

Evaluation and improvement process in quality of service: case studies of restaurants in Manabí

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Abstract

The objective of this research is to evaluate the quality of restaurant services of Manabí, a local offer of Ecuador; as a basis for systematic improvement. Through a descriptive, non-experimental and cross-sectional study; Difference 5 of the Servqual Model was contextualized, adding the aspects of convenience of schedules, attractiveness and understanding of the menu, value for money; among others; which integrated with improvement tools through time study, constitutes the main contribution of the study. Its application in two Manabí restaurants allowed the validation of the usefulness of the proposed instrument for the evaluation and improvement of the quality of restaurants in the Manabí context. In the case of a traditional restaurant, a reduction in service times was achieved by determining effective service standards during peak hours; In the modern one, the need for differentiation strategies based on age is established.

Keywords: Servqual model; quality of services; restaurants, time study.

Proceso de evaluación y mejora en la calidad del servicio: caso de estudio restaurantes en Manabí

Resumen

El objetivo de esta investigación es evaluar la calidad de los servicios en la restauración manabita, autóctona oferta del Ecuador; como base para la mejora sistemática. Mediante un estudio descriptivo, no experimental y transversal; se contextualizó la diferencia 5 del Modelo Servqual, añadiendo los aspectos de conveniencia de horarios, atractivo y comprensión de la carta-menú, relación calidad-precio; entre otros; lo que, integrado con herramientas de mejora mediante el estudio de tiempos, constituye el aporte principal del estudio. La aplicación en dos restaurantes manabitas permitió la validación de la utilidad del instrumento propuesto para la evaluación y mejora de la calidad de la restauración en el contexto manabita. En el caso de un restaurante tradicional se logró la disminución de los tiempos de atención por la determinación de normas de servicio efectivas en horarios pico; en el moderno se establece la necesidad de estrategias de diferenciación en torno a la edad.

Palabras clave: modelo Servqual; calidad de los servicios; restaurantes; estudio de tiempos.

1 Introduction

In Latin America, some countries have sought to position themselves as tourist destinations, using gastronomy as a channel for cultural expression and take advantage of natural resources. Ecuador has an autochthonous and varied gastronomy that makes both national and foreign consumers

feel attracted to try it, and this experience is enriched by an adequate service culture.

The cuisine of the Manabí province is one of the most recognized and widely-known of Ecuador. Some dishes stand out, such as: plantain empanadas, stuffed with cheese or beef and prepared according to traditional custom; seco de gallina criolla, encebollado, tortillas de maíz, corviche, ceviche, among others.

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These dishes can be enjoyed by national and foreign customers in restaurants located in the coastal area, on the highways and in the cities themselves. These restaurants may have different kinds of infrastructure and amenities, some more rustic and simple and some more modern-looking; However, the expectations regarding the quality of the food and the service are similar.

Manabitan cuisine is recognized for its exquisite flavors and traditional methods of preparation, which transcend the national gastronomy; however, some research, such as that of Castro-Farías [1], suggests that average levels of satisfaction are influenced by aspects such as: opening hours, menu comprehensibility, service culture and value for money. That is why it is necessary to evaluate the perceived quality of instruments appropriate to these expectations, in a context where administrative decisions are often made empirically.

It is of vital importance to define and validate instruments that allow the evaluation of the quality of these catering services, as a way to establish actions that move these institutions towards constant improvement.

Process reengineering can be a great competitive

advantage for companies, given that, redesigning processes to obtain improvements may increase performance and even reduce costs, if done properly [1]. The first step to improve food service processes is to evaluate them from the customer's perspective.

Zeithaml et al. [2] defined perceived quality as: "the difference between the perceptions of the customer and the perceived quality of the service". This definition is the basis for the development of its main proposal: The Servqual Model.

The 1991 version of said instrument, establishes 5 parameters and 22 questions, as shown in Fig. 1. The dimensions are [3]:

- Reliability: refers to the ability to execute the promised service reliably and carefully. That is, that the company fulfills its promises, on deliveries, service provision, problem solving and pricing.
- Responsiveness: This is the willingness to assist users and to provide them with prompt and adequate service. It refers to attentiveness and promptness in dealing with requests, answering customer questions and complaints, and solving problems.

Table 1.
Servqual Applications & Service Process Improvement Tools

BR	Sector	Comments
[4]	Guarantee Court	The highest levels of expectations were found in the dimensions of reliability, security and tangible aspects; for which the main dissatisfactions are identified.
[5]	Hospital registration and check-in process	Considers integrating patient satisfaction with process improvement tools (Lean principles, VSM: Value Stream Map), which reduced complaints by 40%.
[6]	Pizzeria Establishment	Reliability and tangibility were affected variables, caused essentially by the lack of technologies with which to provide the service.
[7]	Restaurants	The authors used an instrument in order to adapt Servqual in restaurants with the variables: internal service quality, market orientation and organizational citizenship behavior.
[8]	TAST Steakhouse in Taiwan	Studies the importance and attributes of cognitive satisfaction with service quality.
[9]	National Parks	These authors propose that service quality is understood as the discrepancies between expectations and perceptions, and that specific factors are defined on the basis of each area of interest.
[10]	Telecommunications	The components of logistics, reliability, responsiveness, security and comprehension are used.
[11]	General model for services	This model uses terms such as performance measurement and service industry, combining the benefits of Servqual with RDM, balanced scorecard, etc.
[12]	Banking sector	This work recognizes the Servqual model as the basis on which other work has been developed, validating a contextualization of it.
[13]	Higher education	This study links constant improvement with the evaluation of service quality using the Servqual model, adjusted for training programs.
[14]	Water and sewer company	These authors contextualize Servqual and integrate it into the quality deployment diagram (QDF) in order to better understand customer needs.
[15]	Banking sector	This work contextualizes Servqual by employing a conclusive statistical analysis.
[16]	Public hospital	These authors propose a model that prioritizes the attributes of the quality of services, based on the Servqual scale, which is contextualized
[17]	Hospital de especialidades	This work uses the modified Servqual model, considering aspects related to recreation and sports, to promote health tourism in a general sense.
[18]	Hospitals	The Servqual model is integrated with the Saaty analytical hierarchy (AHP) in order to classify corporate hospitals.
[19]	Pharmaceutical studies	This work deals with the question of whether Servqual or Servperf (satisfaction versus performance) is most appropriate. It was discovered that, in the studied context, satisfaction is more predictable, unlike that which had occurred in other work by the same authors.
[20]	Users of cloud service platforms	These authors contextualize and perform convergent validity tests in order to establish the consistency of the modified Servqual scale.
[21]	Restaurants	The value of empathy is shown.
[22]	Restaurants and hospitality	These authors employ a simulation to analyze the differences in the service provided by robots and human personnel by using from Servqual.
[23]	Filipino fast-food restaurant	This work establishes that food safety is an important attribute as regards satisfaction.
[24]	General	These authors state that multiplicative models predict service quality and customer satisfaction better than additive models.
[25]	Restaurants	Servqual is integrated with with a Petri net in order to improve response capacity in a Colombian restaurant.
[26]	Restaurants in the non-state sector	The evaluation of service quality is integrated with improvement tools such as timing, process simulation, and six sigma methodologies.

Source: Own elaboration

- Assurance: It is the knowledge and attentiveness of employees and their ability to inspire credibility and trust.
- Empathy: Refers to the level of individualized attention offered by companies to their customers. It should be conveyed through personalized service or service tailored to the customer's taste.
- Tangible elements: It refers to the appearance, aesthetics and material amenities, such as infrastructure, equipment, resources, personnel, etc., that are the most important elements of a company's business.

It is important to pair the evaluation of perceived quality through the Servqual Model with other process improvement tools because the end goal is to obtain actual significant changes in the service.

Table 1 shows applications of Servqual in various services, and its integration with other tools that allow the improvement of these service processes.

The versatility of the Sevqual model and its wide use for the evaluation of the quality of services of diverse nature, including catering, can be appreciated. Nonetheless, variations can be observed in the making and application of surveys, depending on the context and the number of items.

Another aspect to consider in the previous review, there is a tendency to analyze the incidence of sociodemographic variables such as sex, age and purchasing power, as well as the close relationship between evaluation, diagnosis and orientation of service quality improvement programs.

Furthermore, Wu et al. [8]; Jasmon A., et al. [11]; Franceschini et al. [14]; Parrado- Hernández et al. [26] and Causado-Rodríguez et al. [25] all integrate the Servqual Model with tools for process improvement. These tools are based on: the study and measurement of work (timing), simulation, six sigmas, Lean and VSM principles, and are focused on improving the response capacity in the cycle of the services studied. The above establishes the usefulness of Servqual for the evaluation of the quality of services and its integration with tools for process improvement.

In restaurant services, other models related to the Servqual scale have been developed, among which we can mention:

DINESERV: Instrument proposed by Stevens et al. [27] for measuring service quality in restaurants. It is based on the SERVQUAL model; It proposes 5 categories, it establishes 29 elements, including aspects related to hygiene, the menu, among others.

Servperf Model establishes the evaluation only of perceptions [28].

Tangserv adds tangible and social elements through three parameters: Layout and design, in relation to factors such as interior decoration and furnishings; product and service, considering the presentation and variety of food; and environmental and social, including music and temperature.

Campoverde-Aguirre, et.al, [29]; they state that this model is questionable because of its unclear methodology. Given the limitations, DINESCAPE proposes a scale of six factors: aesthetics of the facilities, environment, lighting, service product, design, and social factors.

It is proposed by [29] that this model offers a reliable statistical analysis, although only focusing in the inner

processes of the restaurant. These authors propose a contextualization for the measurement of the quality of service in gastronomic fairs through four categories: reliability, tangibility, sensitivity and adequacy.

The above models constitute contextualization of Servqual for the evaluation of the quality of service in gastronomy and catering. However, they must be adjusted to the quality characteristics valued by customers in different contexts.

According to the problem stated above, it is necessary to establish questions concerning: How to evaluate and improve the quality of restaurant services in the Manabí province, which attributes require most attention and what tools can be used to improve service processes.

1.1 Objective

The objective of this study to evaluate the quality of services, using a valid and contextualized instrument for restaurants in Manabi, as a basis on which to improve service processes.

2 Methodology

The research had a quantitative, cross-sectional, non-experimental, descriptive, and correlational approach; using the survey as a technique for collecting information, applied to two case studies of the Manabi restaurant sector.

The study was carried out by developing the following procedure (Fig. 1). The first step of the procedure was established on the adequacy of the measurement instrument (Difference 5 of the modified Servqual Model) and its validation in the restaurants that were studied. The remaining steps could be replicated in other restaurants in Manabi and in general, under the principles of flexibility and relevance.

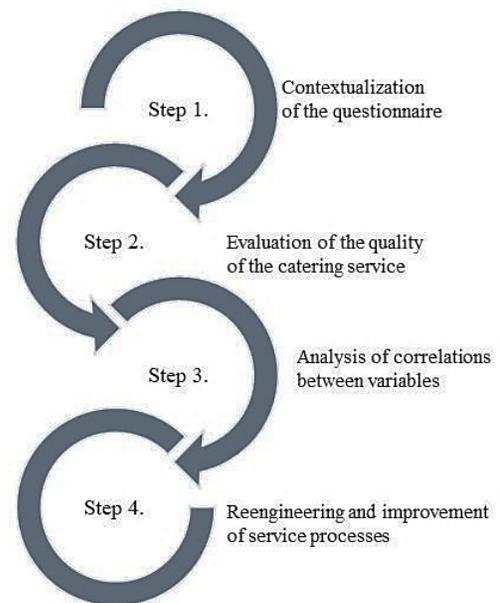


Figure 1. Procedure used to evaluate and improve the quality of restaurant services.

Source: Own elaboration

Step 1. Contextualization of the questionnaire

The questionnaire employed in the survey was developed with the help of 9 specialists in gastronomic service management who had specific training in the area, had worked for more than 5 years in the Manabí restaurant sector and that had done studies in the area of service quality. The above was corroborated by the coefficient $k = \frac{1}{2}(k_c + k_a)$, where k_c represents a measure of knowledge of the topic being researched and k_a is a measure of the sources of argumentation of potential experts [30].

The dimensions and questions of the Servqual model were listed, adding DINESERV AND DINESCAPE; the specialists were subjected to a first round of questions to add other variables (items) to those established by models to evaluate the quality of the restaurant service.

A survey was subsequently applied to these specialists, who were asked to evaluate a list of possible questions and weigh the importance of each one for the evaluation of the corresponding dimension. Agreement in expert judgment was established using a non-parametric Kendall test. The demonstrated consensus of the experts established the inclusion of those questions that attained median values in the “important” and “very important” categories.

After establishing validity by means of expert judgment, the internal consistency of the instrument was analyzed using Cronbach's alpha and the principal components analysis, which had to have favorable values for values greater than 0.7 in the first case, and 0.6 in the case of KMO. The scale used included five categories: Much less than expected, less than expected, equal to expected, more than expected and much more than expected.

The total list was submitted to the judgment of the experts who, by means of coincident judgments, were supported by the Kendall test

(Table 2) with an asymptotic Sig of 0.00. They chose the median values in the categories of “important and very important”. A total of 17 questions were chosen.

The questionnaire, with 17 questions, was applied as a pilot test to 100 clients, considering a scale of 5 levels from “much less than expected” as the lowest, to “much more than expected” the highest, which allows to establish a difference in the customer's mind between expectations and perceptions.

This analysis allowed the improvement of the formulation of some questions for a better understanding in the Manabí context. Then, the sample for finite populations was obtained, with a sampling error of 4.96% for a total of 290 valid questionnaires applied in the month of March 2023, in consideration of an average monthly visit of 1000 clients.

An exploratory factor analysis was carried out, which allowed us to reduce and better interpret the quality

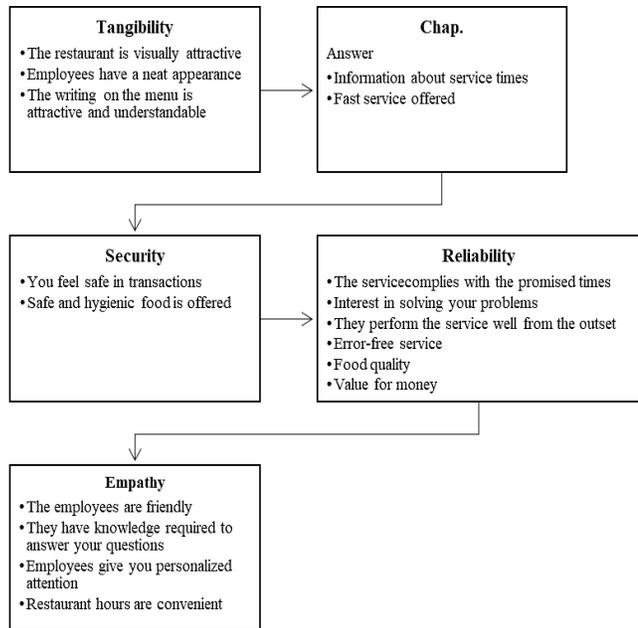


Figure 2. Established questions and dimensions
Source: Own elaboration

dimensions of the services evaluated. Subsequently, a confirmatory factor analysis showed a Kaiser-Meyer-Olkin Measure value of 0.759, with a significance of 0.000 and a determinant close to, but not equal to zero, which indicates no presence of an identity matrix. Additionally, the internal consistency of the instrument was validated and yielded a Cronbach's alpha value of 0.937, thus denoting the one-dimensionality of the variable studied. Finally, the 5 dimensions and 17 questions included are shown in Fig. 2.

Highlights include additions to the original Servqual Model:

- The menu is attractive and understandable
- Restaurant hours are convenient
- Safe and hygienic food is offered
- The quality of the food
- The quality-price ratio

Step 2. Evaluation of the quality of the catering service

The study was carried out in two restaurants that represent the context of manabitan cuisine and culture, and that have been in business for more than 5 years. These have achieved the loyalty of a group of customers and have improved their market shares since their launch, and this was the reason for selecting them. In both cases, the sampling used was for convenience, in the month of March 2023, the surveys were applied in person to customers.

Case 1 corresponds to a restaurant located in the city of Chone that offers traditional dishes. It serves approximately one thousand customers per month, which made it possible to establish a sample of 290 customers for the survey. This allowed statistical inference by segments, based on a sampling error of 4.96%.

Case 2 is located in the city of Portoviejo, the capital of Manabí, and specializes in American and Argentine cuts of

Table 2.

Kendall non-parametric test values.	
N	9
Kendall's W ^a	.522
Chi-Square	112,833
Df	24
Asymp. Next.	.000

Source: Own elaboration

meat. In their promotional messages they state: “To cross our doors is to begin a culinary, visual and sensory journey, where we share our experiences collected from around the world.” It has 1200 reservations per month, which required a sample of 292 in order to obtain conclusive results with a confidence level of 95 % and a sampling error of 5%.

In order to interpret the results, the measures of central tendency (median and mean) were analyzed for each question and parameter. Deficiencies were identified as those responses that attained average values below 3, which corresponded to a failure to meet expectations. The frequencies of responses were analyzed for those cases in which it was difficult to attain unsatisfactory measures of central tendency.

Step 3. Analysis of correlations between variables

Non-parametric tests were carried out in order to establish the relationships between sociodemographic variables. In the case of sex, the Mann-Whitney U was used to establish two categories. However, 4 ranges were established for age and it was, therefore, analyzed using the Kruskal-Wallis H. The perceived quality values of the cases studied were also compared.

The analyses are carried out by applying the following twelfth hypothesis:

H0: There is homogeneity between groups.

H1: There are differences between groups.

Critical region: Sig. Asymptotic ≤ 0.05
Rejection of null hypothesis.

Step 4. Reengineering and improvement of service processes

The authors Chica-Castro and Solís-Ferrer [31] proposed a general methodology based on the identification of processes, along with their strengths and weaknesses, through a diagnosis and redesign that allows the operation of the system to be optimized.

Using this idea as a basis, the proposal is to start from the flow cycle of the service process, establishing the critical activities according to what was stated by the customer, listing the possible solutions, and applying the engineering tools that would contribute to dealing with them. We also propose the use of timing as an important time study technique for the standardization and regulation of work, thus allowing the establishment of optimal personnel needs based on the number of visitors and peaks in demand for the service.

In order to carry out timing in the restaurant, the tables were established as the unit of observation, based on which service times (Th) and independent times (Te) were established, and in which the person offering the service does not intervene, such as consuming the food [29].

The service standard was established as:

$$Ns = (Th+Te)/Th$$

Ns: Service standard

Th: Serving time

Te: Independent time

The necessary observations were determined by establishing

Formula:

$$n = \left(\frac{ts}{kx}\right)^2 \tag{1}$$

where:

-t (probability of occurrence),

-s (standard deviation),

-k (margin of error),

-x (average or average of the cycle times in each of the stages of the process).

3 Results

Step 1 was developed by establishing the questionnaire for the evaluation of the quality of services in the context of Manabí restaurants.

Table 3 shows the analysis of the measure of central tendency (mean) for both cases, per question and per parameter.

Table 3.
Central tendency values by items and dimensions.

Questions/Case study	Attributes	CASE 1: Traditional Restaurant		CASE 2: Modern Restaurant	
		Half	Great average	Half	Great average
<i>The restaurant is visually attractive</i>	Tangibility	3.89		4.6	
<i>Employees have a neat appearance</i>	Tangibility	3.84	3.86	4.4	4.53
<i>The writing on the menu is attractive and understandable</i>	Tangibility	3.84		4.6	
<i>The service complies with the promised times</i>	Reliability	2.77		4.6	
<i>Interest in solving your problems</i>	Reliability	2.72		4.93	
<i>They perform the service well from the outset</i>	Reliability	3.31	3.14	4.6	4.62
<i>Error-free service</i>	Reliability	3.31		4.6	
<i>Food quality</i>	*Reliability	3.31		4.53	
<i>Value for money</i>	*Reliability	3.41		4.46	
<i>Information about service times</i>	Chap. Ans.	2.57	2.52	4.66	4.63
<i>Fast service offered</i>	*Chap. Ans.	2.46		4.6	
<i>You feel safe in transactions</i>	Security	3.26	3.26	4.6	4.6
<i>Safe and hygienic food is offered</i>	Security	3.84		4.73	
<i>The employees are friendly</i>	Empathy	3.31		4.53	
<i>They have knowledge required to answer your questions</i>	Empathy	2.67	2.9	4.73	4.71
<i>Employees give you personalized attention</i>	Empathy	2.52		4.8	
<i>Restaurant hours are convenient</i>	*Empathy	3.1		4.8	
Overall Average		3.14		4.73	

Source: Own elaboration

As can be seen, the average satisfaction in the first case (traditional restaurant) is 3.14, i.e. a level of satisfaction of 62.8%; lower than in the second case (modern restaurant), which has an average of 4.73, representing 94.6% satisfaction according to the scale used.

Case 1 shows dissatisfaction in responsiveness and empathy, although the remaining parameters and questions show median values of 3 for the most part, which corresponds to the average value of the scale. Tangibility stands out as the most highly rated parameter, which suggests that the market segment in this type of service is not so demanding with regard to tangible aspects.

Contrasting with this result is case 2, where all the dimensions show general satisfaction, with tangibility being the least valued, specifically the cleanliness of the employees. Likewise, value for money, friendliness of employees, speed of service, and that the service is done right the first time. It is worth mentioning that the prices of the products in this case are high in comparison with other similar businesses, so the client has a high expectation in relation to the aforementioned aspects, in that order.

Gender does not affect the overall mean of satisfaction; the asymptotic sigma higher than 0.05 in both cases, evidences that men and women have similar behaviors in their level of satisfaction (Table 4).

Similarly, the Kruskal-Wallis nonparametric H test was performed (Table 5) to analyze the differences between groups according to age. It is established that there are differences between the groups in case 2 (modern restaurant), but not in the first case.

The 19 to 34 and 34 to 50 age groups have average satisfaction values of 4.7 and 4.75, respectively, while clients in the 51 to 65 range have an average value of 4.46, which shows that the service has more favorable characteristics for younger clients. Changes are needed to improve the perceived quality in age groups over 50, especially considering that this is the most lucrative segment.

In the step of Reengineering and improvement of service processes, a partial result related to case 1 is presented, this being the one that showed the greatest weaknesses associated essentially with responsiveness and empathy. The process

Table 4. Analysis of group differences by sex.

	General average	General average
U de Mann-Whitney	22	47,5
W de Wilcoxon	50	113,5
Z	-0,704	-0,162
Asymptotic sig.(bilateral)	0,482	0,871
Exact significance [2*(one-sided sig.)].	0,536 ^b	0,882 ^b
	Case 2	Case 1

Source: Own elaboration

Table 5. Analysis of group differences in terms of age.

	General average	General average
Kruskal-Wallis H	7,778	1,468
gl	2	3
Asymptotic sig.	0,02	0,69
	Case 2	Case 1

Source: Own elaboration

Table 6. Average durations per activity in timekeeping at the table.

No.	Activity	Classification	Duration
1	Take order and take to kitchen	Th	5 min
2	Wait for service	Te	15 min
3	Brings order	Th	6 min
4	Consume service	Te	20 min
5	Brings bill	Th	7 min
6	Wait for change	Te	7 min
7	Brings change and collects service	Th	15 min

Source: Own elaboration

begins with the arrival of the customer, checking the menu, taking of the order, consumption, payment and removal from the table, removal of the customer.

The unit of observation was the table, for the timing, we started with 5 initial observations, which according to the average values showed the need for a total of 12. F 6 shows the summary of the approximate times of the activities of the table service cycle.

Serving time: 1: 5 min; 3: 6 min; 5: 7 min; 7: 15 min.

Independent time: 2: 15 min; 4: 20 min; 6: 7 min.

Average Th = (5+6+7+15)/4 = 8.25 min.

Te average = (15+20+7)/3 = 10.66 min.

Ns=(Th+Te)/Th = (8,25+10,66)/8,25 = 2,29

It is established that each employee can serve 2.29 tables, which can be rounded to 2 assuming that the employee will have limited time, but should strive to provide empathetic and time-efficient service. In this restaurant, the service standard was 4 tables per employee, double the recommended number. Based on this study, two employees were added at peak demand times, established between 12:00 and 14:00 pm, to speed up service. In addition, classes on good service practices were given, and the collection activity was automated through the acquisition of computer equipment, which improved response times, reducing waiting times from 22 to 15 minutes on average.

4 Discussion

The findings obtained herein generally coincide with those of Mu et al. [33], who stated that: “it is necessary that the organization adopt a culture of total quality, in such a way that from the leader to the lowest level employee provide their services with quality for the sake of customer service” (p. 13), given the deviations found regarding the need to offer a better service as regards friendliness, response times, the employees’ appearance and their interest in dealing with each customer’s particular needs.

The established questionnaire considers 17 questions and 5 parameters, in relation to the 5 parameters and 22 questions of the Servqual. Some were added, such as the menu is attractive and comprehensible, safe and hygienic food is offered, coinciding with the DINESERV model, the quality of the food, such as Stevens, et. al, [27], adding restaurant hours and the quality-price.

Therefore, the essential contribution of the proposal in the

integration and adaptation for the proposal of an instrument contextualized to the restaurant sector of Manabí is established.

The usefulness of the Servqual model has been established with regard to its validity for the evaluation of and improvement to the quality of Manabí restaurant service processes. In addition, there is also the usefulness of employing a differential scale, which reduces efforts related to the application of a single questionnaire. The authors Ramos-Farroñán, et.al, [28] applied the Servperf Model to a touristic restaurant, but dealt only with perceptions. In the case described herein, a single instrument is used to measure both perceptions and expectations. Likewise, the neatness of employees could be identified as a variable with some level of affectation, denoting the value that customers place on this tangible aspect in modern restaurants, and influenced precisely by the high expectations of knowledgeable clients with experience of international cuisine.

The findings also coincide with those of Fuentes-Gómez et al. [34], who identified shortcomings in temperatures (food quality), variables that also appear in both pieces of research, thus corroborating the importance of including this important tangible in the assessment of the perceived quality in restaurant services.

The authors Corrêa de Melo and Dumke de Medeiros [6], allude to the shortcomings of the service in a pizzeria owing to poor technologies and in which customers expressed dissatisfaction with the fulfillment of the promised times, along with the tangible aspects, which corroborates what was found in Case 1 (traditional restaurant). This was used as the basis on which to make improvements as regards times through the use of process reengineering by shortening cycle times and automation.

Process reengineering can be tailored to the conditions of each institution, and in the case of restaurants, the study of time, the establishment of process standards and service norms, and structural improvements to the process, can contribute to efficiency as regards the reduction of cycle times, and greater customer satisfaction. This aspect was addressed by Abarca-Sánchez & Ramos-Alfonso [35] through the use of timing for increased productivity and reduced cycle times in a condensed milk packaging company. The study and measurement of work continues to be a useful tool for the standardization of and improvement to both manufacturing and service processes [36].

In summary, the methodological and practical usefulness of the procedure developed for the systematic evaluation of the perceived quality in Manabí cuisine is highlighted by the use of a validated scale that is easy to understand for users, composed of 17 questions to be answered by means of a differential scale that establishes from much less than expected, to more than expected. making it simple to compare expectations and perceptions with a single app. Added to this is the integration with the study of times for the establishment of standards of care that favor both good customer service and the well-being of workers, by managing with appropriate work standards at a normal work pace, an element also addressed by [29], as an essential aspect of the improvement of the catering service.

5 Conclusions

This paper shows a proposal for a procedure for the evaluation of and improvement to quality in two restaurants in Manabí, which offer modern versus traditional cuisine. This procedure establishes the use of the Servqual Model for the evaluation of the quality of the restaurant services in the cases studied, and time study tools, such as timing, in order to improve the performance of the processes and customer satisfaction by shortening attention times. It could be replicated in similar institutions, under the principles of flexibility and relevance.

The Servqual Model has again been validated, this time in the context of restaurants in Manabí, using expert judgement and the internal consistency of the scale used, which in this case corresponds to a differential that allows the contrast of expectations and perceptions through the application of a single instrument. 16 questions were established, to which others were added such as: the attractiveness of the menu, the quality of the food, value for money and the convenience of the schedules.

The evaluation of the questionnaire in two restaurants that are representative of traditional Manabí cuisine (Case 1) versus modern cuisine (Case 2), showed that there were lower satisfaction values for the former, essentially as regards the capacity for response and empathy, denoted as empiricism in activity. In the second case, meanwhile, although to a lesser extent, an impact on tangibility was established. This made it possible to infer the demanding expectations that the visiting market segment has. In this case, it was possible to confirm the need to develop strategies that would be more appropriate for people over 50 years of age.

The evaluation of the quality of the service showed the guiding elements of improvement, which allowed the reengineering of the service process in Case 1, from the establishment of a work organization standards service (2 tables per employee during peak demand hours), which allowed a reduction in cycle times. This is an example of the usefulness of integrating work study and measurement tools in the context of evaluating and improving the quality of services.

In future research it will be necessary to expand on the integration of the Servqual model (with regard to all its differences) with other process improvement tools, such as simulation, six sigmas, plant designs, and the quality deployment diagram in order to develop the best solutions by which to improve quality tailored to services of a different nature.

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