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### Analysis of factors affecting Customer Satisfaction and Quality Management in Hotel Industry

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**Abstract**—Hospitality is not just only to attend to a guest need, but is a more efficient form of personalized service, performed with involvement, interest and willingness to serve customers with special care. Quality is a measure of satisfaction that occurs between a customer and the service provider. Quality of service is a cause of concern; therefore, a detailed study to measure the perceptions of customers visiting in Hotels has been undertaken in this research. This research work focuses on the study of existing facilities provided by the hotels and quality measures adopted by them to fulfill customer needs. The objective of this work is to find the perception of customers towards the quality of services offered by the hotels and to analyze the level of customers satisfaction achieved by them for conducting this research offline questionnaire based survey has been conducted in order to collect the specific primary data. Questionnaires were designed based on the study of the literature and modified as per the discussions held with industry experts. Some statistical techniques have been used to analyze the responses collected by research survey. Findings of the study suggest some important aspects related to customer satisfaction e.g. personalized service, payment system, security system, housekeeping services, complaint management system etc.

**Keywords:**— Hospitality, Hotel Industry, Quality Management, Customers Satisfaction, Three star hotels, Statistical analysis.

#### 1. INTRODUCTION

The hospitality industry provides immense employment opportunities in different departments such as food production, food service, housekeeping, engineering, human resource, security and other operational departments. Hospitality refers to a deliberate, planned and sustained effort to establish and maintain mutual understanding between an organization and the public, a business of making and keeping friends and promoting an atmosphere of better understanding. The industry has vast potential to earn foreign exchange and contributes to about 33 percent of Indian economy and is also the second largest industry in the world next to the oil industry.

#### 2. HOTEL INDUSTRY IN INDIA

India, being a market with greatest potential in foreign direct investment, is giving a boost to the present business scenario and it shows a positive growth with the Gross Domestic Product growing up to 8.2 percent. India's hospitality and tourism sector are poised to take off in the coming years with more international brands entering the hospitality market.

### ***Industrial Contribution of Hospitality Business***

The hotel industry is also benefited by health sector, wherein people from various destinations visit India to undergo treatment for various ailments due to the good medical care and less expensive treatment when compared to other countries. Hotels have created a new category in domestic hospitality giving a boom to Indian tourism and other ancillary industries. The standard and maintenance of quality help to retain continued patronage.

### ***Role of Quality Management in Hospitality Business***

The aim of quality maintenance in hotel industry is to achieve a maximum business by providing extra mile service in all aspects while the customer visits the dining area or is resting in the comforts. Provision of quality or excellence in food and accommodation should also be an important factor in hotel business. Safety, security, hygiene and quality standards are the most important attributes of quality in hospitality services.

### ***Problem Statement***

Maintenance of quality services in hospitality would create more sales thereby retaining the customer in business. Even though, quality control in hotel industry is imperative for a successful business, very few researches have been conducted in this area. Hence there is an intensive need of research on Quality Management issues in Hospitality Business.

### ***Research Objective***

- To understand the organizational setup of the selected star hotels.
- To develop educational inputs to improve and maintain quality standards.

## **3. LITERATURE REVIEW**

**Beydilli et al (2020)** seeks to compare the management styles of local and foreign hotel chains operating in Turkey from a cultural dimensions perspective. It aims to build a link between cultural values and management styles.

**Latif et al (2020)** examines the role of customer perceptions of CSR in improving customer loyalty by exploring its direct and mediated effects through service quality, customer satisfaction, corporate image and corporate reputation in a cross-country setting.

**Nunkoo et al (2020)** contributes to customer satisfaction knowledge with regard to accommodation in South Africa whose star grading differs.

**Santos et al (2020)** identified criteria against which hotels can measure their impacts. It is concluded that using these criteria will allow hotel managers to develop more holistic, systemic, integrated, and participatory strategies and to play an active role in building economically profitable, socially just, culturally compatible, and environmentally responsible societies.

**Chen et al (2019)** aims to examine the effects of a set of covariates, including culture, socio-demographic, and travel behavioral patterns, on behavioral consequences of hotel guests. The results showed that culture, gender, age, education, income, and travel experience predicted the behavioral consequences of hotel guests.

**El-Adly et al (2019)** investigates the relationship between the dimensions of customer perceived value, customer satisfaction, and customer loyalty in the context of hotels using structural equation modelling (SEM).

**Hu et al (2019)** adopts a novel structural topic model text analysis method to understand the causes of customers' complaints to improve their service quality,

customer satisfaction, and revenue.

**Mohsin et al (2019)** presented a study to evaluate the service quality offered by hotels in Lisbon based on an Importance Performance Analysis (IPA) scale and to measure the importance of specific dimensions for guests staying in three, four, and five star hotels.

**Al-aomar et al (2018)** assess the adoption of lean techniques across the supply chains of hotels. Literature indicates a growing awareness of sustainability issues and lean adoption for value creation in the hospitality industry.

**Dimitriou et al (2018)** identified the main factors that impact the ethical behavior of hotel employees to help hotels understand the source of this problem. Results revealed some of the factors those are key determinants that rule the ethical behavior of employees regardless of the setting they are in.

**Han et al (2017)** developed a theoretical framework in which overall image, image congruence, and quality of physical environment, service, and food affect guests' satisfaction and intentions to revisit a luxury hotel/restaurant and visit other restaurants of the same hotel by considering the influence of conspicuousness as a moderator.

**Hyun et al (2017)** examined the dimensionality of hospitality customer relationships and developed a multi-dimensional customer relationship scale validated with both antecedent measures of marketing effectiveness and effect measures of financial performance.

#### **4. THEORETICAL FRAMEWORK**

##### ***Emerging trends in the hotel industry***

Progressive and enterprising caterers and hotel proprietors constantly study and analyze in detail the current trends and developments in the industry in order to provide a high standard of accommodation and service at reasonable prices and to

improve the efficiency of their establishments. They are also aware of the need to make their establishments bright and cheerful with all the modern conveniences, whilst also preserving the spirit and traditions of the inns of older times. A hotel that is run by an owner and the owner's family is considered owner operated because the owner cooks the meals, cleans the rooms and performs all such tasks. In independent hotels, the owner has no role in management or day-to-day operations. An independent group of managers are responsible to the owner for the hotel's performance. Franchised hotels are independently owned hotels that affiliate themselves with a chain. In a franchise arrangement the owner (franchise) pays a franchise fee to the chain (franchiser) in exchange for the rights to use their name, in addition to the name, the chain provides standard operation procedures and other guidelines on administration so that a consistent level of quality and service is maintained.

##### ***Hotels in India and their category***

In India there are over more than 1000 government approved star hotels. Out of them 5% of the hotels are 5 star deluxe hotels. 8% are 5 star hotels. 12% are 4 star hotels, 28% are 3 star hotels, 14% are 2 star hotels and 22% are 1 star hotel and 11% are heritage hotels.

##### ***Managerial functions of various departments in Hotel***

###### ***Front Office***

In all hotels, the reception is the focal point. The staffs working here is expected to be charming, tactful, diplomatic and capable of dealing with members of the public as well as carrying out the innumerable tasks that ensure the smooth and efficient running of the office. Front office generates 60-70 percent of revenue for a hotel.

### ***House Keeping Department***

Housekeeping is the most important department in hotel, as people want to stay in a clean hotel. It is the biggest physical area in hotels. Housekeeping is responsible for maintenance of a clean pleasant and orderly environment. It is the nerve center of the hotel.

### ***Food and Beverage Service Department***

Food and beverage service is the essential link between the menu, beverage and other services on offers in the establishment. The department is responsible for greeting the guest at various occasions and full filling their requirement.

### ***Food Production Department***

Food production department has the following responsibility to satisfy the customer training the staff, assisting in purchase, giving purchase specification for food, receiving food commodities, proper storage, menu compilation, food preparation, yield management, specification of portion, use of standard recipe, portion control, cost control, earning of gross profit for management, hygiene maintenance, staff control, waste management, and coordination with other departments.

### ***Quality Assurance System and Quality Strategy in Hotel Industry and Hospitality***

BS 57850 is a guarantee of quality product; it attempts to ensure that the production management system is subjected to regular independent checks and rigorous scrutiny. Quality Management System means all the activities, which go on the company to ensure that it meets its quality objectives. In this respect, HACCP (Hazard Analysis and Critical Control Point) can be considered as a Quality Management System in that it is an activity which helps to ensure that the objective of production of safe food is assisted. ISO 9000 is quality management system aimed primarily at preventing and detecting any unacceptable product during

production & distribution to the customer and by taking corrective action to ensure that the non-conformance does not occur again. The quality comprises the degree to which attributes of the service desired by the users are identified and incorporated in the service and the degrees to which desired levels of these attributes are perceived by the user to be achieved. Four Basic strategies of quality in terms of hospitality industry are:

- Quality Inspection (QI)
- Quality Control (QC)
- Quality Assurance (QA)
- Total Quality Management (TQM)

## **5. RESEARCH METHODOLOGY**

The methodology pertaining to the study is a maiden attempt to explore the various aspects of quality management in hotel industry.

The study was carried out in two phases:

**Phase 1** To study the existing quality management practices in selected hotels.

**Phase 2** To assess the levels of customer satisfaction and suggestion for improvement.

### ***Conduct of study***

Quality of service in a hotel is maintained by satisfying the needs of the customer. Keeping this in mind, the researcher selected the above four departments to study the existing quality management in the selected hotels. Questionnaires were prepared to elicit information from the four selected departments. Since the researcher wanted to elicit authentic information from the personnel involved in preserving and maintaining quality management in the hotel industry, heads of the four departments namely front office, housekeeping, food production, food and beverage were selected, which comprised of 20 personnel totally.

## 6. DATA ANALYSIS

### *Responses of Survey Questionnaire*

On the basis of above 30 service quality variables classified under 7 SERVQUAL constructs, questionnaire survey was conducted among customers of selected 5

hotels. On further filtering the completeness and accuracy of responses, finally 150 responses (30 from each hotel) has been selected for further analysis.

**Table 1: Descriptive Statistics for Service Quality dimensions**

CONSTRUCT	VARIABLE	MEAN	STD DEV	VARIANCE	SKEWNESS	KURTOSIS
<b>Reliability</b>	<b>REL1</b>	3.41	0.88	0.78	-0.305	0.797
	<b>REL2</b>	2.83	0.97	0.93	0.296	-0.439
	<b>REL3</b>	2.21	0.99	0.97	0.683	0.398
	<b>REL4</b>	3.37	1.04	1.08	-0.784	0.238
	<b>REL5</b>	2.95	0.94	0.89	-0.295	0.362
<b>Responsiveness</b>	<b>RESP1</b>	3.19	0.97	0.94	-0.784	0.441
	<b>RESP2</b>	3.29	0.91	0.84	-0.975	0.735
	<b>RESP3</b>	3.91	1.04	1.09	-0.884	0.479
	<b>RESP4</b>	3.46	0.88	0.77	-0.626	0.596
	<b>ASS1</b>	2.69	0.96	0.93	0.880	0.546
<b>Assurance</b>	<b>ASS2</b>	3.12	0.85	0.72	0.099	-0.015
	<b>ASS3</b>	3.41	0.98	0.97	-1.065	0.342
	<b>ASS4</b>	3.75	1.11	1.22	-1.050	0.546
	<b>EMP1</b>	2.87	0.94	0.88	-0.124	0.535
	<b>EMP2</b>	3.09	0.96	0.93	-0.771	0.168
<b>Empathy</b>	<b>EMP3</b>	3.71	0.98	0.96	-0.877	0.544
	<b>EMP4</b>	3.40	0.90	0.82	-0.496	0.226
	<b>TANG1</b>	1.97	0.92	0.84	0.758	0.319
	<b>TANG2</b>	2.13	0.89	0.79	0.494	0.143
	<b>TANG3</b>	3.30	0.78	0.60	-0.053	-0.083
<b>Tangibles</b>	<b>TANG4</b>	3.68	1.10	1.21	-0.620	-0.325
	<b>CONV1</b>	2.21	0.99	0.97	0.683	0.398
	<b>CONV2</b>	2.87	0.94	0.88	-0.124	0.535
	<b>CONV3</b>	3.71	0.98	0.96	-0.877	0.544
	<b>CONV4</b>	3.37	1.04	1.08	-0.784	0.238
<b>Convenience</b>	<b>TECH1</b>	3.09	0.96	0.93	-0.771	0.168
	<b>TECH 2</b>	3.30	0.78	0.60	-0.053	-0.083
	<b>TECH 3</b>	2.87	0.94	0.88	-0.124	0.535
	<b>TECH 4</b>	3.77	0.99	0.97	-0.665	-0.001
	<b>TECH 5</b>	3.29	0.91	0.84	-0.975	0.735



**Table 2: Cronbach's Alpha for Service Quality dimensions**

Construct	Variable	Alpha ( $\alpha$ )	Alpha ( $\alpha$ ) if variable deleted	Variable to total correlation		
				Pearson	Spearman	Kendall
<b>Reliability</b>	REL1	<b>0.886</b>	0.757	0.316	0.281	0.230
	REL2		0.791	0.428	0.411	0.336
	REL3		0.809	0.495	0.457	0.380
	REL4		0.762	0.517	0.504	0.419
	REL5		0.828	0.402	0.401	0.332
<b>Responsiveness</b>	RESP1	<b>0.846</b>	0.716	0.439	0.406	0.341
	RESP2		0.705	0.476	0.516	0.430
	RESP3		0.827	0.589	0.534	0.453
	RESP4		0.822	0.472	0.434	0.365
<b>Assurance</b>	ASS1	<b>0.762</b>	0.722	0.457	0.428	0.360
	ASS2		0.714	0.442	0.456	0.381
	ASS3		0.791	0.531	0.487	0.414
	ASS4		0.717	0.590	0.517	0.428
<b>Empathy</b>	EMP1	<b>0.778</b>	0.722	0.471	0.449	0.374
	EMP2		0.846	0.507	0.498	0.416
	EMP3		0.809	0.558	0.569	0.477
	EMP4		0.806	0.472	0.463	0.386
<b>Tangibles</b>	TANG1	<b>0.802</b>	0.809	0.659	0.651	0.563
	TANG2		0.733	0.652	0.656	0.560
	TANG3		0.774	0.457	0.442	0.369
	TANG4		0.809	0.558	0.565	0.459
<b>Convenience</b>	CONV1	<b>0.724</b>	0.757	0.599	0.612	0.518
	CONV2		0.736	0.464	0.480	0.400
	CONV3		0.731	0.498	0.481	0.403
	CONV4		0.716	0.605	0.549	0.460
<b>Technical</b>	TECH1	<b>0.816</b>	0.739	0.481	0.462	0.386
	TECH 2		0.731	0.517	0.516	0.438
	TECH 3		0.795	0.503	0.437	0.361
	TECH 4		0.822	0.560	0.564	0.476
	TECH 5		0.722	0.286	0.273	0.223

Questionnaire was designed on five point Likert scale. Respondents were asked to rate each variable for its level of importance according to their point of view. The scale used in this analysis ranges from 1=least important to 5=most important. Common statement of each question was, **“Please rate the following quality parameter according to its level of importance in Quality Management for hotel industry”**. Questionnaire responses received from the customers for each variable are presented as follows:

### ***Normality***

Normality is the most fundamental assumption in multivariate analysis which greatly influences the validity of the results. If the variation from the normal distribution is sufficiently large, all the statistical tests are invalid. Therefore, non-normal variables identified should be handled before further examination. In this analysis, Skewness and kurtosis values were used to measure normality of the independent and dependent variables. If a Skewness or Kurtosis value exceeds +1.00, a non-normal distribution is identified. In this statistical analysis, since all items were having Skewness and Kurtosis value less than 1 or negative. Therefore all items were assumed to be normally distributed and used for further analysis.

### ***Test of Reliability***

Reliability is an assessment of the degree of consistency between multiple measurements of a variable. The internal consistency of measures is an indication of the homogeneity of the items which measures, the same construct. Thus to obtain a high reliability of a measure, the items should be highly correlated with another to independently measure the construct. Cronbach's alpha is the most popular test of inter- item consistency, which is useful for interval scaled variables. From the Cronbach alpha's standpoint, the closer the co-efficient alpha is to 1.0, the higher the internal consistency reliability. In general, the cut-off

of reliability Cronbach alpha is 0.6. It means that only the reliabilities  $\geq 0.60$  are acceptable. The results showed all alpha coefficients ranged from 0.72 to 0.88 indicating good consistency among the items within each dimension.

### ***Findings***

For improving reliability in service quality and customer satisfaction, Reservation and confirmation of accommodation is most important factor. Service provider should fulfil all commitments made to the customer in terms of services, tariffs and billing at right time and value to enhance better customer relation.

If quick response system to requirements and complaints may be developed then customer relation can be improved.

If infrastructure and environment of hotel is peaceful and staff behavior towards customers is gentle and polite then it can enhance customer relations and satisfactions.

Cleanliness and rooms and bathrooms with availability of all basic need is an important factor for better customer satisfaction.

Systematics arrangements of dining area and effective dining service to the customers also have great impact on quality management and it can make positive image and reputation of organization in customer's mind.

Since in hospitality business customers can arrive from any region, community and culture and availability of their desired characteristics of food is a prime concern so if hotels can provide multi-cuisine food, then it can enhance customer relations.

If 24 Hour continuous and uninterrupted power backup will be provided, then it can enhance customer relations.

## 7. CONCLUSION

Hotel industry is a rich field that is waiting to be harvested. Profitable business ventures rely upon effective marketing principles. The front office must serve as a bridge between the customers and the service departments of the hotels. For the prosperity of a hotel it is necessary that the hotel authorities should develop and maintain communication of guest requirements between the service and non-service departments of the hotels. Hence to conclude the success of any organization begins and ends with the hotel itself. Make the right impression first by making the first impression right.

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