment of the Structural Model

Before interpreting the structural path, it is methodologically imperative to rule out any threat of lateral collinearity among the predictors of each endogenous construct. High collinearity among predictor variables can artificially inflate standard errors and distort the estimation of path coefficients. In PLS-SEM scholarship, inner VIF values must strictly fall below the conservative threshold of 3.3 to guarantee structural independence. The empirical results indicate that the inner VIF values across all predictor blocks range from 1.000 to 1.606. Specifically, Digital Job Demands and Technostress yield baseline VIFs of 1.000 when predicting their respective downstream targets. When predicting Job Burnout, the parallel indicators of Psychological Contract Breach and Surface Acting yield a VIF of 1.048, indicating minimal overlap. The highest VIF configuration occurs within the multi-predictor equation targeting Turnover Intentions, where Job Burnout registers at 1.606, flanked by Psychological Contract Breach at 1.267 and Surface Acting at 1.329. Because all values remain well beneath the 3.3 ceiling, the model is empirically verified as free from lateral collinearity distortion (see Table 4).

Table 4. Inner Variance Inflation Factors (VIF)

Predictor Construct	Job Burnout	Psychological Contract Breach	Surface Acting	Technostress	Turnover Intentions
AI Disruption Threat	—	1.197	1.000	—	—
Digital Job Demands	—	—	—	1.000	—
Job Burnout	—	—	—	—	1.606
Psychological Contract Breach	1.048	—	—	—	1.267
Surface Acting	1.048	—	—	—	1.329
Technostress	—	1.197	—	—	—

Source: Research data, 2026

Because all constructs were measured using a single survey instrument completed by the same respondents, a post-hoc assessment of common method variance (CMV) was conducted. Following the recommendation of Podsakoff et al. (2003), Harman's single-factor test was performed by loading all measurement items into an unrotated exploratory factor analysis. The results indicate that the first factor accounted for 32.76% of the total variance, well below the

commonly accepted threshold of 50%. Consequently, common method variance is unlikely to represent a serious threat to the validity of the study findings.

To determine the statistical significance and direction of the proposed relationships, a non-parametric bootstrap with 5,000 resamples was performed. The structural model examines ten hypothesized direct relationships linking digital strain and technology-related disruption to cognitive, emotional, and behavioral outcomes. The structural path estimates indicate that technology-related workplace demands are associated with a sequence of significant cognitive, emotional, and behavioral outcomes among hospitality employees. Digital Job Demands generate a strong positive effect on Technostress ($\beta = 0.345$, $t > 6.5$, $p < 0.001$). From there, Technostress strongly predicts both Psychological Contract Breach ($\beta = 0.360$, $p < 0.001$) and Job Burnout ($\beta = 0.427$, $p < 0.001$). AI Disruption Threat also demonstrates significant positive relationships with Psychological Contract Breach ($\beta = 0.420$, $p < 0.001$) and Surface Acting ($\beta = 0.405$, $p < 0.001$).

These cognitive and emotional responses are significantly associated with higher levels of employee strain and withdrawal-related outcomes. Job Burnout is driven by parallel pressures from Psychological Contract Breach ($\beta = 0.369$, $p < 0.001$) and Surface Acting ($\beta = 0.418$, $p < 0.001$). Ultimately, the model's final dependent variable, Turnover Intentions, is directly predicted by Job Burnout ($\beta = 0.361$, $p < 0.001$), Psychological Contract Breach ($\beta = 0.269$, $p < 0.001$), and Surface Acting ($\beta = 0.094$, $p < 0.05$). All ten hypothesized structural relationships are statistically significant, providing empirical support for the proposed sequential structural model. The detailed path coefficients are presented in Table 5.

Table 5. Structural Path Coefficients and Statistical Significance

Hypothesized Structural Path	(β)	T Stat.	P Values	Result
Digital Job Demands --> Technostress	0.345	8.415	0.000	Supported
AI Disruption Threat --> Psych. Contract Breach	0.420	9.333	0.000	Supported
AI Disruption Threat --> Surface Acting	0.405	8.617	0.000	Supported
Technostress --> Psychological Contract Breach	0.360	8.571	0.000	Supported
Technostress --> Job Burnout	0.427	9.705	0.000	Supported
Psych. Contract Breach --> Job Burnout	0.369	9.462	0.000	Supported
Surface Acting --> Job Burnout	0.418	10.195	0.000	Supported
Psych. Contract Breach --> Turnover Intentions	0.269	7.079	0.000	Supported
Surface Acting --> Turnover Intentions	0.094	2.611	0.009	Supported
Job burnout --> Turnover Intentions	0.361	10.314	0.000	Supported

Source: Research data, 2026

Discussion

The primary objective of this study was to examine the psychological mechanisms through which digital transformation influences turnover intentions among frontline hospitality employees. Drawing upon the complementary perspectives of Job Demands-Resources (JD-R) theory (Schaufeli & Bakker, 2004) and Conservation of Resources (COR) theory (Hobfoll, 1989), the findings reveal that digitalization is associated with a sequence of cognitive, emotional, and resource-depletion processes that ultimately contribute to employee withdrawal intentions. Rather than functioning solely as an operational enabler, digital transformation may introduce additional demands and uncertainties, affecting employees' perceptions, emotional experiences, and behavioral intentions.

While the findings highlight several adverse consequences associated with digital transformation, they should not be interpreted as evidence that technology itself is inherently detrimental. Previous studies have demonstrated that digital technologies can enhance service efficiency, improve operational consistency, and create opportunities for learning and professional development. The present findings suggest that negative outcomes are more likely

to emerge when digital transformation is perceived as placing excessive demands on organizations, as insufficient organizational support, or as raising concerns about future employment. Consequently, the human consequences of digitalization appear to depend not only on the technologies implemented but also on how those technologies are introduced, communicated, and supported within organizations.

The results provide strong support for the proposition that Digital Job Demands constitute an important antecedent of Technostress. Consistent with previous hospitality research (Demirovic-Bajrami et al., 2026; Tseng & Liu, 2026), employees who face continuous connectivity, multiple digital platforms, and technology-intensive work requirements report significantly higher levels of technology-related strain. This finding supports the JD-R perspective that digital demands may constitute modern job demands that require continuous cognitive adaptation. In high-touch hospitality environments, frontline employees must simultaneously manage customer expectations and technology-mediated operational processes, thereby increasing the likelihood of cognitive overload and stress.

The findings further demonstrate that AI Disruption Threat contributes significantly to both Psychological Contract Breach and Surface Acting. Employees who perceive a greater risk of technological displacement are more likely to question whether their organization remains committed to their long-term welfare and career development. This finding supports previous arguments suggesting that AI-driven transformation may undermine employees' perceptions of employment security and organizational support (Leong et al., 2025; SALAMA et al., 2025). From a psychological contract perspective, employees may interpret aggressive technological investment as a signal that organizational priorities are shifting away from human capital and toward technological efficiency. Simultaneously, AI Disruption Threat significantly increases Surface Acting, suggesting that employees who are concerned about technological replacement may suppress their genuine emotions while maintaining positive service displays. This finding highlights the emotional burden associated with perceived technological insecurity in customer-facing service environments.

Beyond the direct effects of AI Disruption Threat, the results indicate that Technostress plays a central role in shaping employees' perceptions of their relationship with the organization. The significant positive relationship between Technostress and Psychological Contract Breach suggests that employees experiencing persistent technology-related strain may interpret inadequate support, training, or adaptation resources as the organization's failure to fulfill its implicit obligations. This finding extends previous hospitality research by demonstrating that Technostress is not merely an operational stressor but may also influence employees' relational evaluations of organizational commitment and support.

The findings also reveal that Technostress is a significant predictor of Job Burnout. This result aligns closely with COR theory, which proposes that continuous resource depletion eventually results in emotional exhaustion and reduced psychological capacity (Hobfoll, 2001). In hospitality settings, employees are required to adapt to technological change while maintaining high service performance continuously. Over time, the sustained effort required to manage technological complexity, digital workloads, and operational disruptions may exhaust employees' emotional and cognitive resources, thereby increasing burnout levels.

Consistent with expectations, both Psychological Contract Breach and Surface Acting significantly contribute to Job Burnout. Employees who perceive that organizational commitments have not been fulfilled must devote additional emotional and cognitive resources to cope with uncertainty and diminished trust. Similarly, employees who frequently engage in Surface Acting experience emotional dissonance due to a discrepancy between felt and displayed emotions. Both processes consume valuable psychological resources and contribute to emotional exhaustion. These findings reinforce previous research on emotional labor and

burnout by demonstrating that cognitive evaluations of organizational treatment and of emotional regulation strategies jointly influence employee well-being.

The final stage of the proposed framework concerns employee withdrawal intentions. The results indicate that Psychological Contract Breach, Surface Acting, and Job Burnout each contribute significantly to Turnover Intentions. Employees who perceive organizational betrayal are more likely to reconsider their commitment to the organization and explore alternative employment opportunities. Likewise, employees who frequently engage in emotionally demanding surface acting may become increasingly detached from their work roles over time. Most importantly, Job Burnout emerged as one of the strongest predictors of Turnover Intentions, suggesting that emotional exhaustion represents a critical mechanism through which technology-related pressures are translated into withdrawal cognitions. These findings are consistent with prior hospitality studies identifying burnout as a major antecedent of employee turnover (Gusti et al., 2025; Shin & Kang, 2026).

Taken together, the findings support a sequential interpretation of technology-related strain within hospitality organizations. Digital Job Demands increase Technostress, while AI Disruption Threat simultaneously influences employees' cognitive and emotional responses through Psychological Contract Breach and Surface Acting. These mechanisms contribute to Job Burnout, which, in turn, increases Turnover Intentions. By integrating JD-R and COR perspectives, this study provides a more comprehensive explanation of how digital transformation influences employee retention. It demonstrates that the human consequences of digitalization extend beyond operational efficiency considerations to encompass broader relational, emotional, and psychological outcomes.

Theoretical Implications

This study contributes to the growing literature on digital transformation in hospitality by extending both the Job Demands-Resources (JD-R) theory (Schaufeli & Bakker, 2004) and the Conservation of Resources (COR) theory (Hobfoll, 1989, 2001) within technology-intensive service environments. First, the findings reinforce the JD-R perspective by demonstrating that digitalization introduces new forms of job demands that extend beyond traditional operational pressures. The significant relationship between Digital Job Demands and Technostress confirms that technology-related requirements, such as continuous connectivity, multiple digital platforms, and real-time information processing, function as important contemporary job demands. This finding broadens the conceptualization of workplace stressors in hospitality by illustrating how digital transformation can influence employee well-being through technology-induced strain.

Second, this study advances understanding of the psychological consequences of AI-driven transformation. The significant effects of AI Disruption Threat on Psychological Contract Breach and Surface Acting suggest that employees respond to technological change through both cognitive and emotional mechanisms. From a cognitive perspective, concerns regarding technological displacement may weaken employees' perceptions of organizational support and employment security, thereby increasing perceptions of psychological contract breach. From an emotional perspective, the same concerns may prompt employees to rely more on surface acting as they attempt to maintain organizational display rules while experiencing uncertainty about their professional future. These findings contribute to the emerging literature on artificial intelligence in hospitality by demonstrating that the consequences of AI-related concerns extend beyond operational adaptation and encompass broader relational and emotional responses.

Third, the study highlights the central role of Technostress within digitalized hospitality workplaces. The significant effects of Technostress on Psychological Contract Breach and Job Burnout indicate that technology-related strain influences not only employees' emotional well-being but also their perceptions of the employment relationship. This finding extends previous

hospitality research by positioning Technostress as a mechanism through which digital demands affect both individual and organizational outcomes. In doing so, the study provides a more integrated understanding of how technology-related stress contributes to resource depletion and organizational disengagement.

The findings also contribute to emotional labor and burnout literature by demonstrating the complementary influence of Psychological Contract Breach and Surface Acting on Job Burnout. Consistent with COR theory, both cognitive resource loss arising from diminished organizational trust and emotional resource depletion resulting from sustained surface acting contribute to employee exhaustion. This supports the argument that burnout emerges not from a single source of strain but from the cumulative impact of multiple resource-depleting processes operating simultaneously within the workplace.

Finally, the significant effects of Psychological Contract Breach, Surface Acting, and Job Burnout on Turnover Intentions provide further theoretical support for resource-based explanations of employee withdrawal. The findings suggest that employees who experience reduced organizational trust, persistent emotional regulation demands, and emotional exhaustion become increasingly likely to consider leaving their organization. By integrating JD-R and COR perspectives within a unified sequential structural framework, this study offers a more comprehensive explanation of how digital transformation influences employee retention outcomes in hospitality settings. The proposed framework demonstrates that the human consequences of digitalization extend beyond operational efficiency considerations and involve interconnected cognitive, emotional, and resource-depletion processes that shape employee turnover intentions.

Managerial and Practical Implications

The empirical validation of the proposed structural model provides hotel executives, restaurateurs, and technology developers with evidence-based guidance for managing digital transformation while preserving employee well-being and retention. Because Digital Job Demands significantly increase Technostress, hospitality organizations should carefully evaluate how digital systems are introduced and integrated into daily operations. While technological innovation can enhance efficiency and service consistency, excessive digital workloads, complex interfaces, and continuous connectivity may unintentionally increase employee strain. Consequently, the implementation of information technologies, digital service platforms, and automated systems should be accompanied by adequate technical training, user support, and realistic adaptation periods. Establishing dedicated technical support teams can further reduce the burden on frontline employees by allowing them to focus on service delivery rather than troubleshooting operational problems. In addition, organizations should establish clear digital boundaries to minimize techno-invasion and protect employees from excessive work-related connectivity outside scheduled working hours.

The findings also highlight the importance of maintaining organizational trust throughout digital transformation initiatives. Because AI Disruption Threat significantly contributes to Psychological Contract Breach, hospitality organizations should communicate the purpose and expected outcomes of technological investments transparently. Employees who perceive automation as a threat to their future employment may become increasingly uncertain about the organization's commitment to their long-term development. To mitigate these concerns, managers should emphasize how Smart Technologies, Artificial Intelligence, Robotics, and Algorithms (STARA) complement rather than replace human capabilities. Employee participation in technology implementation processes, together with continuous career development opportunities, may further strengthen perceptions of organizational support and reduce feelings of professional vulnerability.

Furthermore, the significant effects of Surface Acting and Job Burnout on Turnover Intentions underscore the importance of protecting employees' emotional well-being. Frontline hospitality employees frequently operate under demanding emotional display expectations while simultaneously adapting to changing technological environments. Organizations should therefore provide sufficient recovery opportunities through structured break periods, employee assistance programs, stress-management initiatives, and supportive supervisory practices. Managers should also consider performance evaluation systems that balance operational efficiency with employee well-being and authentic service delivery. By combining technological innovation with human-centered management practices, hospitality organizations can reduce technology-related strain, preserve organizational trust, and strengthen employee retention in increasingly digitalized service environments.

CONCLUSION

This study investigated the influence of AI-driven hyper-personalization on tourist loyalty by examining the roles of tourist engagement, memorable tourism experiences, and tourist satisfaction. The findings indicate that AI-driven hyper-personalization significantly enhances tourist engagement, memorable tourism experiences, and tourist satisfaction. However, its direct influence on tourist loyalty was not statistically significant, suggesting that loyalty formation occurs primarily through experiential and evaluative mechanisms rather than through personalization alone. Furthermore, the mediation analysis revealed that the influence of AI-driven hyper-personalization on tourist loyalty is largely transmitted through engagement, memorable tourism experiences, and satisfaction. This finding underscores the importance of understanding AI-enabled tourism services not merely as technological tools but as mechanisms that shape tourists' psychological and experiential evaluations.

The results further demonstrate that tourist engagement positively influences memorable tourism experiences and satisfaction, while memorable tourism experiences significantly contribute to both satisfaction and loyalty. Tourist satisfaction was also found to be a significant predictor of loyalty. Collectively, these findings confirm the importance of engagement, experience, and satisfaction in transforming AI-enabled personalization into favorable behavioral outcomes. From a theoretical perspective, the study extends the application of the Stimulus–Organism–Response (SOR) framework by demonstrating that AI-driven hyper-personalization influences tourist loyalty indirectly, via multiple organismic mechanisms rather than a direct pathway. The findings, therefore, contribute to a more nuanced understanding of loyalty formation in AI-enabled tourism environments. Overall, the study highlights the strategic importance of AI-driven hyper-personalization in contemporary tourism marketing and demonstrates that the effectiveness of AI technologies depends largely on their ability to create meaningful, memorable, and satisfying tourism experiences.

Limitations and Future Research Directions

Several limitations should be acknowledged. First, the study employed a cross-sectional design, which limits the ability to establish causal relationships over time. Future studies may adopt longitudinal approaches to examine changes in tourists' perceptions and behaviors as AI technologies continue to evolve. Second, the study focused on tourists who had previously used AI-assisted tourism services, which may limit the generalizability of the findings to broader tourist populations. Third, the research examined only five constructs and did not incorporate other potentially important variables such as trust, perceived intelligence, anthropomorphism, perceived usefulness, or technology readiness.

Future studies may extend the proposed framework by incorporating additional psychological and technological variables to provide a more comprehensive understanding of

AI-enabled tourism experiences. Researchers may also examine different forms of artificial intelligence, including conversational AI, generative AI, virtual travel assistants, and service robots, to determine whether their impacts on tourist behavior differ across contexts. In addition, future studies should investigate the roles of privacy concerns, trust in AI, perceived transparency, and algorithmic fairness, as these factors may influence tourists' willingness to engage with AI-enabled tourism services and may further explain loyalty formation processes. Comparative studies across destinations, cultures, and tourism segments may further enhance understanding of how tourists respond to AI-driven personalization in diverse environments. In addition, future research could employ longitudinal designs or experimental approaches to examine the causal mechanisms by which AI technologies influence tourists' experiences and loyalty over time.

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