

Elevating Customer Experience using Interaction Management Approach in the Indian Hospitality Industry

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Abstract *Customer experience has been a central component in hospitality management literature since it is pivotal to the success of the service industry. Customer experience facilitates service providers with an effective tool for competitive advantage, differentiation, and generating valuable customer relationships. Based on the customer experience concept and its demonstrated relevance, the study investigates the customer experience dimensions: physical interaction, human interaction, and digital interaction. The moderating role that hotel image has in the relationship between customer experience and brand loyalty is also explored in this study, along with the impact of customer experience and its aspects on brand loyalty. 360 customers/guests were surveyed via both online and offline questionnaires as part of this study using a purposive sampling technique. Using structural equation modelling, the proposed relationships were tested, which suggests that the dimensions of customer experience influence brand loyalty. The main dimension impacting brand loyalty is the human interaction dimension, followed by physical and digital interaction. These results contribute handsomely to experiential marketing literature by adding new insights into the existing body of knowledge and also building a further understanding of the customer experience management concept that assists in managerial decision-making. By emphasising their customers' experiences, this study adds to the knowledge already known about the interaction management approach in the hospitality sector. It makes suggestions for how to consider it when increasing brand loyalty. This study will be immensely useful for marketing practitioners and provide avenues for further research.*

Keywords: *Customer Experience, Physical Interaction, Human Interaction, Digital Interaction, Hotel Image, Brand Loyalty, Luxury Hotels*

INTRODUCTION

One of the key forces behind the expansion of India's services sector is the country's hospitality sector. One of the key industries driving India's economic growth is the hospitality sector, which is led by the hotel market. The hospitality industry is more likely an experience-based service industry.

There has been growing consideration given to the customer experience as a key idea in the literature on hospitality and tourism. Consumption in the hospitality industry is mostly about the experience itself because many hospitality businesses offer services that are fully experiential in nature, and clients have the aim of gaining an experience. Many conclusions concerning the experiential character of hospitality consumption still need to be drawn, notwithstanding recent growth in customer experience

research in the industry. The concept of experience is founded on how an individual interacts with their surroundings. In the hospitality industry, customer experience refers to all the interactions between the customer and the hotel staff, hotel environment, and amenities at every touch-point of the customer journey. In other words, customer experience is the impression customers have of the hotel as a whole throughout their journey. As per a study by Deloitte, customers who have enjoyed a hotel will have the major revenue-generating power, 60% of customers will return, 39% of customers will spend more, and 41% of customers will recommend the restaurant to their acquaintances.

There is an increasing trend of experiencing a luxury lifestyle during vacations among travellers. Luxury stay is becoming the new trend among travellers, as they sum up their stay at a luxury hotel as a lifetime experience. In the luxury hotel

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sector, it has been common practice to promote products while retaining customer loyalty, for which numerous marketing strategies and techniques are used. Customers of luxury hotels search for more than just practical advantages; they also place some weight on unique service characteristics (Mohsin & Lockyer, 2010; Cetin & Dincer, 2014). To justify their high charges, luxury hotels provide their guests with opulent physical settings and digital services (Titz, 2007). In general, it is acknowledged that experiences play a significant role in determining how customers behave (Zhang & Mao, 2012). However, further study is required to determine which individual experience dimensions guests and hotel managers believe to be important for a first-class guest experience. In contrast to other dimensions, some lodging products (such as physical amenities), service encounters (such as contacts with employees), or digital interactions (such as the use of digital technology) may be more inclined to be experience-oriented. As a result, experiences are being increasingly acknowledged as distinctive offerings and effective means of differentiating in the hospitality sector.

Despite the fact that customer experiences are essential to the hotel industry, researchers have had difficulty coming to terms with a robust theoretical framework of customer experiences. It is important to research the customer experience dimensions in the hospitality industry because previous literature reveals that the idea of customer experience is a multi-dimensional feature and demonstrates a complex nature. The following research questions about the guest experience at upscale hotels in Northern India are the focus of this study.

- To investigate the dimensions of customer experience.
- To study the impact of customer experience and its dimensions on brand loyalty in luxury hotels.
- To study the moderating impact of hotel image on the relationship between customer experience and brand loyalty.

LITERATURE REVIEW

Customer Experience

The interaction between an individual and the physical, service, and digital environments is referred to as the customer experience. The environment, which includes the physical environment, digital environment, and service environment (contact with employees/staff), is the process through which services are delivered in the hospitality industry. Every time a person interacts with their environment, they are having an experience. The result of this contact with the world is experience.

Multiple touchpoints throughout the service chain, according to some studies (Voss & Zomerdijk, 2007; Knutson et al.,

2010; Grönroos, 1984). The journey of service is made up of various touchpoints and considerations. The cumulative customer experience is the result of all the journey's components (Voss & Zomerdijk, 2007), and the customer's experience includes all interactions with the hospitality brand (Knutson et al., 2010). Several scholars have argued in the past that interactions between guests and hotel workers as well as the physical environment and service environment all contribute to a guest's experience (Gupta & Vajic, 1999; Knutson et al., 2010; Johnston & Clark, 2001). Walls et al. (2011) conducted research on customer experience by speaking with guests in luxury hotels. They then proposed a model to illustrate the customer experience in luxury hotels, which includes physical contact and human interaction elements. Dimensions of customer experience are factors that have an impact on customer experience management at each interaction point (Verhoef et al., 2009). The success of the customer experience, according to Du Plessis and de Vries (2016), essentially rests on how well a customer interacts with a business whenever they do so, whether in person or online. According to content analysis and synthesis, the three primary determinants of consumer experience are the physical environment dimension, the digital environment dimension, and the human interaction dimension (Chahal & Dutta, 2014; Sarabhai & Chauhan, 2018; Mbama & Ezepue, 2018; Du Plessis & de Vries, 2016; Verhoef et al., 2009). Ali et al. (2014) advocated that, rather than directly influencing loyalty behaviour, customer experience management influences a consumer's behavioural intention to stick with a brand. Similarly, this study has created a framework to look at many aspects of the customer experience in luxury hotels as predictors of customer loyalty.

Physical Interaction Management

To provide the ideal customer experience, the marketer must provide the proper setting and ambience. Due to its inherent interdependence, the physical environment serves as the foundation of both the hospitality and tourism industries (Smith, 1994). Walls et al. (2011) assert that the physical interaction dimensions of a luxury hotel have an impact on how guests perceive the ambience, artefacts, spaces, and signs/symbols. Ambience, which includes scent, lighting, and background music, improves customers' perceptions and overall contentment (Countryman & Jang, 2006; Magnini & Parker, 2008). The literature now available does not indicate the experiential characteristics (such as design, lighting, odours, layout, etc.) that influence customers in a setting of luxury hotels, despite the increasing significance of the impact of the physical environment on the customer experience. For instance, Milliman (1986) discovered that the rhythm of music has an effect on diners' intent to purchase and consume. Gueguen and Petr (2006) claim that customers' decisions to approach or avoid a restaurant are

influenced by the aromas there. Hotel companies have made a number of initiatives to improve their hotel amenities, including lighting, textures, and pleasant scents.

The physical environment, according to Lee and Jeong (2012), is a space that the service provider has constructed, complete with design, general arrangement, decorating, and aesthetics. Many academics and hotel managers have begun to pay more attention to the value of creating an interactive physical environment since it is essential for drawing in and keeping clients in the hospitality sector (Han & Ryu, 2009). Other research highlighted the impact of physical environment characteristics on customer experiences (e.g., Countryman & Jang, 2006). As discussed above physical environment influences customer satisfaction. According to Seo et al. (2015), customer satisfaction impacts brand loyalty directly. Therefore, the following assumption was proposed:

H1: A significant relationship exists between physical interaction management and brand loyalty.

Human Interaction Management

The human interaction dimension is highly crucial in the hospitality industry. Human interaction is the dimension of the customer experience which is mainly produced through interaction with the staff (Komppula, 2006). Walls et al. (2011) looked at the customer experience's human interaction components, such as employee attitude, proactive service, professional conduct, and appearance. They also examined how crucial human interaction is in shaping service quality, an organization's reputation, and customer satisfaction (Bitner et al., 1990; de Ruyter & Wetzels, 2000; Kang & James, 2004). Pullman and Gross (2004) contend that emotionally engaging interactions between hotel guests and personnel lead to memorable customer experiences. The hotel company places an emphasis on the entire customer experience rather than just a specific product or service (Yuan & Wu, 2008). According to Gilmore and Pine (2002), a company can create memorable customer experiences by using its offerings to engage customers, which makes the hotel company more competitive. Bitner (1990) proposed that when the staff makes the customers feel valued and pampered through superior service and attentiveness, this concludes in satisfactory service encounters in hospitality firms.

The importance of the effects of staff involvement and service innovation on the customer experience has been covered by a number of researchers (Kucukergin & Dedeoglu, 2014; Lo, Stalcup & Lee, 2010). In order to further improve customer experiences, hotel companies are working very hard to improve their service offerings. The human interaction dimension is considered to be one of the

relevant factors leading to customer loyalty (Wilkins et al., 2009). Therefore, the following assumption was proposed:

H2: A significant relationship exists between human interaction management and brand loyalty.

Digital Interaction Management

Ballantyne and Nilsson (2017) contend that the market is moving more businesses toward digital market space by fusing the physical and digital worlds with technology as a result of technological breakthroughs, the emergence of the internet, and social media. Businesses use virtual reality to manage workspaces, while stores use augmented reality technology, such as smart mirrors, to let shoppers try on clothing. With the help of digital technology, businesses and customers may interact in an interactive, high-quality information environment that is highly tailored and immersive (Parise et al., 2016). The boundaries between human and digital connections are blurring as a result of digital technologies, which are altering the market (Lemon, 2016).

Businesses that embrace digital technologies have a substantial competitive edge because they can quickly adapt to shifting market dynamics. Innovative digital technologies are being embraced by businesses, including machine-to-machine communication via the internet of things, wearable technology, virtual reality, digital twins, and mobile, location-based, and AI technologies. With the use of digital interface technology, customers can connect with virtual experts to receive advice, recommendations, and answers to queries at any time and location (Breidbach et al., 2018). The digital era has led to more frequent interactions, high information availability, high accessibility, and transparency in transactions (Wedel & Kannan, 2016). Therefore, the following assumption was proposed:

H3: A significant relationship exists between digital interaction management and brand loyalty.

The Moderating Role of Hotel Image

The idea of brand image served as the inspiration for the idea of hotel image. According to Park et al. (1986), brand image is the knowledge of connected commercial firm strategies by customers. According to Mudambi et al. (1997), brand image plays a big part in differentiating goods or services. According to recent studies, hotels are essential for creating brand loyalty. According to a study conducted on hotels, the perception of the establishment has a favourable and significant impact on customer loyalty (Kandampully & Suhartanto, 2000). All human and digital interactions have

been identified as the origins of the hotel brand image. In a study of the restaurant business, Ryu et al. (2012) found that the physical surroundings and interactions between service workers and patrons have a substantial impact on a restaurant's image. Previous research has shown that interactions between people and physical surroundings have a big impact on how guests perceive hotels and how loyal they are to particular brands. Therefore, the following assumption was proposed:

H4: The relationship between customer experience and brand loyalty is contingent upon hotel image.

Brand Loyalty

The relationship a customer has with a brand is known as brand loyalty (Aaker, 1991). Fostering brand loyalty is one of hotel companies' top priorities, according to (O'Neill & Xiao, 2006). Regarding brand loyalty in the hotel industry, several academics disagree. According to Bowen and Chen (2001), brand loyalty increases a customer's propensity to return and suggest a hotel to others. According to Hsu et al. (2012), brand loyalty is an essential part of the brand image of luxury hotels. The experience that hotel businesses and service providers have an ongoing impact on brand loyalty.

Researchers have looked into how relationship marketing works to build brand loyalty in the hospitality sector, and the findings have relevance for businesses (Sui & Baloglu, 2003). Brand loyalty, according to Hsu et al. (2011), is a key component of luxury hotels. Additionally, loyalty is seen as a crucial indicator of marketing success across a number of businesses, including the hotel sector (Rather & Sharma, 2017). Studying brand loyalty is more pertinent given the importance of research pointing to the relationship between loyalty and profitability (Popp & Woratschek, 2017). Therefore, the following assumption was proposed:

H5: Customer experience impacts brand loyalty positively.

METHODOLOGY

This study intends to investigate the variables that influence customer experiences in order to comprehend the effects of those dimensions on brand loyalty. The data collection was based on online and offline questionnaires. This study looked at the factors affecting customer experiences at upscale hotels in Northern India because the dimensions of customer experience have not yet been well defined in the literature in the context of the hospitality industry.

The measurement model was developed and validated by identifying scales from previous studies. Measurement items were adapted for customer experience from (Hosany & Witham, 2009), physical interaction and digital

interaction from (Makudza, 2020) human interaction from (Walls, 2013), brand loyalty from (Liu & Hu, 2021), and moderator hotel image was measured on a categorical scale by asking the statement "According to you up to what level the relationship between customer experience and brand loyalty is influenced by the hotel image". The items of the questionnaire were modified according to our research context before the data collection. The final structure questionnaire consists of 60 items: 17 items to measure physical interaction, 20 items to measure human interaction and 17 items to measure digital interaction, and 6 items on brand loyalty. A section explaining the study's objectives was included in the research instruments and using a five-point Likert scale, each item received a score from (1), denoting "strongly disagree" to (5), denoting "strongly agree".

In this study, luxury hotels in Northern India are examined from the viewpoint of customers and hotel guests. Due to its quick expansion, Northern India's hospitality and tourism sector has established itself as a key destination for both business and leisure travellers. Due to the distinctive services they offer, several Northern Indian locations of worldwide luxury hotel chains are likewise acknowledged as some of the top locations in the luxury hotel international product portfolio. Analysis of luxury hotel patron experiences in Northern India is therefore seen to be pertinent for revealing hospitality experiences.

Data Analysis

Before the actual data collection stage, questionnaires were pilot tested with 100 consumers prior to the real data collection phase in order to determine the validity and reliability the scale that was employed. Before the data gathering procedure began, the basic questionnaire was modified in light of the observations and advice obtained. The authors evaluated the participant replies to identify the key elements that frequently affect guest experiences. 320 questionnaires out of the 360 questionnaires were chosen as part of the sample and determined to be valid and complete were included in the study.

Measurement Validation

In order to separate the dimensions from the 54-item customer experience measure, exploratory factor analysis was done. This study used the Kaiser-Mayer-Olkin test and Bartlett's sphericity test as sample adequacy tests to determine whether the data were suitable for factor analysis (KMO). Kaiser (1974), the KMO value was .882, which demonstrated Bartlett's sphericity test showed persuasive sample adequacy and reached statistical significance ($p = 0.000 < 0.05$). (Bartlett, 1954). The results confirmed that

the data were appropriate for factor analysis. An exploratory factor analysis of the statements was conducted using the principal component approach with varimax rotation. Hair et al. found that all statements had factor loadings greater than 0.5. Hair et al. (2006) concluded was acceptable and finalised for further analysis. The components in this study

explained a total variation of 74.454%, which is more than the acceptable value and above the approved value of total variance in social science research (Hair et al., 2006). The data analysis's findings showed a high level of dependability because all of the Cronbach's alpha values were more than 0.9 (Fayers & Machin, 2007).

Table 1: Results from the Exploratory Factor Analysis (N = 320)

Customer Experience Attributes		Factor Loadings	Dimensions Extracted
PIM2	The furniture in the hotel is comfortable.	.851	Ambience
PIM3	The aromas and scents in the hotel are pleasant.	.592	
PIM5	The temperature inside the hotel is comfortable.	.847	
PIM6	The color schemes used within the hotel are complementary and coordinating.	.571	
PIM7	I like the layout of the hotel.	.796	Layout/Design
PIM9	The hotel's architecture is impressive.	.904	
PIM10	The facility layout allows me to move around easily.	.801	
PIM11	The interior design of the hotel is visually appealing.	.759	
PIM13	The materials used in the hotel facilities are of high quality.	.687	Signage/Artifacts
PIM14	The signage and information display within the hotel is arranged properly.	.620	
PIM15	The artifacts in the hotel are impressive.	.744	
PIM16	The aesthetics of the hotel are very appealing.	.724	
HIM1	The hotel staff is competent and professional.	.601	Professional Behaviour
HIM2	The privacy of the guests is valued by the hotel staff.	.614	
HIM4	The hotel staff makes sure that everything is ready before guests arrive.	.668	
HIM5	The hotel staff perform the service right the first time.	.661	
HIM6	The hotel staff treat guests with respect.	.678	
HIM7	I feel thorough and satisfactory services are offered by the hotel staff.	.767	
HIM8	The hotel staff is well mannered .	.576	
HIM9	The hotel staff perform their duties as per hotel rules and regulations.	.641	
HIM10	The hotel staff is consistently courteous towards guests.	.619	
HIM11	The hotel staff is polite and friendly.	.847	
HIM12	The hotel staff is generous and passionate.	.898	Attitude
HIM13	I feel the hotel staff has guests' best interests at heart.	.881	
HIM14	I feel the hotel staff seem to care about their guests.	.795	
HIM15	The services offered by the hotel staff meet my needs and expectations.	.747	
HIM18	The staff at the hotel is always willing to help.	.881	
HIM19	The staff at the hotel is eager to provide guidance and assistance.	.786	Proactive Service
HIM20	Quick and prompt services are offered by the hotel staff.	.877	
DIM1	The electronic devices in the hotel function properly.	.748	
DIM2	The internet services of the hotel work efficiently.	.773	Digital Interfaces
DIM4	The smart gadgets used in the hotel function efficiently.	.648	
DIM5	The sensors used in the hotel are of high-tech quality.	.840	
DIM6	The voice and facial recognition systems used by the hotel are efficient.	.763	

Customer Experience Attributes		Factor Loadings	Dimensions Extracted
DIM7	The hotel uses advanced virtual reality technologies for their guests.	.539	Digital Tools
DIM9	The hotel offers self-service check-in and check-out kiosks.	.815	
DIM10	The hotel provides reliable virtual security systems in the rooms.	.880	
DIM12	The hotel uses mobile applications (e.g WhatsApp) to interact with the guests.	.887	
DIM14	The hotel offers authentic electronic payment gateways to their guests.	.635	Digital Applications
DIM16	The hotel provides an online booking facility for restaurant, dining, and other hotel services.	.589	
DIM17	The hotel has a user-friendly interactive website for offering the hotel services.	.618	

PIM: physical interaction management; HIM: human interaction management; DIM: digital interaction management; S.D: standard deviation.

Confirmatory Factor Analysis

In this study, the two-step approach of model-building was adopted as proposed by Anderson & Gerbing (1988). Before continuing with the structural model evaluation, according to Kline (2011), a reliable measurement model is needed. In order to analyse a structural model, this model first concentrated on analysing a measurement model. The measurement models were initially evaluated to determine whether they fit into the underlying latent components, which is comparable to the confirmatory factor analysis. The latent constructs in the confirmatory factor analysis model were PIM, HIM, and DIM. In the exploratory factor analysis, the observed variables for PIM were PIM2, PIM3, PIM5, PIM6, PIM7, PIM9, PIM10, PIM11, PIM13, PIM14, PIM15, and PIM16; for HIM, the observed variables were HIM1, HIM2, HIM4, HIM5, HIM6, HIM7, HIM8, HIM9, HIM10, HIM11, HIM12, HIM13, HIM14, HIM15, HIM18, HIM19 and HIM20) results were the observed variables for HIM; and (DIM1, DIM2, DIM4, DIM5, DIM6, DIM7, DIM9, DIM10, DIM12, DIM14, DIM16 and DIM17) results were the observed variables for DIM. The χ^2 was described for the model assessment. Due to its sensitivity to sample size, it is not advised to utilise the χ^2 test as the only metric of fit in a structural equation model (Hair et al., 2006; Tabachnick & Fidell, 1996). Hence, in order to evaluate the goodness of fit of the measurement model, additional fitness indices were looked at (Byrne, 2001). The following standards were applied: A smaller χ^2 is preferable, and $\chi^2/df < 3$ (Joreskog & Sorbom, 1992; Bagozzi & Yi, 1988). The comparative fit index (CFI) typically needs to be at least 0.90 in order to accept a model (Byrne, 2001; Hair et al., 2006), while a value of at least 0.95 is required to demonstrate “good” model fit

(Holmes-Smith et al., 2006). The results of the confirmatory factor analysis model testing weren't great. For the model fit to be improved, adjustments based on modification indices were required.

Items with factor loadings under 0.5 ought to be removed, according to Fornell and Larcker (1981), as they do not reflect traits that are compatible with the measuring statements. Following the implementation of the adjustment and the removal of item PIM16, the revised confirmatory factor analysis shows good agreement with the observed data ($\chi^2/df = 2.431$, CFI = 0.906, and RMSEA = 0.067), as shown in Table 2. In Table 2, each construct's factor loadings, cronbach's alpha, average variance extracted, and composite reliability are shown for each item from confirmatory factor analysis. These data are assessed to determine the constructs' validity.

All factor loadings are more than 0.5 and significant at $p < 0.001$ according to the modified confirmatory factor analysis, proving the validity of each item in evaluating the pertinent constructs (Bagozzi & Yi, 1988). The fact that all of the coefficients are over the cut-off value of 0.7 (Nunnally & Bernstein, 1994) and that all of the constructs' composite reliability ratings are higher than 0.8 indicates that all of the constructs have high levels of internal consistency and reliability (Fornell & Bookstein, 1982). Convergence validity was confirmed by the observation that all average extracted variance values were higher than 0.5. (Fornell & Larcker, 1981). Convergent validity is supported by the confirmatory factor analysis results because all item factor loadings are significant at $p < 0.05$. (Anderson & Gerbing, 1988). These results demonstrate that the constructs are successfully measured by the corresponding items.

Table 2: Results from the Confirmatory Factor Analysis (N = 320)

Customer Experience Attributes		Dimensions Extracted	Regression Weights	Cronbach α	AVE	CR
PIM2	The furniture in the hotel is comfortable.	Ambience	.87	.906	0.542	0.914
PIM3	The aromas and scents in the hotel are pleasant.		.81			
PIM5	The temperature inside the hotel is comfortable.		.52			
PIM6	The color schemes used within the hotel are complementary and coordinating.		.84			
PIM7	I like the layout of the hotel.	Layout/ Design	.98		0.620	0.891
PIM9	The hotel's architecture is impressive.		.68			
PIM10	The facility layout allows me to move around easily.		.97			
PIM11	The interior design of the hotel is visually appealing.		.59			
PIM13	The materials used in the hotel facilities are of high quality.	Signage/ Artifacts	.94		0.755	0.923
PIM14	The signage and information display within the hotel is arranged properly.		.88			
PIM15	The artifacts in the hotel are impressive.		.45			
HIM1	The hotel staff is competent and professional.	Professional Behaviour	.74	.928	0.654	0.874
HIM2	The privacy of the guests is valued by the hotel staff.		.64			
HIM4	The hotel staff makes sure that everything is ready before guests arrive.		.75			
HIM5	The hotel staff perform the service right the first time.		.77			
HIM6	The hotel staff treats guests with respect.		.72			
HIM7	I feel thorough and satisfactory services are offered by the hotel staff.		.75			
HIM8	The hotel staff is well mannered.		.77			
HIM9	The hotel staff perform their duties as per hotel rules and regulations.		.68			
HIM10	The hotel staff is consistently courteous toward guests.		.43			
HIM11	The hotel staff is polite and friendly.		.69			
HIM12	The hotel staff is generous and passionate.	1.01				
HIM13	I feel the hotel staff has guests' best interests at heart.	.96				
HIM14	I feel the hotel staff seem to care about their guests.	1.00				
HIM15	The services offered by the hotel staff meet my needs and expectations.	.68				
HIM18	The staff at the hotel is always willing to help.	Proactive Service	.97		0.595	0.850
HIM19	The staff at the hotel is eager to provide guidance and assistance.		.83			
HIM20	Quick and prompt services are offered by the hotel staff.		.93			

Customer Experience Attributes		Dimensions Extracted	Regression Weights	Cronbach α	AVE	CR
DIM1	The electronic devices in the hotel function properly.	Digital Interfaces	.76	.934	0.801	0.814
DIM2	The Internet services of the hotel work efficiently.		.75			
DIM4	The smart gadgets used in the hotel function efficiently.		.76			
DIM5	The sensors used in the hotel are of high-tech quality.		.78			
DIM6	The voice and facial recognition systems used by the hotel are efficient.		.78			
DIM7	The hotel uses advanced virtual reality technologies for their guests.		Digital Tools			
DIM9	The hotel offers self-service check-in and check-out kiosks.	.80				
DIM10	The hotel provides reliable virtual security systems in the rooms.	.84				
DIM12	The hotel uses mobile applications (e.g WhatsApp) to interact with the guests.	.63				
DIM14	The hotel offers authentic electronic payment gateways to their guests.	Digital Applications	.81	0.576	0.886	
DIM16	The hotel provides an online booking facility for restaurant, dining, and other hotel services.	.99				
DIM17	The hotel has a user-friendly interactive website for offering the hotel services.	.99				

PIM: physical interaction management; HIM: human interaction management; DIM: digital interaction management; AVE: average variance extracted; CR: composite reliability.

Hypotheses Testing

By using the structural equation modelling (SEM) technique in (AMOS 24), which linked the endogenous and exogenous variables, the hypotheses were estimated. The standardised estimate, standard error, critical ratio, and significance levels are shown in Table 4. According to Table 3 findings ($\chi^2 / df = 2.562$, CFI = 0.903, RMSEA = 0.078), the model fit was satisfactory. The hypotheses H1, H2, H3, H4, and H5 were accepted because the variables PIM, HIM, DIM, and CE were significantly strong and had positive impacts on BL in this study. PIM (0.055, $p < 0.05$), HIM (0.049, $p < 0.01$), DIM (0.068, $p < 0.05$), CE (0.037, $p < 0.05$). An interaction model exhibiting the interaction term between customer experience and hotel image on brand loyalty was created to investigate the moderating role of hotel image. This paper presents the outcomes of bootstrapping resampling procedures with hotel image as a moderator. The interaction of customer experience and hotel image is found to be positively significant (H4). According to the (Table 5) test results, it is supported by a standardised coefficient of 0.0726 at the 0.05 level of significance. The positive moderated path coefficient indicated that hotel image positively moderated the relationship between customer experience and brand loyalty. Overall, because it accounted for a significant proportion of variance (R^2), the interaction

term between customer experience and hotel image improved model productivity. Overall, the model was improved by the interaction term between customer experience and hotel image. Model productivity accounted for a significant proportion of brand loyalty variance (R^2 change = 0.0016). This demonstrates that hotel image mitigates the negative relationship. This implies that the positive relationship between customer experience and brand loyalty is more among the customer for hotels with higher hotel image than lower hotel image.

Table 3: Model Fit of SEM

Goodness of Fit Measures	Estimates	Cut-Off Values for Model Acceptable
χ^2	821.214	
df	302.000	
Probability level	.000	
χ^2 / df ratio	2.562	Between 1 and 3
CFI	0.903	<0.95
RMSEA	0.078	>0.06

χ^2 : chi square; df: degree of freedom; CFI: comparative fit index; RMSEA: root mean square of approximation.

Table 4: Structural Model Result (N = 320)

Hypothesis	Std. estimate	S.E.	C.R.	P	Results
H1: BL ← PIM	.244	0.055	4.943	***	Supported
H2: BL ← HIM	.303	0.049	7.191	**	Supported
H3: BL ← DIM	.356	0.068	5.272	***	Supported
H5: BL ← CE	.188	0.037	5.712	***	Supported

PIM: Physical interaction management; HIM: human interaction management; DIM: digital interaction management; HI: hotel image; BL: brand loyalty; CE: customer experience; CEXBL: interaction between customer experience and brand loyalty; S.E: standard error; CR: critical ratio. (Note: **p< 0.01, ***P< 0.05 = statistically significant).

Table 5: Results of the Interaction Term between customer Experience and Hotel Image

Interaction term	Path coefficient	Standard error	t-statistic	p-value	LLCI	ULCI
Inter = CE X HI	0.0726	0.0312	2.276	0.0252	0.0079	0.1244

CE: Customer experience; HI: Hotel image; LLCI: lower limit confidence interval, ULCI: upper limit confidence interval.
 Note: Significant at 5% level of significance.

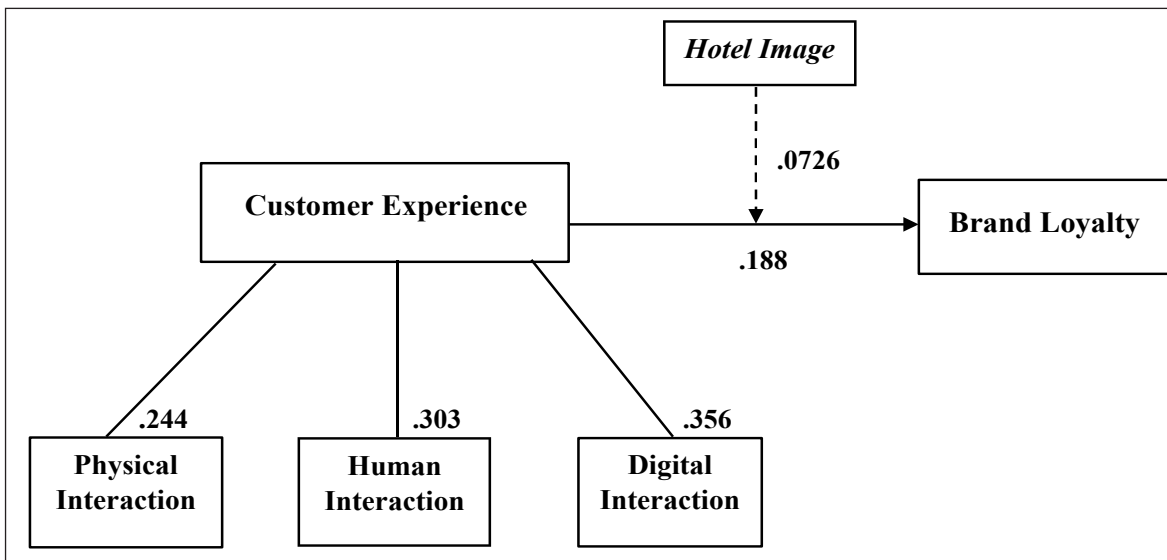


Fig. 1: Research Model

FINDINGS

This study has some contributions. Firstly, previously several studies on luxury hotels, and upscale hotels have been conducted, but this paper has focused only on major luxury hotels in Northern India. The substantial significance of customer experience as the antecedent of brand loyalty in the hotel industry has been further confirmed in this study by experimentally establishing the significant impact of customer experience and its dimensions on brand loyalty in the industry. Second, despite the fact that earlier studies have acknowledged the significance of physical, and human interaction dimensions on customer experience evaluations, the present study is the first one to evaluate digital interaction

as the customer experience dimension and the first to investigate the impact of digital interaction as a customer experience dimension on brand loyalty. Although the digital interaction dimension has a minimum significant impact on customers' brand loyalty compared to the other two, existing information has been expanded in the customer experience dimensions by scientifically supporting digital interaction as a strong predictor of brand loyalty.

The findings of this study will guide practitioners in understanding the important customer experience dimensions that influence brand loyalty for luxury hotels.

With these customer experience dimensions being significant antecedents of brand loyalty, hoteliers are suggested to focus on and administer the physical, human and digital touch-points of their customer interactions to enhance brand loyalty.

DISCUSSIONS AND CONCLUSIONS

This study has made some significant contributions. Firstly, while numerous research on upscale and luxury hotels has been done in the past, this study primarily focuses on the largest luxury hotels in Northern India. The substantial significance of customer experience as the antecedent of brand loyalty in the hotel industry has been further confirmed in this study by experimentally establishing the significant impact of customer experience and its dimensions on brand loyalty in the industry. The present study is the first to evaluate digital interaction as a customer experience dimension and the first to examine the impact of digital interaction on brand loyalty, despite the fact that earlier research had acknowledged the significance of physical and human interaction dimensions on customer experience evaluations. Although the digital interaction dimension has the least significant impact on customers' brand loyalty compared to the other two customer experience dimensions, research has been expanded by experimentally justifying digital interaction as a significant antecedent of brand loyalty.

The study's findings will help practitioners understand the essential parts of the visitor experience that impact luxury hotels' brand loyalty. Because these aspects of the customer experience are important predictors of brand loyalty, hoteliers are urged to focus on and manage the physical, human, and digital touch-points of their customer experiences.

LIMITATIONS AND FUTURE RESEARCH

This study has some limitations, including the possibility of sampling bias because convenience sampling was used to acquire the data (Mackey & Gass, 2005). The sample's representativeness cannot be entirely guaranteed due to the impossibility of accessing all of the hotel's clients and visitors due to privacy considerations. Second, the study's breadth was limited because data were only gathered from significant luxury hotels in Northern India. Customers of other premium chain hotels in various regions of India and worldwide may be unable to use the results. As a result, the suggested conceptual model for guests staying in independently owned, historically significant, reasonably priced hotels, etc., can be applied in future studies at various sites. In addition, it is possible to look into how a hotel's location and hotel category affect the relationships between clientele experiences and perceived brand loyalty.

The before and after experiences of customers' stays were not considered, despite the fact that this study looked at the effects of physical, human, and digital interaction factors on customer experience and the connection between brand loyalty and customer experience. Chun (2012) proposed that hotel visitors' experiences should be monitored before, during, and even after their stays.

Future studies should therefore look at how previous hotel experiences affect brand loyalty and other aspects of the customer experience. Future research can also look into how brand loyalty is affected by the experiences of hotel guests and customers at various points in their customer journey.

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