

## **Relationship between Service Quality and Customer Satisfaction in Restaurants in Los Olivos, Peru**

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### **Abstract**

The objective of this research is to determine the degree of relationship between the quality of service and customer satisfaction in the restaurants of the Los Olivos district, in the year 2021. The study is based on a quantitative and correlational approach, with a non-experimental design and cross-sectional classification. To measure the two variables, a sample of 381 customers visiting restaurants in Los Olivos was taken. For service quality, the Servqual model was used, and for satisfaction, a tool based on factor analysis was used. A survey of 43 questions with a Likert scale from 1 to 7 was applied, and the following results were obtained: the general hypothesis was accepted with a significant coefficient ( $p$ -values  $< 0.05$ ). Regarding the specific hypotheses, reliability, empathy and tangibles are accepted with significant coefficients ( $p$ -values  $< 0.05$ ) in contrast to the dimensions of responsiveness and safety which are rejected with non-significant coefficients ( $p > 0.05$ ). In conclusion, restaurants should train staff to serve efficiently and improve safety, as well as modernise their facilities and technological capacity to ensure their success.

### **Keywords**

Service Quality, Servqual Model, Customer Satisfaction, Customer Relationship, Restaurant

## 1. Introduction

For companies in recent years, service quality has become an essential and priority pillar for their growth and development, given that customers are increasingly rigorous and demanding and, therefore, require the service or products they obtain to be of high quality and meet their expectations (Galbán et al. 2013). The importance that service quality has taken on nowadays has not been accidental, but rather can be attributed to the effect of the progress that humanity perceives and which leads to continuous changes in each person setting their needs as a user (Arévalo et al. 2020). More and more corporations are joining efforts to specify, calculate and improve the quality of service, as this variable provides companies with multiple benefits such as increased productivity, stimulation of employees, differentiation from the competition, loyalty and attraction of new customers (Cruz et al. 2013). In this way, it anticipates the needs of consumers by applying continuous improvement processes (Useche and Anís 2012). On the other hand, customer satisfaction has become a necessity for any organisation, as this variable intervenes in multiple ways in the management of a company, such as in its reputation and image, in the level of market approval and; therefore, in the achievement of effectiveness, efficiency and effectiveness to be achieved in the short and medium term (Romero et al. 2018). According to Torres et al. (2018), customer satisfaction is of vital importance for companies, since sales come from two groups: new buyers and those who are loyal, being more expensive and arduous for companies to attract new customers than to retain the usual or frequent consumers. Based on these concepts, the objective was to determine the degree of relationship between the quality of the service and the satisfaction of the clients in the restaurants of the Los Olivos district in the year 2021.

## 2. Literature Review

Service quality is the set of aspects and characteristics of a product that relate to its ability to satisfy expressed or latent needs, i.e., measuring the degree of a customer's satisfaction with the product or service provided by organisations (Castro and Paccha 2017). Similarly, quality is defined as a form of attitude that is related to satisfaction and originates from making comparisons of expectations with perceptions of quality when a customer has a service experience (Monroy and Urcádiz 2020). It is from multiple definitions that formulas have been developed to better support its understanding. In this way, the SERVQUAL is used, which is responsible for assessing customer perception from five dimensions: (a) reliability, (b) responsibility, (c) security, (d) empathy, and (e) tangibility (Peñaranda et al. 2019). Likewise, service quality is important for organisations, because it allows them to have an organisational culture focused on the customer, as well as a management of the variety of offers and diversification of products to the consumer's liking (Ramírez et al. 2013).

On the other hand, customer satisfaction is the expression of an emotion that the customer has about a product or service at a given moment that can be lasting or transitory; for this reason, it is necessary to fulfil what organisations promise their customers in a standardised way so that there are no distortions in the requirements of the product or service (Zarraga et al. 2018). Likewise, it is possible to find several approaches, one of them considers satisfaction as the result or response of the consumption experience, specialists define satisfaction as an emotional response to experiences related to the purchase of certain products and services (Monroy and Urcádiz 2020). Finally, customer satisfaction is important for organisations because it provides insight into customers' perception of the service they receive (Villodre et al. 2014). For the study, it is proposed to test how service quality is related to customer satisfaction in restaurants in the district of Los Olivos in the year 2021, for which the following specific hypotheses were designed:

H1. Reliability is related to customer satisfaction in restaurants in the district of Los Olivos in 2021.

Zamudio et al. (2005) in their study on the use of the servqual in the verification of the quality of the services of information units, mention that reliability is mainly based on technical aspects of the organisation in charge of providing an adequate service, as well as the level of training of the workers. Along these lines, Sánchez et al. (2010) investigate user satisfaction in five-star hotels in the ZMG, compare the quality of service and its dimensions, and find that the levels of reliability are positive and significant, generating an acceptable level of satisfaction among clients, due to the fact that the service meets their expectations.

On the other hand, Ibarra et al. (2011) developed a study on the application of the servqual method applied to cinemas, Cinemark and Cinépolis, in a case study of two organisations of the same category, they point out that reliability is acceptable in Cinemark, however, in Cinépolis, reliability is not acceptable, because customers question the service provided, employees do not show responsiveness to the doubts that customers may have.

H2. Responsibility is related to customer satisfaction in restaurants in the Los Olivos district in 2021.

Gonzales (2015) in his study on the evaluation of perceived service quality in banking institutions through the servqual scale, points out that responsibility is important in banking institutions, due to the fact that customer service times are what customers value at the time of service, however, when the dimension is critical, joint actions should be taken that lead to the improvement of the main functions, so that the dissatisfaction gap does not grow. Likewise, Vargas et al. (2010) point out that responsibility is comprised of response elements that are related to customer satisfaction, such as the necessary and sufficient time, the willingness to help and the ability to deal with difficulties. For the case investigated, workers show flexibility and ability to deal with the difficulties they face. On the other hand, Rubio (2014) in his study on the quality of customer service, mentions that responsibility is part of the professionalism of the attention, as well as the interest in the situations of customers, the clarity of the information provided by the offices and the speed of response to consumers, therefore these elements are related to customer satisfaction that depending on the capabilities of the organisation will be fruitful in the services they provide.

H3. Safety is related to customer satisfaction in restaurants in the Los Olivos district in 2021.

In a study on quality in fitness centres by Mosquera et al. (2019), they mention that the relationship between service safety and customer satisfaction depends on the level of trust that organisations transmit to their customers; correct attention increases the degree of customer satisfaction with the service received. Similarly, Suarez (2016) in his study on the application of the servqual model points out that if the service is timely and the attention is friendly, these characteristics increase the levels of trust, generating security among customers.

On the other hand, Morillo et al. (2011) in their study on the measurement of service quality in financial institutions, point out that, if the entity presents problems in the security dimension, in the areas of direct dealings with customers, this must be improved, as it generates distrust in the service, the user perceives that the inconveniences they may have are not resolved and, therefore, creates a climate of uncertainty about the entity.

H4. Empathy is related to customer satisfaction in restaurants in the Los Olivos district in 2021.

Regarding this dimension, Suarez (2016) in his study conducted in Peru about the level of service quality applying the Servqual model in a language centre, concluded that the personalised attention of the teacher and the coexistence of schedules show a medium satisfaction in the user, because the weighted average of the answers based on the Likert scale is 3.39. On the other hand, Stefano et al. (2008) in their research on the evaluation of the quality of services provided in driver training centres using the Servqual scale and the 5 GAPS model, found that the empathy dimension and management were below the expected level. While Blanco and Rivero (2009) point out that the empathy dimension has a higher proportion of progress, noting that for customers it is very significant what concerns the company's commitment to deliver the service on time and understanding of their problems.

H5. Tangibility relates to customer satisfaction in restaurants in the Los Olivos district in 2021.

Henoa (2019) in his study on service quality and perceived value as antecedents of customer satisfaction in telecommunications companies in Colombia, found that tangibility is not as relevant for a customer, since visits to customer service points tend to be occasional and are used for reasons of closing or opening business relationships or complaints, although it is important that the service points are properly decorated, clean, with modern and clearly attractive equipment, what users value most effectively and according to their expectations, is that the service is reliable and works well from the beginning, with current and reliable information, agile and friendly, and as far as possible very individualised and according to the needs of the customers. For Mejías et al. (2018) in their study based on the impact of service quality on customer satisfaction in a maintenance company, the tangibility dimension has a positive influence on customer satisfaction, which will allow the company's management to focus its efforts on optimising service quality.

### 3. Methods

The present study took a quantitative, applicative and correlational approach, developed in the district of Los Olivos. The population was 40 000 customers, from which a random sample of 381 consumers was selected with a confidence level ( $z$ ) of 95% and a probability of error ( $e$ ) of 5%. To measure service quality, the Servqual model proposed by Matsumoto (2014) was used, from which 5 dimensions (reliability, responsiveness, safety, empathy and tangibility) are taken as part of the methodological application. Each dimension has a total of 22 questions for the whole instrument. Its usefulness is based on identifying the expectations and perceptions of customers regarding the quality of a product or service offered by establishments. For this research, a Likert scale from 1 to 7 will be used, where 1 represents strongly disagree, 2 disagree, 3 somewhat disagree, 4 neither agree nor disagree, 5 somewhat

agree, 6 agree and 7 strongly agree. Table 1 shows the reliability calculation for the service quality variable and its dimensions. In the data tabulation, the Cronbach's Alpha index for the variable is 0.943 and for the dimensions it was 0.741.

Table 1. Internal consistency of the service quality scale

Dimensions / Variables	Number of Items	Cronbach's Alpha
Reliability	06	0.880
Sensitivity	03	0.787
Safety	04	0.796
Empathy	05	0.802
Tangible elements	04	0.741
Quality of service	22	0.943

The reliability of customer satisfaction and its dimensions are shown in Table 2. A coefficient of 0.933 was found for customer satisfaction and between [0.718 - 0.880] for its dimensions.

Table 2. Internal consistency of the customer satisfaction scale.

Dimensions / Variables	Number of Items	Cronbach's Alpha
Perceived functional quality	05	0.814
Perceived technical quality	03	0.718
Perceived value	04	0.763
Trust	06	0.812
Expectations	03	0.694
Customer satisfaction	21	0.933

For the statistical treatment, in a first phase, a descriptive statistical analysis of the variables studied was carried out, using the median, mean, minimum and maximum values, as well as the dispersion values (standard deviation and variance). These analyses were presented in tables for better visualisation and interpretation of the data. In the second phase, normality tests were applied to determine the normal distribution of both variables and by means of the Kolmogorov-Smirnov test, the analysis of variances with the Fisher's F statistical test and the Student's T hypothesis tests with a significance level of  $\alpha=0.05$ .

With regard to ethical aspects, the research carried out did not manipulate the data obtained through the data collection tools. Likewise, it is noted that this study does not show plagiarism and the citations used in the research were used correctly.

#### 4. Results and Discussion

The general hypothesis of the study Relationship between service quality and customer satisfaction in restaurants in Los Olivos district, year 2021 is accepted, according to the estimated values shown in Table 3, there is a significant result, with a p-value =  $0.001 < \alpha = 0.05$ . These statistical results support the researcher's hypothesis that service quality is related to customer satisfaction.

Table 3. Coefficients of contrasts obtained for the general hypothesis in the original sample and sampling simulation.

General hypothesis	Original sample			Sampling simulation*		
	$\beta_{NS}$	$\beta_S$	T	Sesgo	E. E	p-value
(Constant)	1.269		10.460	0.000	0.156	0.001
Quality of Service	0.754	0.833	29.293	0.00007	0.031	0.001

\*: Bootstrap with 1000 simulations and seed of 3000;  $\beta_{NS}$ : Unstandardised beta coefficient;  $\beta_S$ : Standardised beta coefficient; S.E: Standard error.

Table 4 shows the coefficient of determination  $R^2=0.693= 69.30\%$ , indicating that customer satisfaction is explained by 69.30% because the elements of tangibility, reliability, security, empathy, and sensitivity are related to this variable.

Table 4. Explained variance of Customer Satisfaction for the general hypothesis.

R square	Standard error of the estimate
0.693	0.41237
Predictors: (Constant), Quality of Service.	

In relation to specific hypothesis 1, it is stated that reliability is related to customer satisfaction. Table 5 shows a significance of  $p<0.05$  and an unstandardised  $\beta$  coefficient of positive reliability ( $\beta=0.169$ ). For specific hypothesis 2, it is stated that safety is related to customer satisfaction and a significance of  $p>0.05$  and an unstandardised  $\beta$  coefficient of positive reliability ( $\beta=0.083$ ) is observed. Similarly, specific hypothesis 3 states that responsiveness is related to customer satisfaction with a significance of  $p>0.05$  and a positive unstandardised  $\beta$ -reliability coefficient ( $\beta=0.074$ ). According to specific hypothesis 4, empathy is related to customer satisfaction, with a significance  $p<0.05$  and a positive unstandardised  $\beta$ -reliability coefficient ( $\beta=0.202$ ). Finally, specific hypothesis 5 states that tangibles are related to customer satisfaction and a significance  $p<0.05$  and a positive unstandardised  $\beta$ -reliability coefficient ( $\beta=0.241$ ) is observed.

Table 5. Coefficients of contrasts obtained for the specific hypotheses in the original sample and sampling simulation.

Specific hypotheses	Original sample			Sampling simulation*		
	$\beta_{NS}$	$\beta_S$	T	Sesgo	S. E	p-valor
Constante	1.192		9.644	0.000	0.158	0.001
FI -> SC	0.169	0.232	4.938	0.002	0.035	0.001
SE -> SC	0.083	0.112	2.263	-0.003	0.047	0.083
SG -> SC	0.074	0.094	2.039	-0.002	0.058	0.202
EM -> SC	0.202	0.239	4.846	0.003	0.059	0.001
ET -> SC	0.241	0.291	6.683	0.001	0.054	0.001

\*: Bootstrap with 1000 simulations and seed of 2000;  $\beta_{NS}$ : Unstandardised beta coefficient;  $\beta_S$ : Standardised beta coefficient; S.E: Standard error; FI: Reliability; SE: Sensitivity; SG: Safety; EM: Empathy; ET: Tangible Elements.

Table 6 shows the coefficient of determination  $R^2=0.702=70.20\%$  where it was found that perceived satisfaction in restaurants is explained with 70.20% by the joint effect of its tangible elements, reliability, security, empathy, and sensitivity.

Table 6. Explained variance of Satisfaction for the specific hypotheses.

Adjusted R-squared	Standard error of the estimate
0.702 <sup>a</sup>	0.40586
Predictors: (Constant), Tangible Elements, Reliability, Security, Empathy, and Sensitivity	

The purpose of this research is to determine the degree of relationship between the quality of service and customer satisfaction in the restaurants of the Los Olivos district, in the year 2021. The main findings of this study are discussed below. The general hypothesis that service quality is related to customer satisfaction in restaurants in the Los Olivos district in 2021 is accepted. These results confirm the studies of Vilca et al. (2021) where they point out that the relationship between service quality and customer satisfaction of Banco de la Nación in Peru, have a direct relationship with a significant level of "p" chi-square value of 0.003, this results mean that bank workers provide

good customer treatment, however, on certain occasions, employees do not comply with immediate attention due to high demand from users.

In relation to specific hypothesis 1, the results determined that this dimension is significantly and positively related to customer satisfaction. These results correspond with the study of Barinotto (2019) on customer satisfaction regarding the service quality of the collaborators and states that the service quality is regular in relation to customer satisfaction, however, in his results he obtains a high reliability regarding satisfaction, causing a level of confidence with customers to revisit the restaurant.

On the other hand, specific hypothesis 2, which states that safety is related to customer satisfaction in restaurants in the district of Los Olivos in 2021, the results determined that this dimension is not significantly related to customer satisfaction. These results coincide with the study by Silva et al. (2021), as they conclude that the correlations between safety and customer satisfaction are too low not causing a practical implication with customers, i.e., if the customer feels insecure with the services received in the establishment, he/she would have an unfavourable opinion regarding the service.

Similarly, specific hypothesis 3 states that responsiveness is related to customer satisfaction in restaurants in the district of Los Olivos in 2021. The results found that this dimension is not significantly related to customer satisfaction. These results correspond with the study by Causado et al. (2019) and mention that the sensitivity or responsiveness of staff fails to respond urgently to customer requirements, which is why customers are dissatisfied, the measures to be taken are to respond promptly and efficiently, reducing waiting times.

According to specific hypothesis 4, empathy is related to customer satisfaction in restaurants in the Los Olivos district in 2021. The results found that this dimension is significantly and positively related to customer satisfaction. In this regard, Cadena et al. (2016), in their study on the measurement of customer service quality in restaurants in Sonora, Mexico, mention that empathy reflects a good perception of service quality, i.e., the service provides personalised attention by employees, this interaction makes the dimension better valued and thus satisfies the needs of customers.

Finally, specific hypothesis 5 states that tangible elements are related to customer satisfaction. The results found that this dimension is significantly and positively related to customer satisfaction. In this sense, Silva et al. (2021) point out in their research on the relationship between service quality, customer satisfaction and customer loyalty in a commercial company in Mexico, that tangible aspects play a strategic role in customer satisfaction levels, because elements related to the appearance of facilities, staff, equipment, are highly valued considerations in the customer evaluation process for their conformity.

## **5. Conclusion**

It was determined that there is an acceptable relationship between service quality and customer satisfaction in restaurants in the district of Los Olivos in 2021. The hypothesis put forward in this research is established as valid. Likewise, service quality has an impact on customer satisfaction and has repercussions on the continuous improvement of the infrastructure and services offered.

The dimensions of reliability, empathy and tangible elements were found to have a positive influence on customer satisfaction in restaurants, while sensitivity and safety had a negative influence on customer satisfaction. Tangible elements have a greater positive impact on customer satisfaction. Therefore, it is necessary for restaurants to improve the image of their staff and strive to provide facilities with reliable technological equipment to their customers. Restaurants in the district of Los Olivos in 2021 should prioritise the modernisation of their facilities and technological equipment, as these are features that the customer evaluates along with the quality of the food and the service. If they comply with these three elements that relate to and influence satisfaction, it would be an important support to meet the objectives and profitability of the restaurants.

It is recommended for future research on the relationship between service quality and customer satisfaction in restaurants, to classify the speciality of the restaurants (Creole, marine, traditional) and to extend the study to Metropolitan Lima, in order to achieve quantitative research and obtain more precise results that will allow the owners of these establishments to make better decisions to satisfy the needs and desires of their customers.

One of the limitations encountered during the development of the study was that the surveys were not carried out in person, due to the current situation (Covid19-Pandemia), which meant that it took longer than expected to obtain the results of the surveys.

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