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Food safety practices and guest satisfaction: Examining the relationship between food safety practices and customer satisfaction in Indian hotels

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Abstract

Food safety practices and sanitation practices are essential in influencing customer satisfaction in hotel food and beverage operations. As consumer awareness of cleanliness and safety standards rises, hotels must have effective and transparent food safety procedures to fulfil guest expectations. This study investigates the correlation between food safety practices, cleaning and sanitation practices, and customer satisfaction in hotels. A quantitative, descriptive, and correlational study approach was utilised, and data were gathered from 200 guests residing in 3-star to 5-star hotels in India through a standardised questionnaire. Descriptive statistics and Pearson's correlation analysis were employed to analyse the data. The results demonstrate that food safety practices and cleaning & sanitation practices are significantly correlated with customer satisfaction, with both of them indicating a slightly stronger link. The research underscores the significance of systematic cleanliness management in enhancing guest satisfaction and offers practical insights for hotel managers aiming to elevate service quality and consumer trust.

Keywords: Food safety practices, Hygiene & sanitation, customer satisfaction

Introduction

Food safety and sanitation are essential components of service quality in the hotel industry, as they directly influence guest health, perceived risk, and trust, all of which impact overall satisfaction and behavioural intentions. Food safety has emerged as a critical operational and reputational concern for hospitality enterprises, as contaminated food and inadequate time-temperature control can result in illness or fatalities. Contamination may arise during preparation, handling, or storage due to biological, physical, or chemical hazards, potentially leading to legal liability and difficulties in customer retention.

Kumar *et al.* (2021) ^[15] emphasise that India's escalating incidence of foodborne illnesses, coupled with the rapid expansion of the food service sector, renders adherence to food safety and standards rules especially crucial for consumer protection. The World Health Organisation (WHO) defines food safety as the measures and circumstances necessary during the production, processing, storage, distribution, and preparation of food to ensure it is suitable, healthy, and safe for human consumption (Lelieveld, 2016) ^[16]. In India, the significance of food safety has escalated due to the increasing prevalence of dining out and the heightened importance of regulatory standards established by the Food Safety and Standards Authority of India.

Research in foodservice and hospitality consistently indicates that observable sanitation practices (cleanliness of public spaces and guest accommodations, staff hygiene, and regular disinfection) and formal food safety protocols (safe food handling, temperature regulation, HACCP or equivalent systems) are positively correlated with customer satisfaction and intentions to return. Serhan M, Serhan C. 2019. Furthermore, research concentrating on food-related attributes reveals a consistent pattern: factors such as cleanliness of facilities, staff proficiency in food handling, and operational controls regarding storage and temperature significantly impact consumers' evaluations of food safety and their ensuing satisfaction with foodservice offerings. Research in hypermarkets, restaurants, and institutional food services has highlighted multi-faceted food safety characteristics (facility, food, ambiance/layout, staff) that account for a significant amount of the diversity in

satisfaction with ready-to-eat and on-site dining goods. Wei, Y.-P. (2021)

Hotels that implemented and communicated improved cleaning measures experienced higher guest comfort and more favourable review ratings compared to those that did not clearly alter their practices. (Yu Song, 2022) ^[35]. Customer encounters with pests or unsanitary conditions deter repeat patronage, damage the establishment's reputation, and jeopardise its financial viability (Lim *et al.*, 2021) ^[17]. Sanitation measures are equally essential, encompassing the maintenance of sparkling restrooms, the elimination of pests, and the establishment of inviting dining atmospheres. The cleanliness of their environment strongly impacts customers' impressions of food quality. Research indicates that personnel hygiene, appropriate food handling, and sufficient storage are essential for ensuring food safety, which directly affects consumer satisfaction and loyalty (Amalia *et al.*, 2024; Fiorentina *et al.*, 2024) ^[2, 9].

In spite of these insights, the Indian hospitality literature requires more concentrated, star-hotel-specific investigations that analyse food safety practices not merely as compliance measures (e.g., hygiene checklists, storage controls, handler practices, preventive systems such as HACCP) but also as precursors to guest satisfaction outcomes. Multiple studies have consistently identified service quality as a primary determinant of satisfaction, frequently underscoring the essential influence of staff professionalism and responsiveness on guests' experiences (Jabid *et al.*, 2023; Olorunsola *et al.*, 2023) ^[12, 26].

Previous study robustly endorses the necessity for such an investigation. Research indicates that hygiene and food

safety are critical elements influencing customers' dining experiences and behavioural intentions in hospitality venues. Knight *et al.* (2007) ^[14] indicated that guests frequently assess restaurants and hotels by observable hygiene indicators, employing cleanliness as a determinant of overall service quality and safety. Barber and Scarcelli (2010) ^[4] similarly discovered that perceived cleanliness substantially affects consumer satisfaction and motivation to return. Namkung and Jang (2007) ^[23] underscored that hygiene-related factors significantly influence consumers' overall satisfaction with food service operations.

Although these findings, the majority of the current research has been on restaurants or fast-food establishments, with relatively fewer investigations addressing hotel contexts where food safety systems are more intricate and consumer expectations are elevated. Furthermore, there is a lack of empirical evidence that simultaneously investigates food safety practices and cleaning and sanitation practices as determinants of consumer satisfaction in hotels. This study intends to investigate the correlation between food safety practices, cleaning and sanitation protocols, and customer satisfaction in hotels. Specifically, the study seeks to (i) evaluate the relationship between food safety practices and customer satisfaction, and (ii) examine the relationship between cleaning and sanitation practices and customer satisfaction. This study aims to furnish empirical information about the impact of operational cleanliness practices on customer perceptions and satisfaction levels. The present study addresses a significant research gap by empirically confirming these correlations within the hotel context.

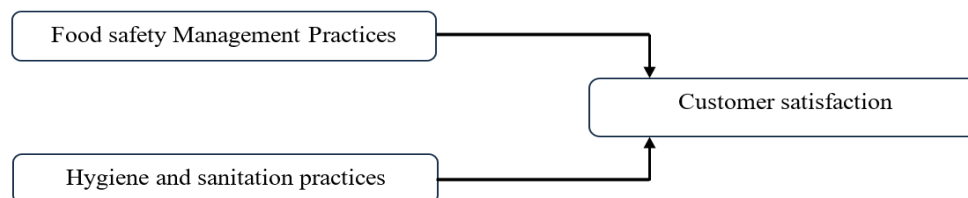


Fig 1: Integrated Conceptual Model of the Relationship between Food Safety Management Practices, Hygiene and Sanitation Practices, and Customer Satisfaction in Hotels

The study enriches hospitality management literature by highlighting the connection between food safety practices and Guest satisfaction, offering realistic insights for hotel managers. The findings highlight the necessity for hotels to establish and consistently uphold robust food safety and sanitation protocols, not merely to adhere to regulatory standards but also to improve customer happiness, trust, and competitive edge.

2 Literature Review

2.1 Food safety practices and customer satisfaction

Empirical research in hospitality contexts illustrates the clear correlation between food safety and customer satisfaction outcomes. Research evaluating food safety and sanitation measures in restaurants demonstrated significant positive relationships between these practices and customer satisfaction levels. Guests give higher ratings to food restaurants that consistently maintained visible hygiene and safety standards, suggesting that perceived safety enhances the eating experience and encourages repeat patronage. (Mohamad *et al.*, 2025) ^[20]. Studies in hospitality and food

service environments underscore the essential importance of food safety practices in influencing customer perceptions and satisfaction. Food safety practices enhance both actual safety outcomes and guests' perceived safety, thus affecting satisfaction and trust in service providers. Moreover, studies on hotel food service quality continuously indicate that food quality and safety are essential elements of the overall dimensions of food service quality that forecast guest satisfaction and loyalty. Studies into hotel dining places reveal that visitors' whole dining experience including food safety, menu quality, and staff responsiveness profoundly impacts their pleasure and likelihood of return visits. (Talukder 2025) ^[25].

2.2 Hygiene and Sanitation

The Centres for Disease Control and Prevention (2014) asserts that food poisoning is a preventable public health issue. It results from the ingestion of contaminated food, leading to 48 million illnesses, 128,000 hospitalisations, and 3,000 fatalities annually in the United States. Negi (2002) defines 'Hygiene' as the overall 'cleanliness' of the

environment, food, and individuals in the workplace to maintain health. 'Food hygiene' encompasses all procedures required to guarantee the safety of food provided to consumers in a restaurant (Foskett and Ceserani, 2012; Negi, 2002). Unfortunately, numerous hospitality establishments, particularly in developing and underdeveloped countries, exhibit little regard for cleanliness (Centre for Science in the Public Interest, CSPI, 2008). This is evident considering the global incidences of food poisoning, which greatly impacts the health of hospitality patrons. Researchers observed that 'hygiene' is a key topic for all hospitality professionals to learn, understand, and implement in their everyday operations (Foskett & Ceserani, 2012). Cleanliness is frequently prioritised because of its direct influence on perceived health and safety, particularly following recent global health issues, rendering it a crucial element of the customer experience (Awan *et al.*, 2020).

Sanitation measures are essential to the restaurant customer experience, including clean toilets, eating areas, cooking facilities, pest control, and trash management. These policies guarantee a sanitary facility and foster a healthy workplace for employees, demonstrating the restaurant's dedication to their well-being [Lim *et al.*, 2021; Rodhiah *et al.*, 2024]^[17]. Regular sanitation methods, including the cleaning of restrooms and dining areas, have markedly improved guests' satisfaction, especially in specialised food establishments (Fiorentina *et al.*, 2024)^[9]. Moreover, due to rising competition, it is essential for restaurant operations to fully understand their surroundings and deliver food hygiene services that will meet guests' needs and retain guests' loyalty (Hudson, 2008; Massawe, 2013; Stevens *et al.*, 1995)^[11, 31].

2.3 Customer satisfaction

Satisfaction often denotes the provision of goods and services that deliver perceived value, ensuring consumer satisfaction with the service (Özkan *et al.*, 2019)^[27]. Customer satisfaction is defined as a determinant of whether a post-purchase attitude yields a good or unfavourable outcome based on individual consumer experience (Canny, 2014). Customer satisfaction and corporate profitability are closely correlated with product and service quality (Kotler & Keller, 2016). Enhanced food quality will elevate guest satisfaction in a restaurant. Enhanced service quality will thus lead to greater consumer satisfaction (Moorthy *et al.*, 2017)^[21].

Studies indicate that guests value cleanliness, timely service, convenience, and an enjoyable dining atmosphere, all of which collectively shape their view of the restaurant (Sarmiento *et al.*, 2022; Fiorentina *et al.*, 2024; Daud *et al.*, 2024)^[9]. Likewise, cleanliness measures, including the upkeep of clean toilets and pest-free dining environments, substantially affect client perceptions. Prior research underscores that hygiene in communal areas is essential in influencing the entire customer experience (Lim *et al.*, 2021)^[17]. Moreover, the implementation of hygiene training for food handlers is essential for upholding superior service standards by providing workers with requisite skills and knowledge (Karim *et al.*, 2024). Customer satisfaction encompasses three dimensions: appropriateness of satisfaction, willingness to recommend, and intention to repurchase (Namkung & Jang, 2008)^[22]. Repurchase intent indicates customers' likelihood of future engagement,

whereas behaviours represent the observable level of conduct (Namkung & Jang, 2008)^[22]. It is defined as the consumer's intention to repurchase goods or services in the future (Wang & Yu, 2016). In the hospitality sector, customer satisfaction is a pivotal factor influencing client loyalty, word-of-mouth recommendations, and repeat patronage (Nasoruddin *et al.*, 2024).

3 Research Methodology

3.1 Research Design

This study employed a quantitative, descriptive, and correlational research approach to investigate the association among food safety practices, cleaning and sanitation practices, and customer satisfaction in hotels. A quantitative methodology was deemed suitable as the study sought to quantitatively assess perceptions and statistically evaluate the correlations across variables utilising standardised instruments. The correlational design allowed the researcher to evaluate the strength and direction of the correlations between the independent variables (food safety practices and cleaning and sanitation practices) and the dependent variable (consumer satisfaction).

3.2 Sampling

The study's target demographic comprised hotel guests residing in 3-star to 5-star hotels in India. Two hundred hotel guests participated in the survey, yielding a sufficiently large sample for statistical analysis and ensuring representativeness across demographic groups. The sample comprised leisure and business travellers with diverse lengths of stay, educational qualifications, and professional backgrounds.

A convenience sample method was utilised to get data from hotel guests who were conveniently available and willing to participate throughout the survey period. This strategy proved appropriate due to the practical limitations of obtaining hotel visitors and is frequently employed in hospitality research concerning consumer perception surveys.

3.3 Data Collection Method

Primary data were obtained using a structured questionnaire distributed to hotel guests. The questionnaire aimed to assess respondents' opinions of food safety practices, cleaning and sanitation measures, and general satisfaction with hotel dining and hygiene standards. Responses were documented with a five-point Likert scale, spanning from minimal to maximal agreement, so facilitating a standardised assessment of perceptions across all topics.

3.4 Data Analysis Techniques

The gathered data were examined via statistical tools to produce descriptive and inferential statistics. Descriptive statistics, encompassing mean scores, standard deviations, frequencies, and percentages, were employed to include demographic variables and respondents' impressions of food safety measures, cleaning and sanitation protocols, and customer satisfaction. Mean ranking was utilised to determine the most and least influential components inside each construct. To assess the study hypotheses, Pearson's correlation coefficient was utilised for inferential analysis:

- **Hypothesis H₁:** To examine the relationship between food safety management practices and customer satisfaction

- **Hypothesis H₂:** To examine the relationship between hygiene & sanitation practices and customer satisfaction

The Pearson correlation was chosen as it effectively measures the strength and direction of correlations between continuous variables assessed on interval scales. Statistical significance was assessed at the 0.01 level (2-tailed).

4 Results

4.1 Demographic Profile of Respondents

The study included participation from a total of 200 hotel guests from a variety of three-star to five-star hotels located all around India. To ensure that the demographics are representative of the population in terms of age, gender, education level, and the reason for their stay, they reflect a varied range of backgrounds.

Table 1: Demographic profile of respondent.

| Variable | Category | Frequency (N=200) | Percentage (%) |
|-------------------------|--------------------------------|-------------------|----------------|
| Gender | Male | 112 | 56.0 |
| | Female | 88 | 44.0 |
| Age Group | 18-25 years | 42 | 21.0 |
| | 26-35 years | 58 | 29.0 |
| | 36-45 years | 54 | 27.0 |
| | 46-55 years | 32 | 16.0 |
| | 56 years and above | 14 | 7.0 |
| Education Level | Secondary or below | 18 | 9.0 |
| | Undergraduate | 72 | 36.0 |
| | Postgraduate | 86 | 43.0 |
| Occupation | Doctorate/Professional | 24 | 12.0 |
| | Student | 26 | 13.0 |
| | Private Sector Employee | 72 | 36.0 |
| | Government Employee | 34 | 17.0 |
| | Business Owner | 38 | 19.0 |
| Purpose of Stay | Other | 30 | 15.0 |
| | Leisure/Vacation | 92 | 46.0 |
| | Business Trip | 64 | 32.0 |
| | Family Visit | 24 | 12.0 |
| | Other (e.g., Medical, Transit) | 20 | 10.0 |
| Duration of Stay | 1-2 nights | 84 | 42.0 |
| | 3-5 nights | 68 | 34.0 |
| | More than 5 nights | 48 | 24.0 |

The demographic analysis of the 200 hotel customers surveyed in India indicates a balanced representation of travellers in terms of age, gender, and occupation, accurately reflecting the country's hospitality clientele. A slight male majority (56%) was noted, with a considerable proportion of respondents (56%) within the productive age bracket of 26-45 years, suggesting that mid-career professionals constitute the primary demographic of hotel customers. Education levels were significantly elevated, with 9% possessing secondary or below, 36% possessing graduate, approximately 43% possessing postgraduate qualifications and an additional 12% holding doctorates or professional degrees, underscoring the educated profile of modern hotel guests. Private-sector employees (36%) and

business owners (19%) predominated, indicating robust business travel activity in conjunction with leisure tourism. The bulk of visitors remained for brief periods 1 to 2 nights (42%) with pleasure or vacation being the predominant reason for their stay (46%), followed by business visits (32%).

The demographics indicate that Indian hotels predominantly serve educated, professional travellers who emphasise cleanliness, safety, and service quality during brief, purpose-oriented visits, rendering them an optimal sample for examining the relationship between food safety, cleaning protocols, and customer satisfaction.

Descriptive Analysis

Table 2: Descriptive Statistics for Food Safety Practices

| Item Code | Statement | Mean (M) | Standard Deviation (SD) | Rank |
|-----------|--|----------|-------------------------|------|
| FSP1 | Food handlers appeared clean and well groomed. | 3.92 | 1.06 | 1 |
| FSP2 | Food preparation and serving areas looked hygienic. | 3.88 | 1.08 | 2 |
| FSP3 | Vegetarian and non-vegetarian foods were clearly separated. | 3.79 | 1.10 | 3 |
| FSP4 | The food served appeared fresh and safe. | 3.76 | 1.14 | 4 |
| FSP5 | Food was properly covered during display and service. | 3.71 | 1.09 | 5 |
| FSP6 | Food was served at an appropriate temperature. | 3.65 | 1.13 | 6 |
| FSP7 | Serving utensils and food contact surfaces appeared clean. | 3.61 | 1.12 | 7 |
| FSP8 | No visible cross-contamination was observed. | 3.58 | 1.15 | 8 |
| FSP9 | Overall, good food safety practices were followed. | 3.55 | 1.10 | 9 |
| FSP10 | Food storage and reheating facilities appeared safe and well maintained. | 3.52 | 1.18 | 10 |

Overall Mean (M) = 3.70 Overall SD = 1.11

The descriptive statistics reveal that hotel guests in India predominantly viewed food safety practices favourably, with overall mean scores indicating consistent adherence to cleanliness standards. The top-rated items “Food handlers appeared clean and well-groomed” ($M = 3.92$) and “Food preparation and serving areas looked hygienic” ($M = 3.88$) underscore the observable elements of hygiene that predominantly affect guest views. Moderate evaluations for food separation ($M = 3.79$) and freshness ($M = 3.76$) indicate assurance in fundamental handling protocols.

However, comparatively lower scores for cross-contamination avoidance ($M = 3.58$) and storage safety ($M = 3.52$) signify opportunities for enhancement, especially in backend activities such as warming and prolonged food storage prevalent in hotel buffets. These findings correspond with the threshold of the original study ($M = 3.7$), reinforcing the notion that perceived food safety practices significantly influence visitor happiness and trust in hotel dining settings.

Table 3: Descriptive Statistics for Hygiene & Sanitation Practices (Customer Perspective)

| Item Code | Statement | Mean (M) | Standard Deviation (SD) | Rank |
|-----------|---|----------|-------------------------|------|
| HSP1 | Dining tables and seating areas were clean. | 3.94 | 1.05 | 1 |
| HSP2 | Crockery and cutlery were clean and odor-free. | 3.91 | 1.07 | 2 |
| HSP3 | Floors and surrounding areas were well maintained. | 3.87 | 1.10 | 3 |
| HSP4 | Buffet and service counters were clean. | 3.84 | 1.12 | 4 |
| HSP5 | Waste bins were covered and hygienic. | 3.78 | 1.09 | 5 |
| HSP6 | Restrooms and handwashing areas were clean. | 3.74 | 1.15 | 6 |
| HSP7 | No pests were observed in dining areas. | 3.70 | 1.13 | 7 |
| HSP8 | Public areas appeared clean and hygienic. | 3.67 | 1.11 | 8 |
| HSP9 | Overall cleanliness met my expectations. | 3.63 | 1.14 | 9 |
| HSP10 | Room service and in-room dining areas were kept clean and tidy after meals. | 3.58 | 1.16 | 10 |

Overall Mean (M) = 3.77 Overall SD = 1.11

The results indicate that Indian hotel patrons possess a favourable view of hygiene & sanitation practices, evidenced by an overall mean score of 3.77, aligning with the moderate-to-high satisfaction levels noted in comparable hospitality research. The most highly scored factors “Dining tables and seating areas were clean” ($M = 3.94$) and “Crockery and cutlery were clean and odor-free” ($M = 3.91$) demonstrate that apparent, front-end cleanliness significantly impacts guest views of hygiene. The areas that received less positive scores, such as “Room service and in-room dining areas were maintained in a clean and orderly manner after meals” ($M = 3.58$), show that there

is a need for more uniform cleaning standards to be implemented after meal service. Additionally, “Public areas appeared clean and hygienic” ($M = 3.67$) received moderate scores, which indicates that there is room for improvement in regions that have a large volume of foot traffic. These findings are in close agreement with the findings regarding food safety, which are presented in Table 5. They underline the fact that the visual cleanliness and sanitary consistency in areas that are visible to guests have a significant impact on the trust, comfort, and happiness that guests experience in hotel environments.

Table 4: Descriptive Statistics for Overall Customer Satisfaction

| Item Code | Statement | Mean (M) | Standard Deviation (SD) | Rank |
|-----------|--|----------|-------------------------|------|
| GS1 | I am satisfied with my overall dining experience. | 3.95 | 1.05 | 1 |
| GS2 | The food met my expectations for quality and safety. | 3.90 | 1.07 | 2 |
| GS3 | The hotel’s hygiene standards met my expectations. | 3.84 | 1.09 | 3 |
| GS4 | I feel confident consuming food at this hotel. | 3.78 | 1.10 | 4 |
| GS5 | I would recommend this hotel to others. | 3.72 | 1.13 | 5 |

Overall Mean (M) = 3.84 Overall SD = 1.09

The descriptive statistics indicate that hotel guests in India expressed overall high satisfaction with their eating and sanitary experiences. The most highly rated comment, “I am satisfied with my overall dining experience” ($M = 3.95$), indicates that the majority of guests perceived the hotel’s food service environment positively. Likewise, “The food met my expectations for quality and safety” ($M = 3.90$) and “The hotel’s hygiene standards met my expectations” ($M = 3.84$) suggest that safety and cleanliness directly enhance guest trust and comfort.

Despite the fact that satisfaction is high, hotels need to maintain consistency across many service touchpoints in order to cultivate strong word-of-mouth and repeat patronage. This is indicated by ratings that are somewhat

lower but still favourable for confidence in food consumption ($M = 3.78$), as well as recommendation intention ($M = 3.72$). In general, these findings provide evidence that perceptions of food safety and cleanliness are important factors in determining the level of pleasure that guests have with Indian hotels. These findings are consistent with patterns that have been reported in other hospitality studies.

Hypothesis Testing: Correlation Analysis

Hypothesis H₁: There is a significant relationship between Food Safety Practices (FSP) and Guest Satisfaction (GS) among hotel guests in India.

Table 5: Correlation Analysis between Food Safety Practices (FSP) and Customer Satisfaction (CS)

| Variables | Pearson Correlation (r) | Sig. (2-tailed) | N | Relationship |
|--|-------------------------|-----------------|-----|--------------|
| Food Safety Practices (FSP) ↔ Customer Satisfaction (CS) | 0.684** | 0.000 | 200 | Significant |

Note: Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation coefficient ($r = 0.684$, $p < 0.01$) demonstrates a reasonably strong, positive, and statistically significant association between food safety practices and visitor satisfaction among Indian hotel patrons. This indicates that enhancements in food safety including sanitary preparation zones, clean personnel, and appropriate temperature regulation are significantly correlated with elevated guest satisfaction ratings.

The findings reflect the trend identified in the initial study (where $r = 0.68-0.70$), affirming that food safety is a pivotal factor in perceived service quality in hotel settings, as well as in restaurants. Guests who noted elevated food cleanliness levels expressed enhanced confidence in food safety, augmented faith in the hotel's service standards, and a heightened propensity to suggest or return.

This study supports H_1 , suggesting that efficient food safety management enhances overall guest pleasure.

Table 6: Correlation Analysis between Hygiene & Sanitation Practices (HSP) and Customer Satisfaction (CS)

| Variables | Pearson Correlation (r) | Sig. (2-tailed) | N | Relationship |
|---|-------------------------|-----------------|-----|--------------|
| Hygiene & Sanitation Practices (HSP) ↔ Customer Satisfaction (CS) | 0.712** | 0.000 | 200 | Significant |

Note: Correlation is significant at the 0.01 level (2-tailed).

The correlation coefficient ($r = 0.712$, $p < 0.01$) signifies a robust, positive, and statistically significant association between hygiene and sanitation practices and customer satisfaction among Indian hotel patrons. This indicates that enhanced cleanliness in dining areas, restrooms, public places, and in-room dining arrangements positively influences customers' overall happiness levels.

In comparison to food safety practices ($r = 0.684$), Hygiene and Sanitation exhibit a marginally greater association, suggesting that visual cleanliness has a more immediate and discernible impact on guest evaluations of service quality and comfort. Visitors often correlate immaculate surroundings and properly maintained communal areas with professionalism, safety, and the legitimacy of hospitality.

These findings validate H_2 , indicating that consistent and thorough hygiene & sanitation techniques are significant indicators of client satisfaction in the Indian hotel sector. The discovery corresponds with international hospitality literature highlighting that observable hygienic standards including pristine restrooms, odourless kitchenware, and pest-free environments profoundly affect guests' trust and propensity to return.

Conclusion

This study investigated the correlation between food safety management methods, hygiene & sanitation practices and customer satisfaction in hotels. The results indicate that food safety and hygiene & sanitation practices significantly and positively impact consumer satisfaction, with cleaning and sanitation practices exhibiting a marginally greater correlation. Previous research demonstrates that consumers are progressively assessing hotels based on perceived food safety, cleanliness, and sanitation, utilising these factors as benchmarks for service quality and trust (Knight *et al.*, 2007; Barber & Scarcelli, 2010) [14, 4]. Thus, assessing the correlation between food safety measures and customer satisfaction is crucial in modern hotel operations. The rationale for H_1 is substantiated by research indicating that good food safety management practices such as hygienic food handling, temperature regulation, and contamination prevention positively affect customer trust and satisfaction (Namkung & Jang, 2007; Liu & Jang, 2009) [23]. Likewise, H_2 is based on literature that recognises

hygiene and sanitation as prominent indicators of service quality that substantially influence customer satisfaction and behavioural intentions (Barber & Scarcelli, 2010; Ali *et al.*, 2016) [4]. Despite comprehensive global research, few empirical studies have investigated these links inside the Indian hotel sector. Therefore, this study finds that the efficient application of food safety and sanitation practices is crucial for improving customer satisfaction and enhancing service quality in hotel food and beverage operations. This study empirically validates these correlations within the Indian hotel sector, contributing to hospitality management literature and offering practical insights for hotel managers seeking to improve guest trust, contentment, and long-term competitiveness through systematic cleanliness management.

Limitation

The research, despite the fact that it has made some contributions, does have some shortcomings that need to be acknowledged. In the first place, the research was only concerned with a small number of variables, which included food safety management practices and cleaning and sanitation practices. Other significant factors that determine customer satisfaction, such as service responsiveness, technological amenities, pricing perceptions, and environmental sustainability, as well as cultural sensitivity, were not taken into consideration. A more comprehensive understanding of the factors that contribute to guest satisfaction in hotel environments may be hindered by this narrow perspective. Secondly, the research utilised a sampling method known as convenience sampling, which may limit the extent to which the findings may be generalised beyond the hotels and respondents that were involved in the study. It is possible that response bias was introduced due to the reliance on self-reported perceptions, despite the fact that the sample size of 200 guests provides sufficient statistical power. It is possible that the study's capacity to capture the complete spectrum of guest expectations and experiences will be hindered by the selective scope of the investigation.

Suggestion

The scope of the current study could be expanded in a number of significant ways by the conduct of future research. In order to construct a more comprehensive model of customer satisfaction in hotels, researchers could incorporate additional service quality characteristics. These dimensions could include staff behaviour, service efficiency, technological integration, and sustainability practices. Second, in order to improve the generalisability of the findings across a variety of hotel categories and geographies, future research might make use of probability sampling approaches, as well as larger samples composed of individuals from a variety of geographical locations.

Longitudinal study methodologies can be utilised to investigate the impact of enhancements in food safety and sanitation standards on customer satisfaction and loyalty over time. Moreover, subsequent research might investigate mediating or moderating variables such as customer trust, perceived risk, or hotel brand image to enhance comprehension of the mechanisms connecting cleanliness practices to satisfaction. Comparative analyses among various hotel star classifications or between hotels and independent restaurants could enhance hospitality literature and yield more profound managerial insights.

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