

RESEARCH ARTICLE



Designing the digitalized guest experience: A comprehensive framework and research agenda

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Abstract

Digital transformation has emerged as a critical necessity for hospitality, a sector that traditionally prioritizes human interaction and personalized experiences. While prior research has explored the impact of digital technologies on the *realized* guest experience, there is a lack of work that studies their influence on the *intended* guest experience, as designed by hoteliers. Drawing on existing literature on customer experience management and digitalization in hospitality, this research aims to understand the psychological mechanisms by which digital technologies enhance the *intended digitalized guest experience*. We conducted two qualitative studies, involving 22 hotel professionals and 18 consumers. By consolidating these different theoretical and practical perspectives, we propose a conceptualization of the intended digitalized guest experience and present an integrative framework that includes the mediating and reciprocal role of consumer- and professional-based psychological mechanisms, along with antecedents, outcomes, and contingency factors. These findings have practical implications for hotel professionals, enabling them to leverage appropriate digital strategies for successful guest experiences. The article concludes with specific recommendations to managers on how to design a unique guest experience. These recommendations include designing a game-like experience, developing “care” as a new source of digital value creation, and providing training to the staff to enhance their creativity.

KEYWORDS

artificial intelligence, digital technology, hospitality, intended digitalized guest experience, self-service technology

1 | INTRODUCTION

Digital transformation involves the strategic use of digital technologies to reshape business operations and improve value propositions for customers (Verhoef et al., 2021). In hospitality, digital technologies are widely recognized as valuable sources of competitive advantage (Busulwa et al., 2022). However, they also present

challenges for an industry that has traditionally prioritized human interaction and personalized experiences (Lam & Law, 2019). A recent Statista survey found that approximately 50% of hospitality executives identified the utilization of digital technology to enhance customer and/or supplier service as a significant business priority. Furthermore, 84% of these executives have dedicated individuals or teams overseeing digital transformation initiatives (Statista, 2022).

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To gain a better understanding of this phenomenon, further exploration is needed to investigate *how innovative [digital] technologies enhance customer experience* in hospitality, as emphasized by Kim and So (2022, p. 11). In this study, we focus on how managers can leverage digital technologies to enhance unique customer experiences in hospitality and create new opportunities.

Research on hospitality has traditionally focused on the influence of digital technologies on hotel performance (for a synthesis, see Iranmanesh et al., 2022), with customer experience receiving less attention (Kim & So, 2022). Some studies on customer experience in hospitality examine the influence of various disruptive technologies, such as frontline robots (Belanche et al., 2020a; Belanche et al., 2021; Schepers et al., 2022) and virtual reality technology (Flavián et al., 2021) on guests' perceptions and reactions. These studies share a common focus on the *realized* experience—referring to the customers' perception of their actual experience—whereas there is a lack of research, on the *intended* experience (Becker & Jaakkola, 2020)—which refers to the strategically designed experience an organization aims to create for its targeted customers (Ponsignon et al., 2017)—, especially with regard to hospitality (Bonfanti et al., 2021).

The intended customer experience refers to an emerging area of research rooted in customer experience management (CEM). Verhoef et al. (2009) define CEM as a strategic approach employed by companies to design customer experiences that create value for both the customer and the firm. While CEM has been studied in marketing (e.g., Homburg et al., 2017; Jaakkola et al., 2015; Lemon & Verhoef, 2016), it has given rise to a limited number of studies in hospitality (Bonfanti et al., 2021, 2023). Among research on CEM in hospitality, a number of studies focus on the role of technology from the perspective of organizational behavior (Kandampully et al., 2018; Rahimian et al., 2021). These studies highlight the importance of adopting a process-oriented approach and consider various perspectives, including those of hotel professionals and consumers. We propose to complement this organizational approach by focusing on individual psychological mechanisms, from both hotel professionals and consumers, triggered by the use of digital technologies in hospitality to design a unique customer experience.

Based on research on CEM and digital transformation, this research focuses on psychological mechanisms through which digital technologies contribute to enhancing the *intended digitalized guest experience*. Specifically, it aims to propose an integrative framework that encompasses the mediating and reciprocal role of consumer- and professional-based psychological mechanisms, along with their antecedents, outcomes, and contingency factors. Following an iterative approach combining theoretical and practical insights, we first conducted a total of 22 semistructured interviews with hotel professionals (managers and employees) from the high-end hotel industry to develop the proposed integrative framework. We then conducted 18 semistructured interviews with consumers to delve deeper into the consumer-based psychological mechanisms associated with our framework. By combining perspectives from hotel professionals and consumers, we shed light on the complex processes involved in the enhancement of the intended digitalized guest experience.

Overall, this research makes three key contributions to the field. First, there is a need to understand how digital technologies influence the customer experience (Kim & So, 2022). This paper enhances the literature on digitalization in hospitality by presenting a comprehensive conceptualization of the *intended digitalized guest experience*, studied from the perspective of hotel professionals. This study complements previous research that focuses on the prestige of the customer journey when exploring disruptive technologies (e.g., Flavián et al., 2021). Specifically, it encompasses both enabling and disruptive technologies while considering the dimensions of the customer experience and the different stages of the customer journey, which have often been examined independently in the literature (Hoyer et al., 2020). Second, previous work highlights the importance of studying the *design* of the customer experience, including the responses and reactions designed by managers (Becker & Jaakkola, 2020). This paper contributes to the literature on CEM in hospitality by developing an integrative framework—studied from both the perspective of hotel professionals and consumers—that includes the mediating and reciprocal roles of both professional- and consumer-based psychological mechanisms. While our framework is in line with Cetin and Walls (2016) and Kandampully et al.'s (2018) recommendation to integrate multiple perspectives when studying CEM in hospitality, it goes beyond this by incorporating the antecedents of those perspectives. Waqas et al. (2021) identified a gap in the literature regarding the role of antecedents in the co-creation of new experiences (in this case, the intended digitalized guest experience). Third, this research identifies contingency factors in hospitality, as requested by Becker and Jaakkola (2020). These authors emphasize the need to identify *relevant contingencies* that can alter the intended customer experience (Becker & Jaakkola, 2020, p. 641).

2 | ENHANCING THE INTENDED DIGITALIZED GUEST EXPERIENCE IN HOSPITALITY

2.1 | Digital transformation in hospitality

Verhoef et al. (2021, p. 889) defined digital transformation as *a change in how a firm employs digital technologies, to develop a new digital business model that helps to create and appropriate more value for the firm*. Verhoef et al. (2021) stress the importance of conducting a comprehensive evaluation of all business processes during digital transformation and emphasize the need for a redesign that prioritizes enhancing the customer experience, adding value, ensuring scalability, and strategically optimizing operations. Reinartz et al. (2019) support this perspective by highlighting how digital technologies enable new market behaviors, interactions, and experiences, leading to the transformation of customer relationships, internal processes, and the overall value proposition of a business.

Research on digital transformation in hospitality has predominantly focused on its impact on hotel performance (Iranmanesh et al., 2022)

rather than the customer experience. For instance, Ahmad and Scott (2019) emphasized the effectiveness of information systems in reducing costs and contributing to financial performance. Social media platforms were shown to influence hotel sales growth and financial performance through electronic word-of-mouth (Garrido-Moreno et al., 2020). The adoption of mobile booking apps in hotels has also been seen to streamline both operations and the booking process (Jung et al., 2014). Integrating robots into hotel operations has generated additional revenue and improved financial performance (Ivanov, 2020). Furthermore, big data analytics have been proven to influence various aspects of revenue management (Egan & Haynes, 2019).

Fewer studies in hospitality explore the influence of digital technologies on customer experience, something that is attested to by Kim and So's (2022) analysis of about two decades of customer experience research in hospitality. For example, Jung et al. (2014) found that hotels can improve the guest experience by using mobile apps for various tasks such as unlocking room doors. In addition, research has shown that frontline robots influence guests' perceived performance (Belanche et al., 2020a), intention to recommend (Belanche et al., 2021), loyalty intentions, and guest spending (Schepers et al., 2022). Further hotel studies focus on specific stages, such as the prestage. For example, these studies explore the impact of using disruptive virtual reality technology, such as head-mounted displays, instead of less advanced enabling technologies (PC, cell phone) when viewing a destination video, on sensory stimulation, ease of imagination (Flavián et al., 2021), or the intention to book a hotel (Orús et al., 2021). The aforementioned studies focus mainly on customers' perceptions of the experience they have actually had with technology. Nevertheless, in hospitality, there is a need for further research into the experience that companies intend to design for their guests (Bonfanti et al., 2021).

2.2 | Designing guest experiences in the digital era

According to Becker and Jaakkola (2020, p. 638), customer experience is defined as *a set of spontaneous, nondeliberate responses and reactions of customers to offer-related stimuli throughout the customer journey*. While companies may not have direct control over creating the customer experience, they can influence the triggers of customer responses (Becker & Jaakkola, 2020). The *intended customer experience* represents the manager's perspective on customer experience and involves meticulous design and planning for various aspects of the customer journey (Bonfanti et al., 2021). It plays a crucial role in CEM as it embodies the organization's strategic vision, shaping and managing customer experiences to foster positive emotions, strengthen brand loyalty, and drive overall customer satisfaction (Jaakkola et al., 2015; Lemon & Verhoef, 2016; Verhoef et al., 2009). In hospitality, Cetin and Walls (2016) integrate the views of guests and hotel managers to identify possible gaps in perceptions. They focus on two dimensions of guest experience (social interactions and the physical environment). Their results highlight the role of technology in the "physical elements of the facility" and in "service

personalization." However, they do not examine the underlying psychological mechanisms of consumers and hotel professionals, nor the role of digital technologies in designing a unique customer experience.

The emergence of digital technologies has disrupted CEM (Holmlund et al., 2020). However, research on the digital transformation of CEM in the hospitality industry remains limited (Kandampully et al., 2018; Rahimian et al., 2021). For instance, Rahimian et al. (2021) identify four essential stages (customer identification, customer experience design, implementation, and monitoring) for improving CEM implementation in hospitality. Kandampully et al. (2018) emphasized the limited integration of diverse perspectives in CEM studies within hospitality and emphasized the need to capture its dynamic nature. They proposed a model that emphasizes cross-departmental collaboration and the integration of technology and social media.

3 | METHODOLOGY

The objective of this research was to explore the psychological mechanisms that contribute to enhancing the digitalized guest experience in hospitality. To achieve this objective, we adopted a qualitative research approach, utilizing in-depth interviews as our primary method of data collection (Gioia, 2021). These types of interviews uncover unique perspectives, ideas, and experiences that have not been adequately addressed in the existing literature (Rubin & Rubin, 2011). In addition, Iranmanesh et al. (2022, p. 4) highlighted *a significant lack of qualitative [studies]* in the field of digital technology research in hospitality.

We conducted 22 in-depth interviews with hotel professionals (16 managers and 6 employees) working in the upscale hotel industry (see interview guide in Appendix A). This segment was chosen due to its significant market share, accounting for 61.4% of the global room capacity, as highlighted in a recent study conducted by Xerfi (2021). The interviews were conducted face-to-face, by telephone, or by videoconference between April and December 2021 (see Table B1, for sample composition). Our participants consisted of a diverse range of hotel professionals in management roles, including general managers, marketing managers, pricing managers, account managers, vice presidents of customer global experience, directors of business development from large hotel groups or independent four- or five-star establishments, as well as representatives from a digital marketing agency specializing in the hotel sector. We employed purposeful and snowball sampling methods, concluding recruitment when theoretical saturation was reached, meaning that no new insights emerged from the data collected in the field (Strauss & Corbin, 1998).

We complemented our data collection by conducting 18 semistructured interviews with consumers (see interview guide in Appendix A), aiming to gain deeper insights into the consumer-based psychological mechanisms associated with our integrative framework. The interviews were conducted between October and December 2021. Participants of different age, gender, and

professional groups were interviewed, and all had already stayed at least once in an upscale hotel in the 3 years before data collection (see Table B2, for sample composition).

All interviews were recorded, transcribed, coded, and analyzed using thematic content analysis. The total duration for the interviews was 8 h and 25 min for professionals and 3 h and 52 min for consumers. The transcriptions were generated using the Noota platform, a sophisticated tool specifically designed for transcription purposes. Subsequently, the authors of this article meticulously reviewed and reread the transcriptions to ensure accuracy and reliability. Coding was executed using the assistance of the Atlas.ti software and Excel spreadsheets, which facilitated the organization of codes based on the subcategories and overarching themes we established in our research. Moreover, it enabled the emergence of new categories during the coding process. The analysis included examining the relationships between codes, exploring the frequency of codes across the transcripts, and identifying key themes and subthemes that emerged from the data (Miles & Huberman, 1994). We conducted a rigorous and iterative analysis, constantly referring back to the literature and the field data to refine and validate the identified themes, as suggested by Thompson (1997).

4 | FINDINGS

4.1 | Hotel digital transformation

According to the director of revenue management at Marriott International, “[d]igital tools have become ubiquitous in upscale hotels” (Interview P). The founder of the Influence Society agency emphasized “the generational evolution of digitalization over the past decade” (Interview B). The director of partnerships at Accor Austria further added that “technology has evolved, and the number of touchpoints has increased” (Interview C). However, there is a recognition among respondents that the hotel sector lags behind other industries in terms of digitalization. A receptionist at the five-star hotel Château de Fonscolombe shared their perspective, stating that “while the hotel industry is increasingly relying on digital technology, there is potential for even greater advancements with the help of new technologies” (Interview J). These results show that digitization is gaining ground in the hotel industry, but that there is still room for improvement.

Regarding the technologies mentioned by the interviewees, we can categorize them into two types: traditional (or *enabling*) digital technologies and truly new (or *disruptive*) technologies, as identified by Munawar et al. (2022). The *enabling* digital technologies mentioned include: (1) the websites and applications of hotels and online travel agencies; and (2) customer relationship management systems and back office software and systems, like Fols mobile or OPERA, which are tailored to the hotel industry. Respondents also mentioned *disruptive* technologies powered by artificial intelligence, such as: (1) Internet of things devices like coded door openers,

connected bedrooms, tablets, smart TVs, and Chromecast systems; additionally, (2) chatbots, virtual assistants, and robots; and (3) augmented reality, virtual reality, and mixed reality were recognized as disruptive technologies. According to the marketing director of the four-star hotel Manotel, these digital disruptive technologies were seen as “enhancing and magnifying the overall customer experience” (Interview R). These two categories of technologies occupy a significant place in hospitality. It remains for us to understand their specific role in the design of the intended digitalized guest experience.

4.2 | Conceptualization of the intended digitalized guest experience

To conceptualize the intended digitalized experience, we must first investigate the insights from professionals. Through this, we will explore both the dimension- and stage-oriented approaches.

4.2.1 | Exploring the dimensions of the intended digitalized guest experience

The customer experience is contingent upon the context in which it occurs, particularly its dimensions (Waqas et al., 2021). Based on interviews with hotel professionals, we propose to understand the concrete meaning of each dimension of the intended digitalized guest experience in the specific context of the hotel industry. The dimensions are presented according to their relative importance in the interviewees' statements. Supporting Information: Table C1 (see Online Appendix C) contains a consolidation of the professionals' verbatim accounts associated with the dimensions.

Affective dimension has been particularly emphasized by the interviewees, as indicated by the hotel director of Grape Hospitality Group, who highlighted that “[t]echnology should be capable of evoking emotions” (Interview D). The interviewees mentioned the two classical aspects of the affective dimension—pleasure and entertainment/fun—that can be fostered by technology (Bleier et al., 2019; Jeannot et al., 2022). Virtual reality, in particular, was mentioned as a source of pleasure, inspiring dreams and fostering a sense of discovery. The director of partnerships at Accor mentioned that “Chromecast is a technology solution that successfully pleases customers” (Interview C). Entertainment was highlighted as another important element in activating the affective dimension. The director of marketing at MiHotel emphasized that “technology in connected rooms provides guests with a highly entertaining experience. The ability to control various aspects of the room with a single switch, such as lights and music, was described as a fun and memorable feature” (Interview H). Another aspect of the affective dimension—the positive surprise—fostered by technology but rarely emphasized in academic literature (Kovacheva et al., 2022) is of particular importance in the hotel industry, especially in the upscale segment.

The director of Grape Hospitality Group in Spain mentioned “the introduction of Fols mobile as a way to personalize the guest experience and continuously surprise them throughout their stay” (Interview D). The *sensory dimension* enabled by technology, especially sight and hearing, was also emphasized in the interviews as enhancing the overall experience. The co-founder of MiHotel Lyon gave examples such as “Bluetooth systems in suites, allowing guests to enjoy music throughout different areas of the room, including the shower and bed” (Interview H). Furthermore, the executive assistant at the five-star Koh-I Noor hotel highlighted “the presence of digital walls that can be customized, providing visual and auditory stimulation” (Interview S). Moreover, while the stimulation of the three other senses—smell, touch, and taste—through technology is not yet widely available in hotels, the director of partnerships at Accor believed that “it will become crucial in influencing decisions, such as using scent to evoke vacation feelings or well-being” (Interview C). The accommodation manager at Novotel Lyon Nord mentioned “the popularity of touch tablets, which eliminate the need for physical contact with newspapers” (Interview O). “Combining various senses, such as starting an experience with the smell of chocolate and gradually incorporating taste,” was suggested as a way to create a truly memorable experience (Interview C).

The *social dimension* has been understood according to its traditional meaning in the literature, in the sense of developing more social interactions. The director of business development at Neom Hotels emphasized “the importance of creating a meeting place where people from different backgrounds can connect, both locally and globally” (Interview A). Similarly, the “implementation of Chromecast in common spaces” was mentioned by the business development director of Grape Hospitality Group “as a way to facilitate spontaneous interactions between guests” (Interview E). Nevertheless, some interviewees highlighted that the social dimension also refers to guests’ desire for fewer social interactions. The sales manager at Lavatotel Hotels Group indicated that “technology also allows for limited contact with others, particularly in light of the ongoing health crisis. Online check-ins, keyless room access, and contactless payment options were mentioned as examples of technology enabling a contactless experience” (Interview M). The results show that a balance to be struck between convenience and social interaction, regarding whether or not guests wish to have personal contact with hotel professionals. Surprisingly, the cognitive dimension was less associated with digital technologies by respondents than the other dimensions. The founder of the Influence Society agency emphasized “the importance of digitalization for reactivity, immediacy, and education. Technology should aid progress and foster curiosity, helping individuals become better members of society” (Interview B). Interviewees also acknowledged that technology positively influences attention, engagement, and mental effort. The director of business development at Neom Hotels mentioned “the goal of reducing the mental effort required for accessing information or services, ensuring a seamless and efficient experience for customers” (Interview A).

4.2.2 | Stages of the intended digitalized guest experience

As for dimensions, previous research has extensively examined the different stages of the customer journey, albeit in a more general context. However, in this particular case, we aim to provide insights into how digital technologies transform the intended guest experience by characterizing each stage of the customer journey, as defined by Verhoef et al. (2009). Supporting Information: Table C2 (see Online Appendix C) synthesizes the hotel professionals’ verbatim accounts of the stages of the intended digitalized guest experience.

1. *Decision process (prestay)*: The participants discussed strategies to enhance consumer engagement and drive interest in digital experiences leading up to the decision stage. The founder of the Influence Society agency highlighted a need for more personalization at these stages, such as “[h]ow a spa hotel’s website could adapt to the preferences of a client interested in spa services versus another client more inclined towards nearby golf facilities” (Interview B). Traditional communication tools were mentioned as supporting information searches by potential guests, as indicated by the co-founder of MiHotel Lyon: “One of our main communication tools is the use of social media, internet, online travel agents etc.” (Interview H). Nevertheless, the disruptive technology of virtual reality was mentioned as “an immersive tool with great potential to aid customers in making informed choices during the prestay phase and prevent disappointment” (Interview K).
2. *Purchase process (prestay)*: The interviewees agreed that artificial intelligence and data capturing technologies should be able to identify prospective customers who repeatedly visit a website without making a booking, to trigger the final purchase. The director of business development at Neom Hotels emphasized “the importance of understanding how to prompt customers to make a purchase, particularly when they visit the website multiple times without completing a booking. By utilizing artificial intelligence, the hotelier can identify the right package or incentive to encourage the customer to proceed with the purchase” (Interview A).
3. *Reception and check-in (stay)*: The interviewees unanimously agreed on the need for technology that is efficient, saves time, and ensures security throughout various touchpoints, notably reception and check-in. As acknowledged by the co-founder of MiHotel, “they [the service managers] have designed their services to allow guests to check in autonomously, minimizing reliance on staff” (Interview H). Similarly, the director of Grape Hospitality Group described their approach of “minimizing physical contact by removing the reception desk and adopting the use of the Fols mobile app to welcome guests” (Interview D). Simultaneously, interviewees pointed out several challenges that should be prioritized in technological development.
4. *Service offer (stay)*: Digital technologies have changed the way service is provided during a stay at a hotel, enhancing the overall

guest experience. With the advent of mobile apps and online platforms, guests have easy access to a range of services and information at their fingertips. The executive assistant of the five-star hotel Le Hameau Albert 1er stated: "It will continue in that direction with a lot of digitalization of a lot of services because we offered a lot of things to our customers during COVID-19 and now we realize that we can't take much away from them. In my opinion, the digital transition is really accelerating" (Interview L).

5. *Departure and check-out (poststay)*: Interviewees expressed the belief that technology could facilitate the departure and check-out stages of a hotel stay. For example, the account sales manager at the Westin Paris-Vendôme suggested "the possibility of allowing guests to check out directly through their mobile phones using integrated key technology, bypassing the need for interaction with the receptionist" (Interview V). Similarly, the director of the Novotel Dijon mentioned "the existence of fast check-in and fast check-out options, enabling guests to complete these processes using their card details alone" (Interview Q).
6. *Guest feedback (poststay)*: The interviewees emphasized the significance of customer feedback, both written (e.g., Tripadvisor reviews) and visual (e.g., Instagram photos). They acknowledged that hoteliers have limited control over these customer reviews but stressed the importance of being proactive in addressing them. Even if they hold reservations about these technological platforms, hoteliers have no choice but to consider and respond to customer feedback. The accommodation manager at the Novotel Lyon mentioned "the shift from guests directly discussing their issues with receptionists to expressing their concerns through online platforms." (Interview O). The director of revenue management at Marriot International and the executive assistant at Le Hameau Albert 1er, a five-star hotel, emphasized "the value of monitoring and utilizing various channels of communication (Interview P)," "including customer feedback platforms like TripAdvisor, despite personal reservations" (Interview L). Customer feedback therefore plays a key role in identifying areas for improvement in the design of customer experience.

4.2.3 | Defining the intended digitalized guest experience

To provide an integrative conceptual framework, we incorporated those insights from hotel professionals into the dimension- and stage-oriented approaches of intended guest experience. This led us to define the *intended digitalized guest experience* as the expected set of sensations, described as dimensions, that the managers aim to create for their targeted customers through digital interactions with the hotel throughout each stage of the customer journey. The *dimension-oriented approach* is reflected, in this study, in a set of four types of sensations—cognitive, affective, sensory, social—that are intentionally planned for customers when engaging with a digitalized hotel offering. The *stage-oriented approach* is shaped by the following three successive stages of the customer journey: prestage

(decision; purchase); stay (reception and check-in; service delivery); and poststage (departure and check-out; customer feedback). Figure 1 summarizes our conceptualization of the intended digitalized guest experience and presents an integrative framework that includes the mediating and reciprocal roles of customer- and professional-based psychological mechanisms, along with antecedents, outcomes, and contingency factors.

4.3 | Antecedents of the intended digitalized guest experience

In the following, we will present the antecedents of the conceptual model of the intended digitalized guest experience. Here, we include digital value creation sources, consumer- and professional-based psychological mechanisms, and their reciprocal influence.

4.3.1 | Digital value creation sources

The quotes collected from the interviews with hotel professionals refer to three firm-level sources of digital value creation outlined by Reinartz et al. (2019): *individualization*, *automation*, and *interaction*. This framework is relevant as it offers a framework for categorizing the various sources that contribute to the creation of digital value in hospitality. The interviews highlighted another source of value, called *care*, which focuses on the ability of technologies to assist hotel professionals in taking care of their guests and the environment. The four digital sources of value creation proposed are summarized in Figure 2.

Individualization refers to the personalization of marketing efforts that will be adapted to the specific needs and preferences of a guest (Reinartz et al., 2019). First, technology plays a crucial role in enabling hoteliers to gather qualified information for personalizing the entire customer experience. According to the business development director of Neom Hotels, "personalizing customer service is essential, but it should not be overtly apparent. It should seamlessly blend into the background without the customer feeling observed, filmed, or followed. For instance, they can anticipate your needs, such as preparing your coffee before you even sit down and ask" (Interview A). Second, technology gives guests the ability to customize their experience. The sales manager of Lavorel "has implemented a platform that allows customers to collect their preferences from one stay to the next" (Interview M). Third, technology enables hoteliers to provide personalized recommendations and rewards to guests. The receptionist at the five-star hotel Chateau de Fonscolombe believes that "digitalization can be highly effective in recommending personalized offers, especially for 5-star hotels where they strive to provide the best service with just a click of a button" (Interview J).

Automation refers to the implementation of technologies and systems that enable processes and activities in a hotel to be carried out automatically, without the need for direct human intervention. Technology contributes to a more efficient customer experience by

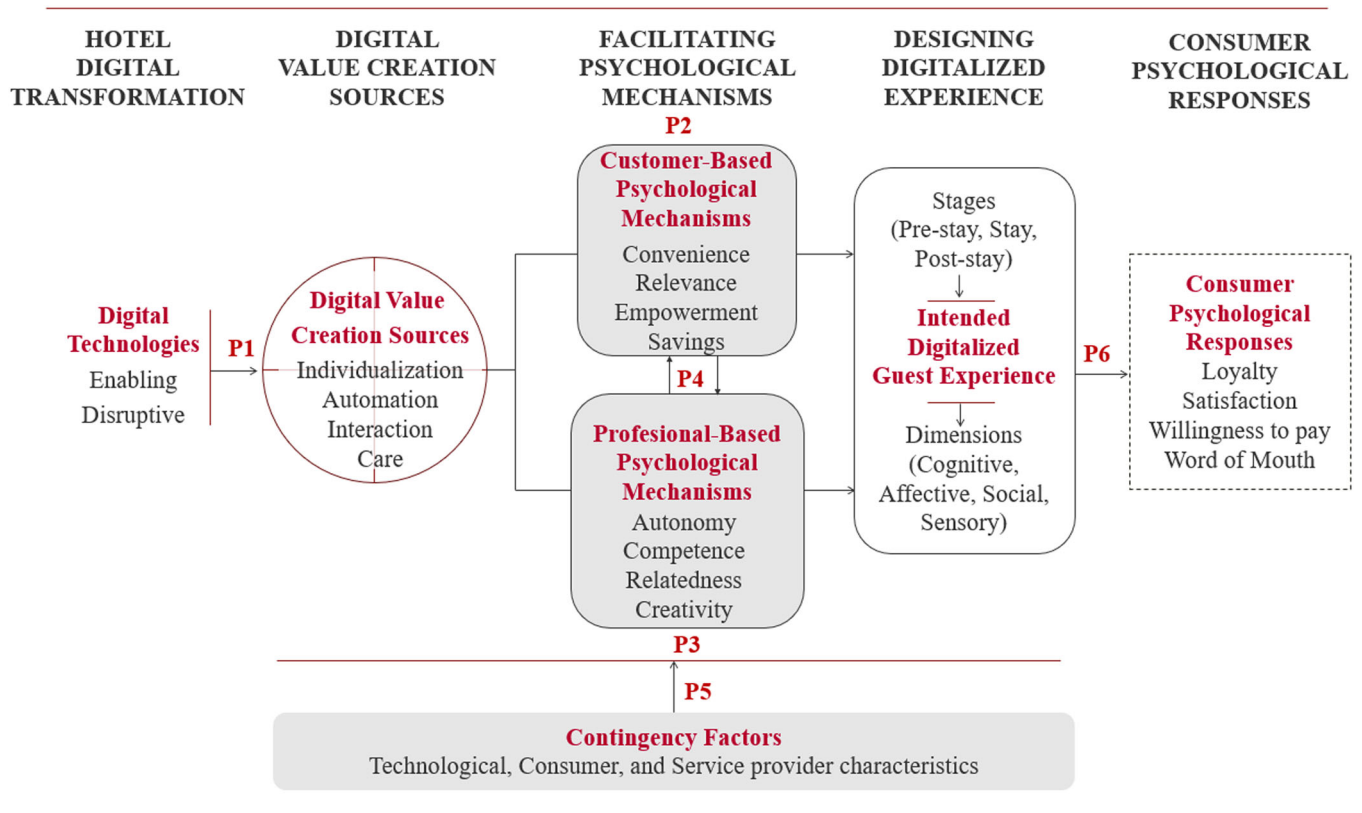


FIGURE 1 Integrative framework of the intended digitalized guest experience.

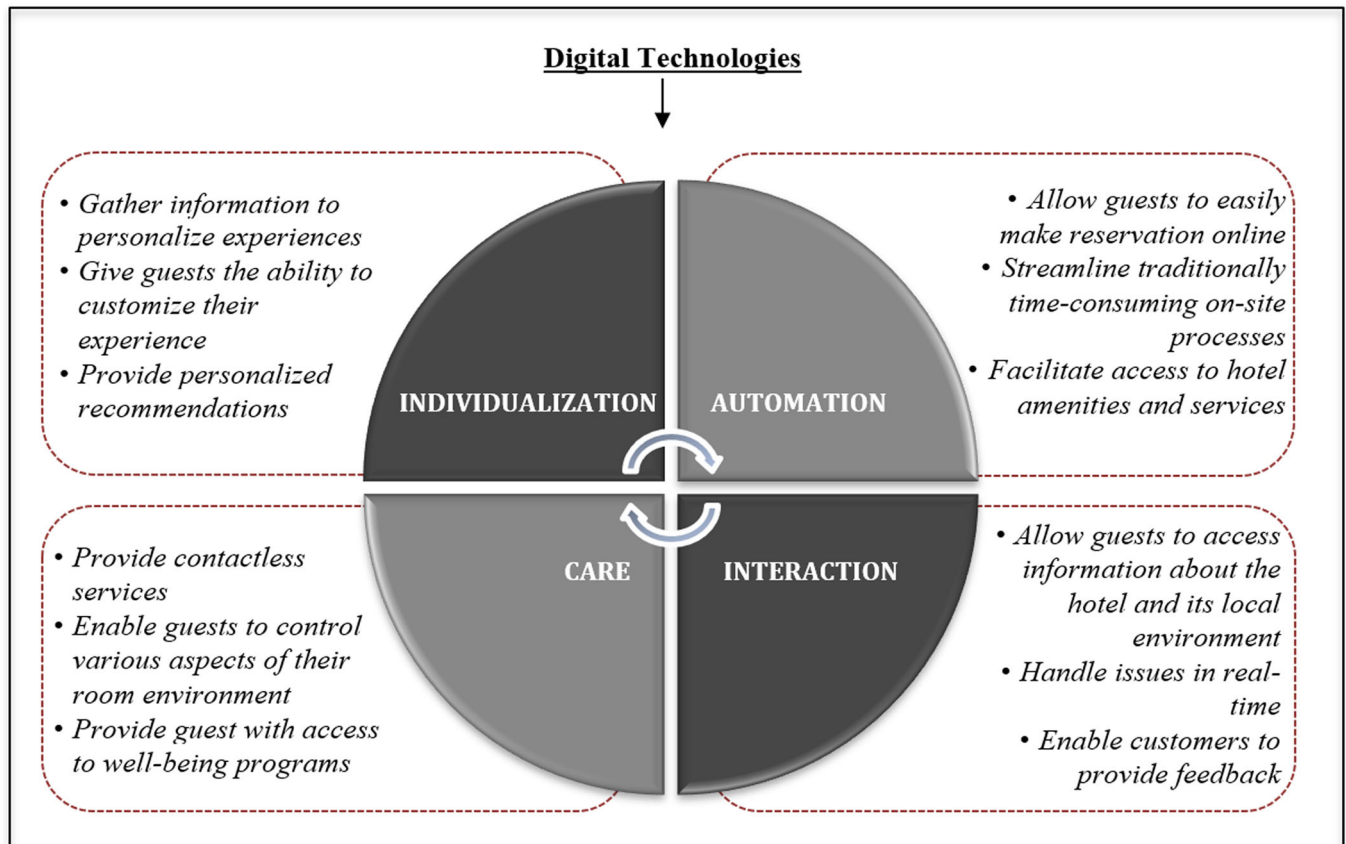


FIGURE 2 Digital value creation sources in hospitality.

automating tasks. For example, it allows guests to easily make online reservations. As mentioned by the director of Montbriand hotel and hotel De Berny, “guests want a quick and seamless booking process” (Interview F). The founder of Influence Society agency highlighted “the use of automated systems for tasks like inventory management and supply ordering, which saves time and reduces errors” (Interview B). Technology also enhances access to hotel rooms, amenities, and services. “Keyless entry systems, such as using a personalized code received upon booking, eliminate the need for physical keys,” as explained by the co-founder of MiHotel (Interview H).

Interaction refers to the social relations that occur, in both physical and virtual environments, between hotel professionals and guests, as well as among the guests themselves (Reinartz et al., 2019). First, technology allows guests to access information about the hotel and its local environment. The accommodation manager of the four-star hotel Novotel Lyon Nord highlighted their website, “which includes a dedicated section for local attractions and events, helping guests plan their days before arrival” (Interview O). Second, technology assists hoteliers in managing guest requests and addressing issues in real-time. The founder of Influence Society agency and the director of partnerships of Accor mentioned their “proactive approach in anticipating guest needs” (Interview B) and “using various tools and software, including a ticketing system, to ensure requests are resolved promptly” (Interview C). Third, technology allows guests to provide feedback on their experiences with hotels. Accor's vice president of customer experience mentioned “holding dinners with their best customers to gather feedback and insights for improvement” (Interview G). However, “it's worth noting that human interaction remains invaluable when it comes to feedback and reviews,” as mentioned by the executive assistant of the five-star hotel le Hameau Albert 1er (Interview L).

Care is a source of value thanks to the security and comfort made possible by contactless services. For instance, Neom Hotels has implemented “contactless services such as mobile check-in/check-out and a mobile app for requesting room service, reducing the need for direct staff interaction” (Interview A). The hotel director of Grape Hospitality Group mentioned “the increasing use of mobile payments through phones and watches, which benefits both guests and hoteliers” (Interview D). Moreover, technology enables guests to have more control over their room environment, such as adjusting lighting and temperature. The co-founder of MiHotel described how their “clients can control room functions from one central place using a code to activate lights and manage various buttons” (Interview H). The executive assistant of the five-star hotel Koh-I Noor mentioned that “guests can manage lights, television channels, music, order food, and contact the reception through an iPad in their room” (Interview S).

P1: Digital technologies in hospitality can enhance the intended digitalized guest experience through four sources of digital value creation: (a) individualization, (b) automation, (c) interaction, and (d) care.

4.3.2 | Consumer-based psychological mechanisms

Reinartz et al. (2019) define a cause-and-effect mechanism that links digital sources of value creation to perceived benefits for consumers. These perceived benefits represent an appropriate framework for analyzing the psychological mechanisms triggered by digital technologies—convenience, relevance, empowerment, and savings mechanisms—that emerged from the interviews with consumers (see Supporting Information: Online Appendix D). These mechanisms are presented below in the order of their importance in our interviews.

Convenience mechanisms refer to guests' assessments of the practicality of digital solutions and services provided by hotel professionals. First, respondents stressed the significant value of digital technologies for accessing information during their stay, which refers to *search convenience*. For instance, a 45-year-old man indicated: “I have to be able to watch Netflix in peace on my TV without asking anyone's permission, and it has to be easy to access” (Interview 7). Second, our data analysis highlighted the benefits of *purchase convenience*. For example, the ability to preorder meals or dishes from the menu was found to be very practical, especially by customers who are in a hurry and appreciate the time saved: “When you're on the move, you don't necessarily want to spend a lot of time at the table in the evening, so being able to order everything in advance could be practical” (Interview 11). Third, the interviews highlighted the significance of *use convenience* in various contexts, notably for accessing and entering the hotel room. For instance, a 45-year-old man emphasized the importance of easy room access by stating: “If access to that room is very easy, the hotel is very comfortable” (Interview 7).

Relevance mechanisms refers to the extent to which a product or service matches the customer's expectations, interests, and desires. First, the interviews highlight the importance of *content relevance*, which refers to the accuracy and quality of the information provided by digital technologies. For instance, a 50-year-old woman differentiated between irrelevant gadgets and meaningful information offered by hotels: “For me, there are things that can remain gadgets, but there are things that make sense, like a tablet in the hotel room because I don't have a computer or laptop to access relevant content that might be interesting” (Interview 9). Second, the interviews show the role of *functional relevance*, which refers to the extent to which a product or service fulfills guests' utilitarian needs and requirements. For example, a 50-year-old woman stated: “If you're in bed, you can raise your shutters with your phone, I think that's cool” (Interview 3).

Empowerment mechanisms refer to the feeling of control, capability, and confidence individuals experience when using digital tools (Broniarczyk & Griffin, 2014). Digital technologies provide a feeling of autonomy to guests. For example, a 57-year-old woman said: “The customer is very autonomous [...]. It's the principle of the service, it gives a kind of modernity” (Interview 15). Digital technologies also increase the power given to guests to create different atmospheres, as a 40-year-old woman stated: “There are connected lamps and I think it's very nice because it allows me to

create different atmospheres and I manage it with my phone and it's rather nice" (Interview 6).

Savings mechanisms encompass a range of digital features and services designed to reduce the time, effort, and money required from guests. A typical example of a savings mechanism is the introduction of digitalized check-in and check-out processes at reception. As expressed by a 45-year-old man, "[i]t's a long time to wait in line, for example, to get your room. I think it's a shame when you can't have a digital experience where you automatically enter your name at a terminal and automatically receive a code or right on your smartphone" (Interview 7). A 32-year-old man also stated: "Digital technology means I don't have to go down to the reception desk to see when the pool is busy" (Interview 10).

P2: *Digital technologies in hospitality can enhance the intended digitalized guest experience through four customer-based psychological mechanisms: (a) convenience; (b) relevance; (c) empowerment; and (d) savings.*

4.3.3 | Professional-based psychological mechanisms

The accounts gathered from the interviews with hotel professionals (see Supporting Information: Online Appendix E) resonate with the principles put forth in the self-determination theory, namely autonomy, competence, and relatedness (Ryan & Deci, 2000). This theory is particularly relevant for explaining psychological mechanisms at work, as it identifies the individual motivations that help explain people's perceptions and behaviors in the workplace. Content analysis also enabled us to identify a new psychological mechanism, which corresponds to creativity. This is consistent with the work of Amabile (1983) who defines creativity as employees' original and possibly valuable ideas related to new products or services.

Autonomy is a critical aspect for hotel professionals, as it addresses their desire for purpose and the ability to make choices at work (Ryan & Deci, 2000). In hospitality, digital technologies play a pivotal role in streamlining operations, granting professionals access to valuable information, and fostering personal autonomy in their roles. This increased autonomy empowers hotel employees to allocate their time toward delivering personalized services. For instance, in the interview with the founder of the Influence Society agency, an example was shared regarding the proactive initiative a bartender could take with the support of technology and sufficient time to dedicate to guests: "At 6:00 p.m., we observed that Alexandra had previously shown a preference for a specific type of cocktail while enjoying the poolside atmosphere. The bartender is aware that Alexandra is currently present at the hotel. This situation calls for timely action. Utilizing technology can be instrumental in addressing this issue and delivering a personalized experience to Alexandra" (Interview B).

Competence pertains to the needs of hotel professionals to feel effective and capable in their interactions with the environment, specifically in relation to guests (Ryan & Deci, 2000). Technology

plays a crucial role in enabling hotel professionals to enhance their competence by making tasks and processes more efficient and cost-effective. This, in turn, allows them to focus on qualitative and human-centric tasks while alleviating them from tedious and recurring responsibilities that they may not find enjoyable. According to the director of partnerships of Accor Hotel group, "[t]his shift in responsibilities provides employees with more time and energy to dedicate to tasks that create greater value for customers" (Interview C). To further promote competence, it is vital to ensure that staff members receive comprehensive and rigorous training in utilizing the specific technology at their disposal and gathering targeted data for delivering personalized services. As stated by the director of business development of Grape Hospitality Group, "[t]he training of hotel staff must adapt to their changing roles, enabling them to effectively collaborate with technology" (Interview E).

Relatedness is a significant factor that motivates hotel professionals to establish a sense of connection, empathy, and appreciation in their interpersonal interactions with guests (Ryan & Deci, 2000). The digital technologies enable hotel professionals to better manage their workload and prioritize meaningful client interactions over mundane tasks. The director of partnerships at Accor characterizes the hotel industry as "an evolving industry, where technology and human interaction go hand in hand" (Interview C). Technology serves as a catalyst for *creativity* among hotel professionals. By providing tools and software that facilitate and expedite their work, digital technologies enable employees to develop new techniques and enhance their productivity by working faster and more creatively. The executive assistant at the five-star hotel Koo-I Nor states that "[d]igital technologies are about anything that can help our customers, but also those who work, the employees, to work better, to make their jobs easier and to allow them to develop new work techniques" (Interview S). The business development director of Neom hotels emphasizes "[t]he significance of stimulating creativity, not only in marketing campaigns but also among the staff. By delivering unique and innovative digital campaigns, hotels can leave a lasting impression on customers" (Interview A).

P3: *Digital technologies in hospitality can enhance the intended digitalized guest experience through four professional-based psychological mechanisms: (a) autonomy; (b) competence; (c) relatedness; and (d) creativity.*

4.3.4 | Reciprocal influence of psychological mechanisms

The reciprocal influence of psychological mechanisms between hotel professionals and guests is based on the interdependence of their relationship. Their interactions, fueled by digital technologies, create a virtuous cycle that enhances the intended digitalized guest experience. It is important for hotel professionals to recognize the significance of these consumer-based psychological mechanisms and proactively engage with guests. *Empathic understanding* is a cornerstone of customer experience design, as shown by the recent work of

Surma-Aho and Hölttä-Otto (2022). For example, Accor Austria's Director of Partnerships stresses the importance for hospitality professionals to recognize and understand their customers' emotions associated with their digital experience: "The disappointment one might feel when faced with a malfunctioning touchpoint or robot, as the limitations of machines in handling emotions become more apparent, whereas human staff possess empathy and a capacity for critical thinking" (Interview C). Reciprocally, we propose that empathic understanding also helps guests to recognize professional-based psychological mechanisms at the hotel in question. For example, a 40-year-old woman emphasized the importance of emotion recognition in operationalizing the guest experience: "Artificial intelligence will never supplant, so to speak, the emotion created by a human being" (Interview 14).

P4: *Professional-based psychological mechanisms can influence customer-based psychological mechanisms, and vice-versa.*

4.4 | The role of contingency factors

Contingency factors encompass various elements likely to have a significant influence on the design of digitalized guest experiences. Three main categories emerged from the interviews as contingency factors in hospitality, either related to the categories of (1) digital technology characteristics, (2) consumer characteristics, or (3) service provider characteristics. These categories are aligned with the classification used in previous research on disruptive technologies (Belanche et al., 2020b). Illustrative quotes associated with each category are synthesized in Supporting Information: Online Appendix F.

4.4.1 | Digital technology characteristics

The interviews revealed that the effectiveness of digital technologies in enhancing the intended digitalized guest experience depends on seven digital technology characteristics, presented below according to their importance in our interviews.

Dehumanization

Most respondents expressed concerns about the potential dehumanization of the hotel experience, which echoes the importance of humanness as a significant feature of digital technologies (e.g., Belanche et al., 2021). The assistant manager of the five-star hotel Le Hameau Albert 1er highlighted "[t]he importance of attentive customer service to avoid dehumanization. Customers may be scared if the experience becomes too digital. That's why it's important to have customer service that listens and provides a real person" (Interview L). In other words, the successful implementation of digital technologies relies on finding a good balance between digital and human interactions. The pricing director of the four-star Best Mont Blanc Hotel emphasized that "[d]igital technology should not replace human contact: I believe it's crucial to maintain a balance

to reassure our customers. Digital should not overshadow the human aspect" (Interview U). The assistant manager of the five-star hotel Le Hameau Albert 1er emphasized how technology can sometimes misinterpret guests' needs: "If we rely too much on artificial intelligence to determine a guest's preferences based on their daily habits, we might miss important details" (Interview L).

Immediacy and reliability are further requirements in the successful implementation of digital technologies in hospitality, as suggested by De Kervenoael et al. (2020). Guests expect fast and seamless experiences without delays. To increase customer satisfaction, the hotel director of Grape Hospitality mentioned the importance of providing "high-quality wi-fi" (Interview D). The business development director of Neom hotels stated: "We have high-speed internet. For customers in any case, the Internet works very well" (Interview A). In contrast, the lack of reliability is experienced negatively by guests, as the partnership director at Accor shared with us: "It's a disaster when you have an artificial intelligence that doesn't work in the same way, it's a disaster" (Interview C). These verbatims emphasize the importance of a dependable and high-speed Internet connection as a crucial factor in achieving effective digitalization.

Ease of use of technology was identified as a necessary condition for the success of its implementation, as suggested in the literature (e.g., Belanche et al., 2021; Flavián et al., 2019). As an illustration, the marketing director of MiHotel described how their Bluetooth systems exemplify ease of use of digital technologies: "When guests enter our suites, they find Bluetooth systems set up, just like the ones they have at home. The key is simplicity" (Interview H). All respondents emphasized the importance of technology being user-friendly and intuitive to optimize the customer experience. The general manager of Montbriand hotel and Hotel De Berny mentioned that "guests appreciate simplicity" (Interview F).

Ethics and confidentiality

The interviewees also highlighted the need for ethical and confidential data management, as indicated in the literature (e.g., Belk, 2021; Song et al., 2021). The director of partnerships at Accor Austria stressed the importance of "securing personal information and respecting customer privacy" (Interview C). Some respondents also mentioned the ecological impact of digital technologies as a concern, such as the executive assistant of the five-star hotel Le Hameau Albert 1er: "Consideration of these costs is essential when evaluating the overall impact of digitalization on the customer experience" (Interview L).

Consistency and coordination

Another significant factor is the consistency of technology across different channels, in line with the importance of a seamless customer journey in guest experience design (e.g., Lemon & Verhoef, 2016; Verhoef et al., 2009). The founder of Influence Society stressed the importance of "integrated systems that work seamlessly together" (Interview B), while the executive assistant at Le Hameau Albert 1er highlighted that "coordination across channels is necessary

in enhancing guest experience" (Interview L). Additionally, the director of partnerships at Accor Austria emphasized the need for "collaboration between departments and vendors" during the implementation of digital technologies (Interview C).

Meaningfulness of technology

The meaning and utility attributed to the technology is another important contingency factor noted in the technology literature (e.g., Flavián et al., 2019). The co-founder of Mihotel Lyon stated the significance of prioritizing the customers' needs above all else, emphasizing the essentiality of customer-centricity in the context of technology implementation: "We must always prioritize what is essential, and that is, the customer" (Interview H). Some respondents expressed concerns about the gadgetry of digital technologies, such as the receptionist at the five-star Cheval Blanc hotel, who pointed out that "the excessive focus on technology can undermine the essence of hospitality" (Interview N).

4.4.2 | Consumer characteristics

Five consumer characteristics emerged as factors that can influence the impact of digital technologies on the intended digitalized guest experience. These factors are discussed below according to their importance in our interviews.

Age

The age of the guest emerged as the most prominent factor influencing the effects of digital technologies on the intended guest experience, aligning with findings reported in the literature (e.g., Flavian et al., 2022). Younger guests were found to be more inclined to appreciate and utilize new technologies compared to older guests, who often exhibited resistance and difficulty in adopting them. The co-founder of Mihotel mentioned that their clientele "primarily consists of young individuals, with more than 40% of clients under 40 years old and 20% in the 18–24 age range," highlighting "the preference for digital experiences among the younger demographic" (Interview H). The VP of global customer experience at Accor expressed that "the younger generation seeks experiential offerings and finds traditional hotels less appealing, leading to the development of concepts like Joe & Joe and youth hostels in collaboration with Accor" (Interview G).

Luxury versus nonluxury segment

Distinguishing between luxury and nonluxury segments was found to impact the demand and preference for connected or technological solutions. The chef de rang at the five-star hotel Jiva Hill remarked that "connected hotels may not always satisfy customers, as luxury guests often prefer personalized service and being pampered rather than relying on autonomous technology." He cited an example where customers encounter difficulties when using QR codes to access menus and prefer to have physical menus provided (Interview T).

Similarly, the chef de rang at the five-star hotel La Co(o)niche stated that "while a business traveler may be willing to pay a small fee to expedite processes and reduce paperwork, luxury hotel guests on vacation would not prioritize such conveniences" (Interview K).

Culture and country of origin

In line with the literature (e.g., Belanche et al., 2020b), the culture and country of origin of guests were identified as influencing the impacts of digital technologies on the intended guest experience. The executive assistant at the five-star hotel Le Hameau Albert 1er emphasized that "receptiveness to digital technologies can vary across nationalities, with Europeans generally being more receptive and North Americans exhibiting similar tendencies" (Interview L). Other interviewees highlighted the diversity of customers and cautioned against universalizing experiences at a global level. The director of partnerships at Accor Austria acknowledged that "expectations and preferences differ based on brands, cultures, and the habits of customers from various regions such as Asia and the United States" (Interview C). Additionally, Japan was cited as a country where disruptive technologies are prevalent in hotels. The sales manager of the Lavatorel Hotels group mentioned that "in Japan, hotels with robot receptionists are gaining popularity, with some customers finding it appealing despite the unusual nature of the experience" (Interview N).

Leisure versus business segment

The purpose of the hotel stay, whether for leisure or business, was found to potentially influence the effects of digital technologies on the guest experience. Business travelers were observed to have higher expectations regarding the presence and efficiency of digital technologies compared to leisure guests. The account sales manager at the four-star Westin hotel Paris-Vendôme emphasized the "importance of speed and digital technology for business travelers, as they require fast access to information" (Interview V). The vice president of customer experience at Accor added that "specific expectations arise during business trips, where customers seek efficiency and a seamless experience, whereas leisure trips prioritize a more relaxed atmosphere and the satisfaction of family members" (Interview G).

Privacy concerns

Trust has emerged as another significant factor influencing the perception of digital technologies in hotels, which aligns with research on privacy concerns related to digital technologies (e.g., Song et al., 2021). Some customers expressed fear and concern regarding technology. However, hotels address these concerns by implementing privacy policies and requiring guests to sign privacy agreements, assuring them that their data will remain confidential. The founder of Influence Society noted that "privacy becomes even more crucial in luxury establishments, where guests paying high prices expect their private lives to be respected and protected" (Interview B).

4.4.3 | Service provider characteristics

The respondents highlighted four contingency factors related to service provider characteristics, outlined below according to their importance in our interviews.

Implementation costs

The costs of digital technology implementation are significant barriers for some hotels and large hotel groups. According to the director of the four-star hotel Novotel Dijon, the moderate diffusion of digital technologies to design guest experience can be attributed to the "high cost of implementing digital technologies" and the fact that "many hotels that are not ready to take them on" (Interview Q). The director of marketing at MiHotel also explained that "the implementation of digital technologies requires a complete overhaul and requires investing millions of euros" (Interview H).

Hotel infrastructure

Another contingency factor is related to hotel infrastructure. As noted by MiHotel's co-founder, implementing digital technologies "requires a big infrastructure" and "[i]t requires redoing everything and investing millions of euros, just to open the doors" (Interview H). The hotel director of Grape Hospitality Group highlighted that upgrading infrastructure, such as improving Wi-Fi connectivity by replacing antennas, can be costly but necessary (Interview D). Additionally, "optimizing the accessibility of property management system software" was identified as an area for improvement by the general manager of Montbriand hotel and Hotel De Berny (Interview F).

Hotel resistance to change

Resistance can act as a significant barrier to the implementation of digital technologies in hospitality. The executive assistant at the five-star hotel Le Hameau Albert 1er shared that "internal resistance stems from established hotel practices and the fear of job losses due to complete digitalization. Moving from manual, traditional processes to fully digitized systems can be intimidating and seen as a potential breaking point" (Interview L). The founder of Influence Society agency expressed the need for traditional hotels to decrease their resistance to change and increase their agility by adopting new technologies more quickly: "Today we need agility, we need to go much faster. And why don't they do it? Well, it's a bit more work to get used to new tools, but that's what you're here for too" (Interview B).

Hotel authenticity

The implementation of technological solutions needs careful consideration to maintain their authenticity. The director of marketing at MiHotel noted: "While some guests may prefer technologically advanced hotels like MiHotel, others seek a more traditional experience. These preferences can coexist, with guests choosing different options for different occasions, making the hotels complementary rather than competing" (Interview H). The founder of

Influence Society agency added that "some older guests, who value tradition, may not be receptive to technology such as QR codes" (Interview B).

P5: (a) *Technology characteristics*, (b) *service characteristics*, and (c) *consumer characteristics can hinder the processes through which digital technologies enhance the intended digitalized guest experience*.

4.5 | Consequences of intended digitalized guest experience

The interviews highlighted four outcomes associated with the intended digitalized guest experience, which are commonly mentioned in the literature on digital technologies in hospitality. These outcomes include loyalty (e.g., Belanche et al., 2021; Schepers et al., 2022), satisfaction (e.g., Ibáñez-Sánchez et al., 2022), willingness to pay (e.g., Bolton et al., 2014), and word of mouth (e.g., Belanche et al., 2021; Ibáñez-Sánchez et al., 2022).

4.5.1 | Loyalty

The interviewees emphasized the importance of designing a digitalized guest experience that will enhance customer loyalty. One observation came from the receptionist at the five-star hotel Château de Fonscolombe, who highlighted "the time-saving and loyalty-building benefits of utilizing social media" (Interview J). Similarly, the entertainment manager at the Hotel Le Royal in Evian noted that their establishment "enjoys the patronage of loyal customers who return each year," a phenomenon attributed to their "strong digital presence" (Interview I). According to the executive assistant at the five-star hotel Le Hameau Albert 1er: "[T]he best possible scenario is loyalty" (Interview L).

Satisfaction

Satisfaction is a key outcome of the intended digitalized guest experience. For example, the chef de rang of the five-star La Co(o)niche hotel revealed that "the strategy we will focus on is maximizing guest satisfaction during their stay with us" (Interview K). The vice president of customer experience at Accor also noted: "I think that it is very quickly in our interest to link customer satisfaction to the end of a stay in order to bring them back right away and to offer them either another stay or another experience" (Interview G).

Willingness to pay

The interviewees mentioned the possibility that guests might be willing to pay a higher price for a more connected stay, but only in the case of a business stay, as the chef de rang of the five-star hotel La Co(o)niche mentioned: "If I have to pay €5 more [for a business stay] to make it faster and to have less paperwork to fill out, I will totally pay it. But conversely, if I come on vacation and I'm in a luxury hotel and it's to talk to people or see them, I don't think I'm going to pay more" (Interview K). The account sales manager of the four-star hotel

Westin Paris-Vendôme stated that “when everything is connected, it shows that the hotel is up to date, that it is renewing itself, and this can increase the hotel's standing and the willingness to pay for this standing” (Interview V).

Word of mouth

The respondents emphasized the impact of recommendations. The VP of Global Customer Experience at Accor highlighted that “Recommendations shared between individuals such as colleagues or family members will continue to be the most influential factor. Ultimately, our objective is to encourage this word-of-mouth effect” (Interview G). Similarly, the Business Development Director of Grape Hospitality Group acknowledged that “having a negative rating can significantly hinder the ability to sell a hotel through online channels” (Interview E).

P6: *Intended digitalized guest experiences should increase consumer psychological responses.*

5 | DISCUSSION

5.1 | Theoretical contribution and research agenda

By integrating both theoretical and practical viewpoints, we propose a conceptualization of the *intended digitalized guest experience*. In addition, we have developed a set of six propositions that contribute to the development of an integrative framework of the intended digitalized guest experience, as well as its antecedents (digital value creation sources, professional- and consumer-based psychological mechanisms), consequences (customer psychological responses), and contingency factors (technology, consumer, and service provider characteristics). This research enriches the literature on CEM and digital transformation in hospitality in several ways, which we detail below. Table 1 provides a research agenda to stimulate and guide future research on designing the intended guest experience.

First, this research shows the relevance of the conceptualization of the intended digitalized guest experience. That relevance goes beyond the predominant dimension-oriented approach (Waqas et al., 2021) by combining it with the stage-oriented approach (Lemon & Verhoef, 2016), as recommended by Hoyer et al. (2020). Highlighting the different stages of the intended digitalized guest experience helps to better understand the concept, and provides guidelines for better measuring it throughout six touchpoints: *decision and purchase processes* (prestay), *reception and check-in and service offer* (stay), and *departure and check-out and guest feedback* (poststay). As with stages, this research provides insights regarding the classical dimensions of customer experience—*affective, cognitive, sensory, and social*—(Becker & Jaakkola, 2020). The analyses revealed a particularly important role for the affective and sensory dimensions (35% and 31% of the recorded statements, respectively), compared with the social and cognitive dimensions (19% and 15% of statements, respectively). The analyses add new insights into how affective and social dimensions have been apprehended in the literature. The

affective dimension was mainly understood from the angle of pleasure and entertainment (Becker & Jaakkola, 2020), especially in the digital domain (Bleier et al., 2019; Jeannot et al., 2022). An illustration of this traditional conceptualization of the affective dimension lies in recent work on the beneficial effects of gamification in hospitality (Huotari & Hamari, 2012). Nevertheless, our analyses have shown that another emotional affect caused by surprise is particularly important in hospitality. This echoes recent work on the *strategic marketing of surprise*, which aims to capture consumers' attention and interest by offering them unexpected and memorable experiences or messages (Kovacheva et al., 2022). The social dimension has also shed new light on the conceptualization of the intended digitalized guest experience. The social dimension is traditionally described in terms of social presence, including *warmth, sociability and a sense of human contact* (Bleier et al., 2019, p. 101). Our results highlight that there is also, for some consumers, the search for an absence of interaction, which could be added to the current conceptualization of the social dimension. From a theoretical point of view, this invites us to consider the social dimension beyond its positive nature and to integrate the identification of an optimum to be attained.

Second, we identified four sources of digital value creation, namely individualization, automation, interaction, and care. Individualization, automation, and interaction are part of Reinartz's et al. (2019) framework on the impact of digital transformation on the retail value chain. We confirm the relevance of these three sources of value in a new context, hospitality. The analysis indicates that *individualization* refers to gathering information to customize experiences, enabling guests to personalize their own experiences, and providing personalized recommendations and rewards to customers. *Automation* revealed itself in hospitality via the hotels' ability to deliver seamless online reservation systems, streamline time-consuming on-site processes, and provide guests with convenient access to hotel services. Our results also show that *interaction* in hospitality consists of providing guests with access to information about the hotel and its local environment, facilitating real-time handling of requests, and empowering guests to share feedback and reviews about their hotel experience. We complement Reinartz's et al. (2019) framework by considering *care* as another source of digital value creation. We suggest that care encompasses giving attention, support, and consideration to the well-being, comfort, and respect of others and the environment. Specifically, it involves showing empathy and attentiveness to meet guests' needs and expectations.

Third, this research uncovers two distinct and interconnected psychological mechanisms, based on consumers and hotel professionals. These psychological mechanisms are based on two streams of research, which are Reinartz's et al. (2019) framework for consumer-based psychological mechanisms (i.e., convenience, relevance, empowerment, savings) and CEM's works in hospitality (Kandampully et al., 2018; Rahimian et al., 2021) for professional-based psychological mechanisms (i.e., autonomy, competence, relatedness, and creativity). The proposed mechanisms and their interaction are based

TABLE 1 Research agenda for advancing the integrative framework of the intended digitalized guest experience.

Key topics	Research questions	Managerial challenges
Conceptualizing the intended digitalized guest experience	What are the suitable metrics and indicators for measuring the intended digitalized guest experience to grasp the concept in all its complexity, taking into account its structuring in stages and dimensions?	Measuring and monitoring the intended digitalized guest experience to develop innovative strategies.
	What are the gaps between the guest experience as designed by hotel professionals and how consumers actually experience it? How significant are these gaps in influencing consumer responses?	Identifying and managing customer experience gaps between the intentions of hotel professionals and the perceptions of guests.
	How can we integrate the absence of social interaction and surprise and their specificities in the design of the digitalized guest experience?	Creating balanced social interactions and positive surprises to enhance guest satisfaction, loyalty, word-of-mouth, and willingness to pay.
Understanding digital sources of value creation	How do the sources of digital value creation influence, individually and in combination, the intended digitalized guest experience and their perceptions of the hotel's overall value proposition?	Articulating the different sources of digital value to renew the guest experience.
	What care elements can be stimulated to design and enhance the intended digitalized guest experience?	Implementing care as a source of digital value creation, delivering and communicating care-driven experiences.
Exploring the psychological mechanisms for both guests and hotel professionals	How can empathy between customers and hospitality professionals enhance the development of digital customer experience, in particular ideation and creative outcomes?	Providing guidelines for creative real-time digitalized experiences for guests.
	How can we better articulate both consumer- and professional-based mechanisms using a dyadic and longitudinal method?	Developing interpersonal synergies between hotel professionals and guests to reinvent the intended digitalized guest experience.
Identifying boundary conditions for the design and implementation of digitalized guest experience	What is the relative importance of technology, consumer, and service provider characteristics in the digitalization process of the guest experience?	Prioritizing and leveraging factors that influence the digitalization process of the guest experience.

on a comprehensive study of the literature and empirical data collected from both consumers and hotel professionals, as suggested by Iranmanesh et al. (2022). Our results confirm the relevance of the theoretical frameworks chosen for the analysis. Concerning consumer-based mechanisms, we propose an empirical and concrete adaptation of four mechanisms identified by Reinartz et al. (2019). With regard to professional-based mechanisms, we provide an adaptation and contextualization of these mechanisms for the hotel industry. In line with research on organizational creativity at work (Amabile, 1983), we also identified the creativity of hotel professionals as a key mechanism requiring special attention in designing digitalized guest experiences. Moreover, recognizing the reciprocal influence between the psychological mechanisms of professionals and consumers allows us to deepen our understanding of the antecedents of the digitalized guest experience, with an emphasis on empathic understanding that is mutually beneficial.

Fourth, in line with the recommendation of Becker and Jaakkola (2020), this research provides a better understanding of the contingency factors that may hinder the benefits of digital

technologies for the design of the intended customer experience. The analysis revealed a particularly important role of digital technology characteristics, which accounted for 46% of the verbatims, followed by consumer characteristics (33%) and service provider characteristics (21%). Our results propose an overview based on verbatim statements that highlight numerous factors in hospitality that are generally studied in a scattered way in empirical studies. This shows the complexity of designing and implementing a digitalized guest experience to ensure its success in terms of loyalty, satisfaction, willingness to pay, and word of mouth. As Becker and Jaakkola (2020) point out, identifying these factors helps to limit discrepancies between the *intended* digitalized guest experience and the *realized* digitalized guest experience.

5.2 | Managerial implications

From a practical standpoint, this study provides guidance for hoteliers to design a digitalized experience for their guests. It is

important that hotel professionals recognize the role of digital technology in facilitating their internal processes and enhancing guest experiences.

5.2.1 | Designing a game-like digitalized guest experience

Gamification strategies in hotels, using digital technologies, are promising approaches to meeting the objective of creating surprises for guests and making the overall experience more unique and memorable. Marriott's Moxy hotels have recently implemented a gamification strategy focused on augmented reality to enhance the guest experience (William, 2022). This is especially important as our lives increasingly become "game-like" and this represents a good opportunity for hoteliers to use insights from gaming, which is known for its ability to engage people in a positive experience (Koivisto & Hamari, 2019). For instance, *before the guest's arrival*, the hotel can provide an interactive website featuring virtual tours, quizzes, or enigmas, as well as a personalized trip planner accessible through virtual assistants. *During the guest's stay*, hotel staff can offer mystery and themed dinners in the restaurant, or provide special gifts and surprises in the rooms based on the preferences specified in the guests' personal accounts. *After the guest's departure*, the digital interface can help encapsulate memories of their stay, in accordance with privacy guidelines and the guests' preferences.

5.2.2 | Developing "care" as a new source of digital value creation

Although the notion of care in the hotel industry is highly developed, especially when it comes to guests, and serves as an example for other sectors, there is still progress to be made to integrate it further with other sources in the use of digital technologies. The "care" dimension now extends to employees, who increasingly need to be taken care of to be attracted and retained. Initiatives in this direction could be supported by digital tools and human resources marketing practices, which aim to enhance employees' well-being at work, ultimately benefiting the guest experience. The Hilton hotel chain serves as a notable example, *being empowered by its employees* and fostering a culture that *treats them with the same hospitality as staff treat hotel guests* (Hafen et al., 2020). To reduce the need for staff involvement, hotels can also integrate sensors in the rooms that allow guests to autonomously monitor and adjust the temperature or lighting, ensuring better comfort in accordance with their preferences.

5.2.3 | Training the staff to enhance their creativity

Educating employees on digital technologies is important, as it can bring more autonomy, competence, and relatedness, allowing staff to

be more creative. This creativity enables the delivery of convenient, relevant, empowering, and time-saving services throughout the customer journey, as our findings suggest. To accomplish this objective, we suggest that hotel professionals embrace a cocreative team approach rooted in design thinking. This approach consists of three key phases (Dampérat et al., 2019): (1) defining needs, (2) generating ideas, and (3) prototyping the solution. A recent research study emphasized the advantageous synergy between design thinking and the concept of care, referred to as *caring design*, as outlined by Hamington (2019). We advocate for the adoption of caring design principles by hotel professionals, fostering a deeper integration of care into their professional practices.

5.2.4 | Creating an optimal environment for enhanced digital guest experiences

One of the key findings of this study is that the role of digital technology varies and needs to be tailored to each hotel and customer to manage the intended guest experience. Considering contingency factors (i.e., technology, consumer, and service provider) is crucial for effective *smart guest experience management*. Digital technologies can help hotel professionals work with hotel guests to ascertain the appropriate way to interact with them, to avoid both too much or too little social interaction. To manage a favorable environment for high (vs. low) social interactions highlighted in our results, *permission marketing* could provide valuable insights by specifically asking customers for their authorization to interact (or not) with a service provider (Krafft et al., 2017). Our suggestion is to customize the human-computer interface, such as websites and applications, to cater to the unique requirements of the guests. This customization could be achieved through the implementation of e-personalization technologies, which can operate based on either explicit or implicit user preferences and behaviors.

6 | CONCLUSION

Digital technologies in hospitality are increasingly acknowledged as valuable assets for gaining a competitive edge, yet their integration poses challenges for an industry that traditionally prioritizes human interaction and personalized experiences. Despite existing research examining the effects of digital technologies on the realized guest experience, there remains a gap in understanding their impact on the intended guest experience as envisioned by hoteliers. This research has helped to fill this gap through a conceptualization of the intended digitalized guest experience and an integrative framework that encompasses the mediating and reciprocal role of consumer- and professional-based psychological mechanisms, along with antecedents, outcomes, and contingency factors. Through interviews with hotel professionals and consumer informants, the study proposes six propositions and offers directions for further research.

DATA AVAILABILITY STATEMENT

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

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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APPENDIX A

Interview guide for interviews with the professionals:

1. Can you introduce yourself?
2. If I say to you “customer experience,” what do you think of? How important is it in the hotel industry?
3. What do you think are the different components of a successful customer experience in the hotel industry? Can you illustrate your point?
4. What levers can be activated to offer the best possible experience to your customers?
5. How important is digital technology in the hotel industry today? What are some examples? What role will it play in the future?
6. What do new technologies (especially artificial intelligence [AI]) bring to the customer experience and journey in the hotel industry? What have they changed? Have they changed them in a positive way or in a negative way?
7. How would you position the online and offline customer journey in the hotel industry?
8. What digital devices have been recently implemented? Have you adopted them as well? If so, why did you choose them?
9. What are the pros and cons of AI-based devices in your industry?
10. How can digital technology influence the guest experience in a hotel?

11. How might consumers react to a digital element?
12. What parameters can change customer reactions to digital techniques?

Interview guide for interviews with the consumers:

1. Could you share some details about yourself, such as your age, profession, and travel preferences?
2. Have you had the opportunity to stay at high-end or luxury hotels before?
3. Please share your experiences regarding the technological features available in these hotels. What types of technology did you encounter?
4. How did you generally react when you encountered advanced technologies in a high-end or luxury hotel?
5. In what ways have these new technologies influenced your experience as a guest?
6. What specific expectations do you have regarding the integration of new technologies in high-end hotels?
7. What advantages or benefits do you anticipate gaining from the use of advanced technologies during your hotel stay?
8. Are there any particular technologies that you would like to see implemented in high-end hotels? If so, why do you believe they would be beneficial?
9. Does the utilization of digital technologies in a high-end or luxury hotel impact your decision to book or recommend the establishment to others? If so, why?
10. From your perspective, do you believe that high-end hotels should allocate more resources toward implementing new technologies? Why or why not?

APPENDIX B

Interview#	Establishment	Function
A	Neom Hotels	Director of Business Development
B	Influence Society Agency	Founder
C	Accor Austria Hotel Group	Director of Partnerships
D	Grape Hospitality	Hotel director
E	Grape Hospitality	Director of Business Development
F	Four-star Hôtel MontBriand and Hôtel De Berny	General manager
G	Accor Hotel group	VP Global Customer Experience
H	MiHotel Lyon (100% digital hotel)	Director of Marketing Co-Founder
I	Five-star hotel Royal	Entertainment manager
J	Five-star hotel Château de Fonscolombe	Receptionist
K	Five-star hotel La Co(o)rniche	Chef de rang
L	Five-star hotel Le Hameau Albert 1er	Executive assistant
M	Lavatorel Hotels Lyon	Sales manager
N	Five-star hotel Cheval Blanc	Receptionist
O	Four-star hotel Novotel Lyon Nord	Accommodation manager
P	Five-star hotel Marriott International	Director of Revenue Management
Q	Four-star hotel Novotel Dijon	Director
R	Four-star hotel Manotel Hotel	Marketing director
S	Five-star hotel Koh-I-Noor	Executive assistant
T	Five-star hotel Jiva Hill	Chef de rang
U	Four-star hotel Best Mont Blanc	Pricing director
V	Four-star Westin Paris-Vendôme	Account sales manager

TABLE B1 Sample composition for interviews with professionals.

TABLE B2 Sample composition for interviews with consumers.

Interview#	Age	Gender	Function
1	52	Man	Sales manager
2	52	Woman	Fashion manager
3	50	Woman	Self-employed entrepreneur
4	29	Man	IT project manager/trainer
5	47	Woman	Charterer
6	40	Woman	Sales manager
7	45	Man	General manager
8	26	Woman	Pharmaceutical representative
9	50	Woman	Information systems engineer
10	32	Man	Manager
11	48	Man	Regional manager
12	25	Man	Salesman
13	24	Woman	Community manager
14	40	Woman	Permanent professor
15	57	Woman	Self-employed entrepreneur
16	32	Man	Manager
17	23	Woman	Recruitment assistant
18	29	Woman	Sales manager