

The Impact of Smart Hotel Attribute Perception and Perceived Service Innovation on Tourist Happiness and Brand Loyalty

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Introduction

- COVID-19 has reshaped tourism and accommodation demand, leading travelers to prioritize health and safety and to respond more complexly in both cognitive and emotional terms to smart hotels. As highly technology-integrated offerings, smart hotels address these concerns through high-tech self-service, untact environments, and hygiene controls that reduce contact risk while enhancing efficiency and personalization. Because travelers' needs and the relative importance of smart hotel attributes shift over time and across contexts, it is necessary to re-evaluate key attributes and evolving preferences in the post-pandemic era to better understand market demand and decision-making.
- Existing studies on smart hotels have largely focused on functionality, efficiency, technology acceptance, and satisfaction. However, travelers' needs and psychological responses have shifted significantly under pandemic conditions. Therefore, it is necessary to redefine smart-hotel attribute perceptions in the post-pandemic context and apply the Cognitive-Affective System Theory (CAST) to better understand the complex psychological processes and decision-making behaviors of travelers.



Objectives and Questions

Research Objectives :

- This study aims to re-identify changes in travelers' perceptions of smart hotel attributes in the post-pandemic era and to apply the Cognitive-Affective System Theory (CAST) to understand how these attributes influence tourist happiness, perceived service innovation, willingness to co-create, and loyalty.

Research Questions :

- RQ1: Have tourists' perceptions of smart hotels changed as a result of the pandemic? Which attributes are considered to be of significance?
- RQ2: Does tourists' experience of smart hotels affect their cognitive responses (perceived service innovation) and emotional responses (tourist happiness)?
- RQ3: Do emotional responses (tourist happiness) and cognitive responses (perceived service innovation) influence individual behavioural intentions?

Methodology

A Mixed-Methods Approach

Qualitative

- 9 smart hotel employees & 10 travelers who have stayed in smart hotels
- Open-ended questions
- Perceived attributes of smart hotels in the post-pandemic era



Quantitative

- 487 valid survey responses
- Distributed online to smart hotel travelers
- SPSS, SmartPLS, EFA, PLS-SEM



Results

- The perceived attributes of smart hotels mainly encompass convenience and control, maintenance and safety, untact environment, personalization, hedonic, and trendiness.
- In the post-pandemic era, travelers place greater emphasis on trendiness, hedonic, and untact environment, while traditional functional attributes remain an indispensable foundation.
- According to the Cognitive-Affective System Theory (CAST), affective responses influence travelers' value co-creation and loyalty more rapidly and directly than cognitive responses, thus serving as the primary driver of behavioral intentions.
- Furthermore, the positive emotions elicited by perceived service innovation are often short-lived, which explains why service innovation does not directly lead to higher traveler loyalty.

Conclusions

Theoretical Contributions :

- This study broadens perceived smart hotel attributes beyond functional aspects by incorporating social and affective dimensions, including trendiness and hedonic value.
- By applying the Cognitive-Affective System Theory (CAST), this study integrates cognitive and affective responses to explain travelers' psychological and behavioral decision-making.
- This study embeds perceived service innovation, happiness, and co-creation willingness into a multi-attribute framework, advancing smart hotel research from a technology-centered view to a multidimensional psychological and behavioral perspective.

Managerial Implications :

- Enhance experiences oriented toward trendiness, hedonic value, and happiness through immersive and personalized technological environments.
- Strengthen untact technologies to reduce travelers' health and safety anxiety.
- Increase traveler control and promote co-creation via hotel applications, self-service systems, and intelligent assistants.
- Prioritize emotionally supportive brand experiences by integrating technology with humanized care.
- Focus on long-term value in service innovation, as short-lived novelty alone does not foster loyalty.