



Universidad Popular Autónoma del Estado de Puebla

Vicerrectoría de Posgrados

e Investigación

Escuela de Ingeniería

Maestría en Sistemas Integrados de Manufactura y Estrategias de Calidad

TITULO DE LA TESIS.

ANALYSIS AND PROPOSAL FOR IMPROVEMENT IN THE SERVICE QUALITY.
CASE OF STUDY PALUA CAFE Y ARTESANIAS.

Tesis que para obtener el Grado de

Maestro

en Sistemas Integrados de Manufactura y Estrategias de Calidad

Presenta

DAVID FLORES BAUTISTA

Director

Hertwin Minor Popocatl

Puebla, México.

Mayo, 2018



UPAEP – Secretaría General

Dirección General de Apoyos Académicos

Dirección del Centro de Recursos para el Aprendizaje y la Investigación.

Biblioteca Central - **Karol Wojtyla**

Tesis Digitales Restricciones de uso:

DERECHOS RESERVADOS ©

PROHIBIDA SU REPRODUCCIÓN TOTAL O PARCIAL

Todo el material contenido en esta tesis está protegido por la Ley Federal del Derecho de Autor (LFDA) de los Estados Unidos Mexicanos (México).

El uso de textos, imágenes, gráficas, fragmentos de videos, y demás material que sea objeto de protección de los derechos de autor, será exclusivamente para fines educativos e informativos y deberá citar la fuente de donde la obtuvo mencionando el autor o autores involucrados en el documento.

Cualquier uso distinto como el lucro, reproducción, edición o modificación, será perseguido y sancionado por el respectivo titular de los Derechos de Autor.



Universidad Popular Autónoma del Estado de Puebla

Vicerrectoría de Posgrados

e Investigación

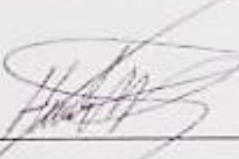
Escuela de Ingeniería

Maestría en Sistemas Integrados de Manufactura y Estrategias de Calidad

Se aprueba la Tesis:

ANALYSIS AND PROPOSAL FOR IMPROVEMENT IN THE SERVICE QUALITY.
CASE OF STUDY PALUA CAFE Y ARTESANIAS.

Comité de Revisión.



Dr. Hertwin Minor Popocatl

Director



Dr. Prudencio Fidel Pacheco Garcia



Dr. Luis Cuautle Gutierrez

Asesor

Asesor

Puebla, México.

Mayo, 2018

ABSTRACT

Quality service is a complicated aspect to evaluate mainly because it's a really abstract point that can be affected by lot of things as tangible elements like the food and the physical facilities, and intangibles as the customer support, in this thesis work it will be analyzed the service quality in the company "Palua café y Artesanías" using the SERVQUAL model which consist in applying a survey of expectations and another one of perspectives to the customers, then analyze the obtained data in the statistics software SPSS and Microsoft Excel. The results of the analysis were used to check the main opportunity areas so will be possible to propose actions in order to improve the quality of the service in the company focusing on the customer.

Keywords: Quality service, Servqual model, customer's satisfaction, improvement. Optimization.

CONTENT

ABSTRACT	3
INTRODUCTION	10
1. PURPOSE AND ORGANIZATION	11
1.1 Problem Statement.....	11
1.2 General objective	11
1.3 Specific objectives	11
1.4 Case of study: “Palua Café y Artesanías”	12
1.4.3 Characteristics of the company.....	13
1.5 Theoretical framework.....	16
1.5.1 Quality	16
1.5.2 Quality in services as a satisfaction of wishes of the customers	17
a) Desire to be welcomed.....	17
b) Desire to be understood.....	18
c) Desire for comfort.....	18
d) Desire to feel exclusive.....	18
e) Desire to be surprised.....	18
1.5.3 Quality in services as care of details and overcoming expectations	18
a) Tripping with the lamp	19
b) The Surprise Factor.....	19
1.5.4 Quality moments	19
a) Magic moments	20
b) Moments of misery	21
1.5.5 Service quality.....	21
1.5.6 Restaurant industry	22
1.5.7 Customer’s satisfaction.....	22
1.5.8 Price Perception.....	22
1.5.9 Customer Loyalty	23
1.5.10 Models for measuring quality service.....	23
a) IPA model.....	24
b) Kano model	25
c) SERVQUAL model.....	26
1.5.11 Process	29
1.5.12 Flow	30
1.5.13 Value stream.....	30

1.5.14 Process mapping.....	30
1.5.15 Importance of mapping a process	31
1.5.16 Secret client technique	31
1.5.17 Distintivo “H”	32
1.5.18 PDCA	33
2. METHODOLOGY AND RESULTS.....	34
2.1 Methodology	34
2.2 Results.....	38
Goals	63
Mission	63
Vision.....	64
Values	64
CONCLUSION	64
REFERENCES.....	66
Appendix 1. Surveys.....	68
Appendix 2. Training registration matrix	69
Appendix 3. PDCA planning worksheet	70
Appendix 4. Flow process and administrative analysis	71
Appendix 5. The normal distribution table.....	72

TABLES CONTENT

Table 1	Explanation of the Facebook Statistics
Table 2	Significance and explanation of the AHP evaluation scale.
Table 3	Pairwise comparison matrix.
Table 4	Number of clients each week from 10-February-2017 to 10-April-2017.
Table 5	Normal distribution table.
Table 6	Likert Scale.
Table 7	Demographic questions.
Table 8	Attributes and items of the SERVQUAL model.
Table 9	GAP between expectative and perceptions
Table 10	Main issues and proposed improvement ideas
Table 11	Comparison table between proposed management software.

GRAPHICS CONTENT

Graphic 1	Facebook Statistics from 10/04/2017 – 07/05/2017, (Data provided from the company)
Graphic 2	Google; Where the customer's find the company in Google.
Graphic 3	Google; Views of the photos.
Graphic 4	Google; Number of posted photos.
Graphic 5	Age range.
Graphic 6	Origin.
Graphic 7	Gender
Graphic 8	Occupation
Graphic 9	Question: Is your first time visiting “Palua Café y Artesanías”?
Graphic 10	Question: Number of visits in the last month.
Graphic 11	Perceptions question: Visually attractive parking areas and building exteriors.
Graphic 12	Perceptions question: Visually attractive dining area.
Graphic 13	Perceptions question: Clean, neat and appropriately dressed staff.
Graphic 14	Perceptions question: Décor typical of its image and price range
Graphic 15	Perceptions question: Easily readable menu.
Graphic 16	Perceptions item: Visually attractive menu.
Graphic 17	Perceptions item: Comfortable seats in the dining room.
Graphic 18	Perceptions item: Clean rest rooms.
Graphic 19	Perceptions item: Clean dining areas.
Graphic 20	Perceptions item: Comfortable seats in the dining room.
Graphic 21	Perceptions item: Service in the promised time.
Graphic 22	Perceptions item: Quick correction of wrong service.
Graphic 23	Perceptions item: Dependable and consistent restaurant.

- Graphic 24 Perceptions item: Accurate bill.
- Graphic 25 Perceptions item: Error-free served order (food).
- Graphic 26 Perceptions item: Maintaining speed and quality of service during busy times.
- Graphic 27 Perceptions item: Provision of prompt service.
- Graphic 28 Perceptions item: Extra effort for handling special requests.
- Graphic 29 Perceptions item: Employees can answer questions completely.
- Graphic 30 Perceptions item: Comfortable and confident feeling.
- Graphic 31 Perceptions item: Staff provides information about menu items, their ingredients, and method of preparation.
- Graphic 32 Perceptions item: Feeling personally confident about the hygienic preparation of food.
- Graphic 33 Perceptions item: The staff seems well trained, competent and experienced.
- Graphic 34 Perceptions item: The company supports the employees.
- Graphic 35 Perceptions item: The staff is sensitive to your needs and desires, rather than following standard policies and procedures.
- Graphic 36 Perceptions item: The staff makes you feel special as a customer giving you personalized attention.
- Graphic 37 Perceptions item: Anticipation of customer's individual needs and desires.
- Graphic 38 Perceptions item: Sympathetic and reassuring employees.
- Graphic 39 Perceptions item: Always seems to take into account the interests of customers.
- Graphic 40 Perceptions item: Expensive food items.
- Graphic 41 Perceptions item: Paying more than planned.
- Graphic 42 Perceptions item: Overall satisfaction with dining experience.
- Graphic 43 Perceptions item: It is that café where, undoubtedly, the customer would return in the future.
- Graphic 44 Perceptions item: The customer would recommend the restaurant to others.
- Graphic 45 Perceptions item: Excellent quality of service.

FIGURES CONTENT

Fig 1 Location of Palua Café y Artesanías.

Fig 2 Logo of the company “Palua Café y Artesanías”

Fig 3 Matrix IPA model (Fan-Yun Pai, 2016)

Fig 4 Methodology for mapping consumer responses in the Kano model, por (Fan-Yun Pai, 2016)

Fig 5 Explanation of the GAPS in the SERVQUAL model. [19]

Fig 6 Input, process, out-put.

Fig 7 Input and output of a work activity.

Fig 8 Internal organization system.

INTRODUCTION

Service quality is one of the most important criteria in business, according to the customer perception of the service quality it is possible to earn loyalty or to lost the client. There are studies that show how quality service can affect the business performance, and according to Plymire, 91% of the customers that had a bad service quality are not coming back to the company, but also they will tell to 8-10 individuals about the bad experience with the company, so it will be a negative repercussion on the company's reputation. (Gwo-Hshiung Tzeng, 2011)

Service quality is based on the customer's expectations. This means that the customers have their own experience with the restaurant which involve a lot of things such as the food quality, quality of physical facilities, customer support, quickness of the service and prices, all this before starting the experience in the restaurant, so the previous ideas. And on the other hand the perception refers to the experience that the customer lived in the restaurant. This is what some models as SERVQUAL IPA and KANO measure, the difference between the expectative vs the real perception of customers. One important point is that customer perception can vary a lot even between customers because of the individual preferences and implicit comparison with other restaurants. (Guzmán & Cárcamo, 2014)

The tastes of the people have been evolved, becoming everyday more demanding, causing restaurants to improve so those will be able to detect and satisfy the needs of their customers. The complicated with service quality is all the aspects that are involved in it, because it's not just about the food and drink sin 1988 were determined ten service quality dimensions by Parasuraman, and then were reduced in 1985 to five dimensions: tangibles, reliability, responsiveness, assurance, and empathy, by this was developed the SERVQUAL model which consists in 29 service quality items. The food and drinks goes only in the dimension of tangibles, so the quality service is more complicated because the other aspects can depend on cultural and the past customers experience in other restaurants (Guzmán López & Cárcamo Solís, 2014). As this model there are some others as IPA and KANO, but it is complicated to know which one is the best option for making service quality studies in the companies, so a theory analysis is developed in order to understand some of the most useful quality service models and determine in which case is it better to use each model.

1. PURPOSE AND ORGANIZATION

1.1 Problem Statement

Nowadays the companies face new changes with more demanding customers, who expect better and new experiences with good quality service, this is why companies must keep improving and changing continuously the way they work, their strategies and the service so the loyalty of the clients will remain and new customers will be attracted (Archakova, 2013). This is the same case for the company “Palua café y artesanías” which in a growth strategy and with a continuous improvement mentality is trying to analyze and improve the quality service, so they also will be able to increase the number of customers. Currently (data from February to April 2017) the average of customers per week is 136, searching in data from previous years there is no big change in the average of customers. According to the managers, they have not been able to find out which are the main points to improve quality service in the company, they have tried to improve some aspects and to implement some surveys asking about the food, the environment, service and one space for suggestions. Focusing in the suggestions taken from these surveys they have improved some points and quality service aspects but haven’t been enough because there are still some claims from customers and they also want to know which exactly the most important improvement areas are.

1.2 General objective

Analyze the quality service in the company “Palua Cafe y Artesanías” through the Servqual model.

1.3 Specific objectives

- Establish the literature for the research work.
- Apply the SERVQUAL model to the company “Palua Cafe y Artesanías” through surveys to customers.
- Use statistics software (IBM SPSS) to analyze the obtained data through factor analysis, standard deviation calculation, arithmetic mean between expectations and perceptions of the clients.
- Obtain the main opportunity areas in the company “Palua Café y Artesanias” through the Pareto diagram.

1.4 Achievement

- This document just pretends to make a proposal to improve the opportunity areas in the company “Palua Café y Artesanias”.
- The total population size for the sample in the questionnaires to apply consists in a random period of two months (10 February 2017 - 10 April 2017), for this, the company “Palua café y artesanías” gave the information of the number of clients for each day, so the final population size was 1221.

1.4 Case of study: “Palua Café y Artesanías”

The company “Palua Café y Artesanías” was established the 8th of August of 2014, this company is located in Huamantla, Tlaxcala in Mexico (see Fig 1.1). The company started operations with 4 persons and now it works with 7 persons from which 2 are the owners and are specialized on management and operations, 5 persons are specialized on operations; operations can be waiter/waitress or cooker. The concept of the company is a familiar Café where people can find sandwiches, crepes, bagels, desserts, cold and hot teas, chocolate, mocha, cappuccinos, frappes, smoothies from a menu with more than 30 different choices. The place is decorated with handicrafts which are mainly from the region, these handicrafts can also be sold to the customers’ so these are accomplishing both to decorate the place and to be an item for sale, as it can be in the logo of the company, it reflects the concept of the café and the handicraft business (see Fig 1.2).

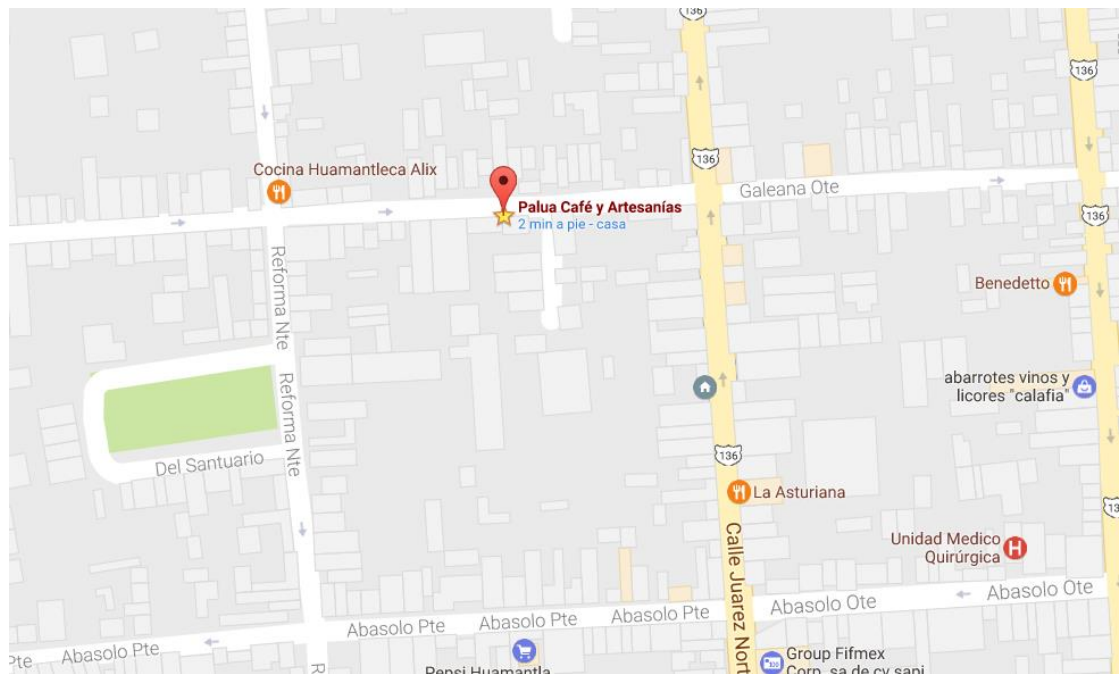


Fig 1. Location of Palua Café y Artesanías.



Fig 2. Logo of the company “Palua Café y Artesanías”

1.4.3 Characteristics of the company

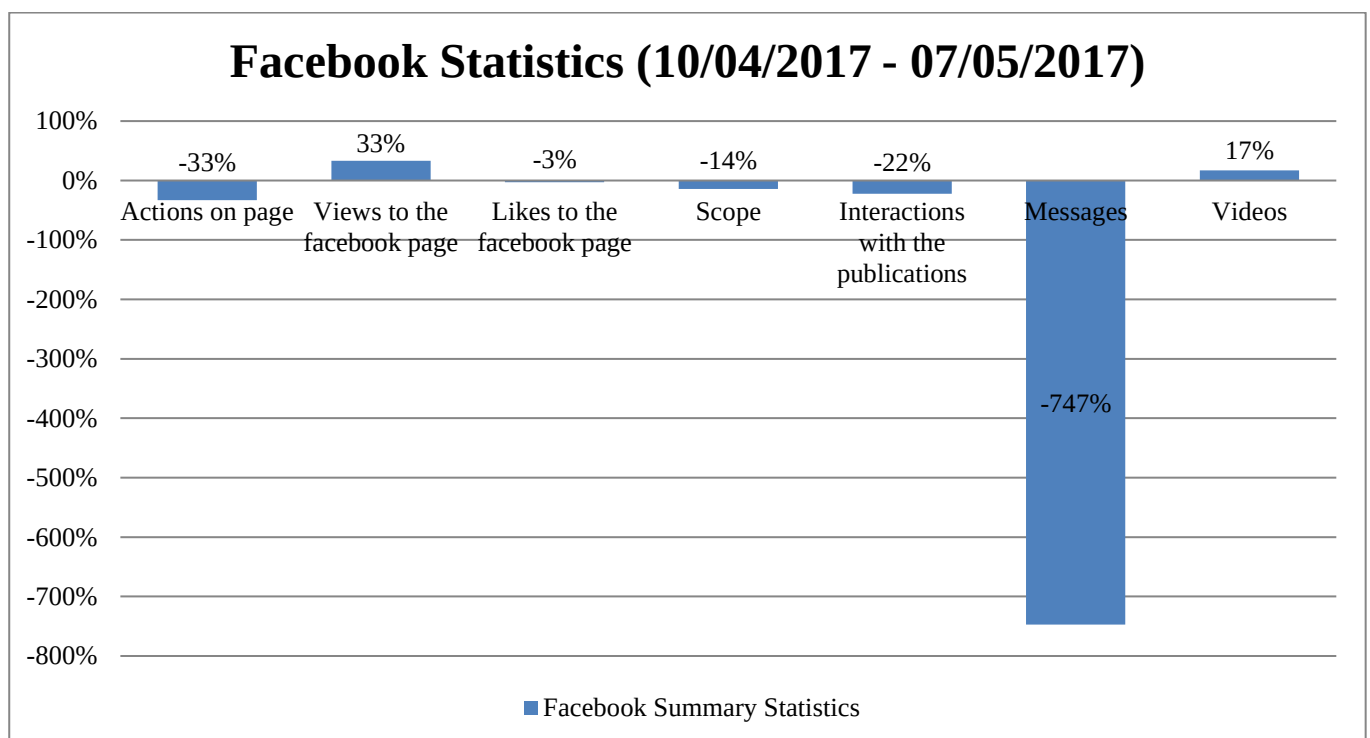
The company takes control of the sales by using a software for shops called “Abarrotes”, which is not enough for taking control of the company because it is more focused to the shop stores, in this software it is able to see the total sales for day, week, month, and also to see which is the most sold product, it can also help for the control of suppliers. This software does not have a special system for restaurant inventory, so it is not able to manage correctly the in/out items (like food, raw material, drinks, etc.) from the business, the owners can take food without paying and there is no way to detect that, that means that any employee can do the same, so there is a big improvement area there because these means that the company can be losing a lot of money but they don’t even know about it.

The company makes special events for San Valentine’s Day, mothers’ day, fathers’ day and special occasions like birthdays, wedding proposals, etc. this events can vary from just a cake for free to the celebrated client, to special live music for all clients. There is a regular client card, which can be exchanged for some discounts or free coffees/deserts after specific number of visits to “Palua café y artesanías”.

The company uses some internet facilities as Facebook, Tripadvisor, Youtube and Google, as marketing and for the company diffusion. The problem with all these sites is that there is not a good management for them. There is also not enough content in these sites to attract new customers, the rate time of the answer to the messages between customers and the company is slow as the Graphic 1 shows (in the Table 1 there is the explanation of the items in the Graphic 1). There is a good chance to get customers in this kind of sites as the Graphic 2 shows, where approximately 1003 persons found “Palua Café y Artesanías” by searching in Google search or Google maps. Although there are some good results from this

sites, it could be a lot better, because comparing with similar companies there is not a good management and the company is not creating enough attractive content as the Graphic 3 and Graphic 4 shows, the views to the photos compared with similar companies is too low, also the number of posted photos is too low compared with similar companies. In this sites there are some comments from some customers, there are good but also bad ratings and the company has not answered any of this comments so it is easy to see that there is not enough tracing to improve this rates which for sure can improve quality service.

The company has tried some surveys to the customers, making questions according to the manager's experience. This seems a good idea but they didn't give a good trace to the results of the surveys, they took some ideas randomly and improve some aspects that customers claimed, but after a short time they stopped the surveys because they were not able to review and trace all of the surveys.

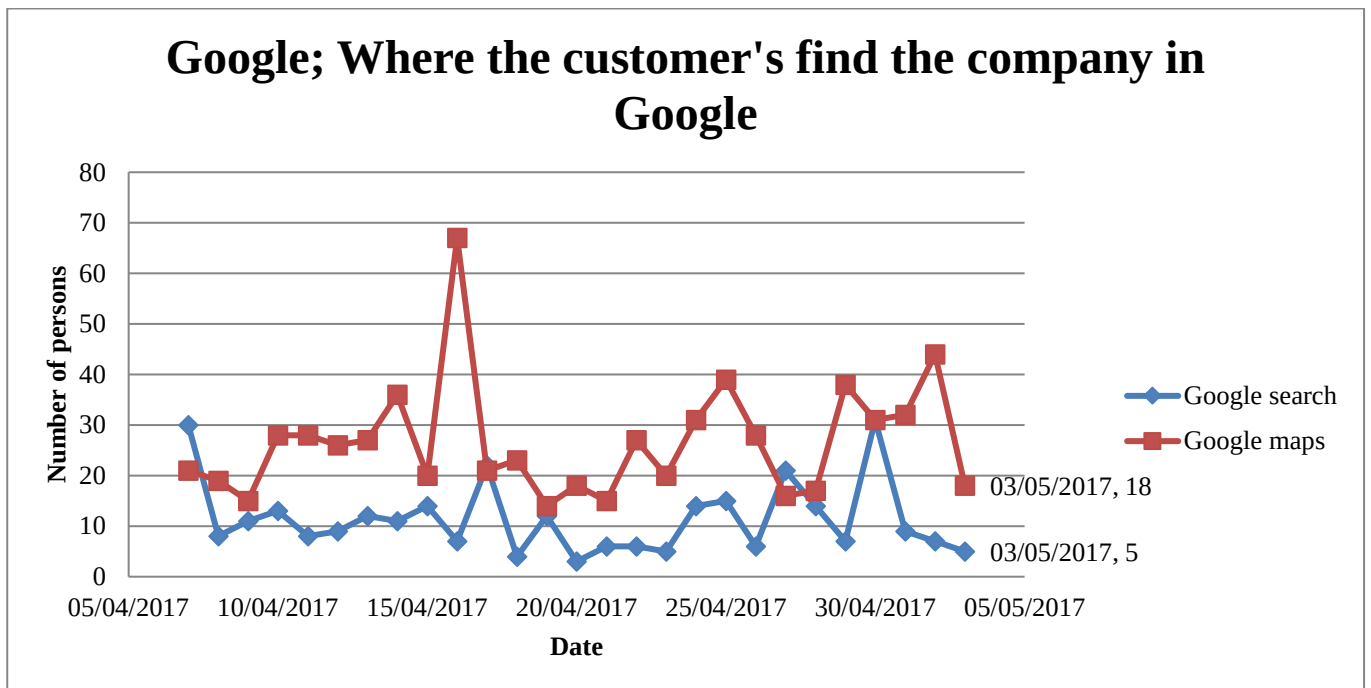


Graphic 1. Facebook Statistics from 10/04/2017 – 07/05/2017, (Data provided from the company)

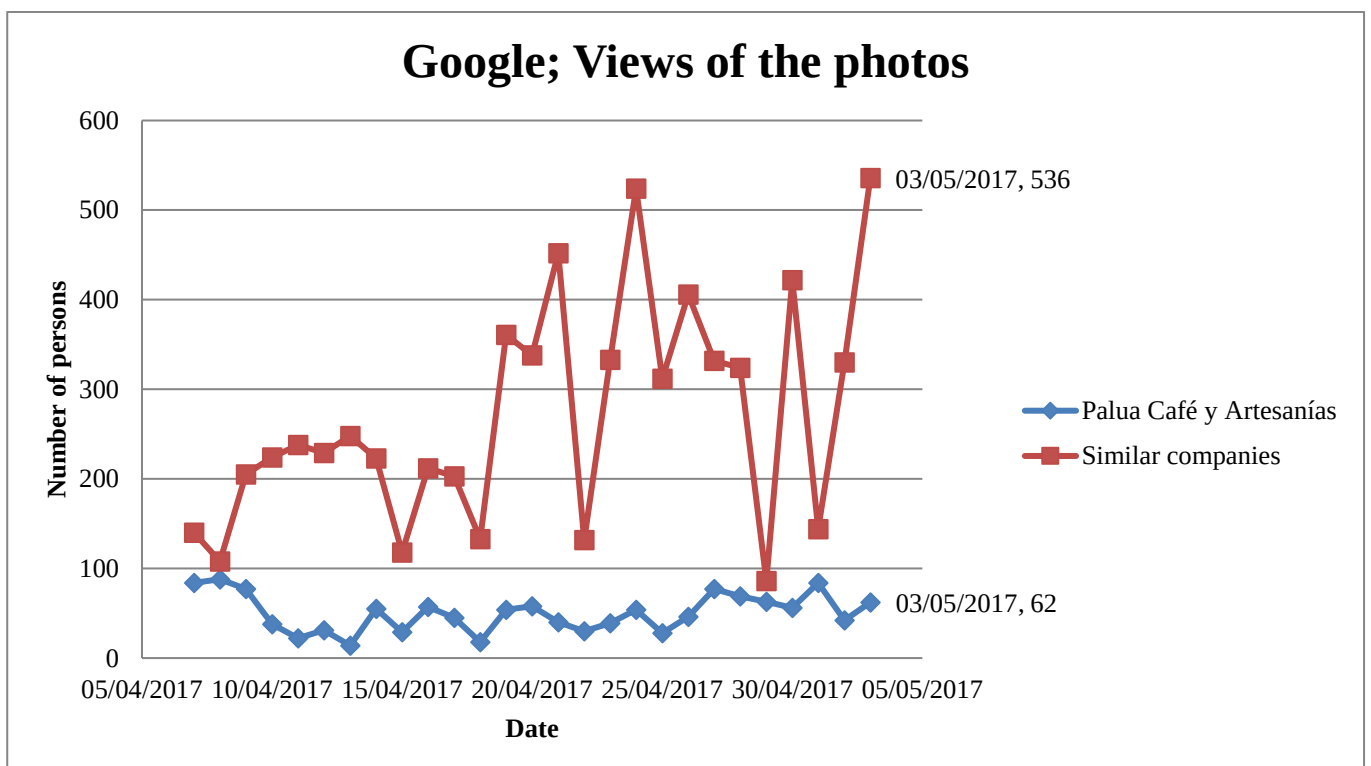
Table 1. Explanation of the Facebook Statistics

Statistics of...	Description
Actions on Facebook page	Number of clicks on your page's contact information and call-to-action button
Views to the Facebook page	Number of times people have viewed your page and its sections
Likes to the Facebook page	Number of times people indicated that they like your page
Scope	Number of people you have reached your post: more I like, comments, times that have been shared and more
Interactions with the publications	Number of times people have interacted with your posts indicating they like, comment or share content, among others.

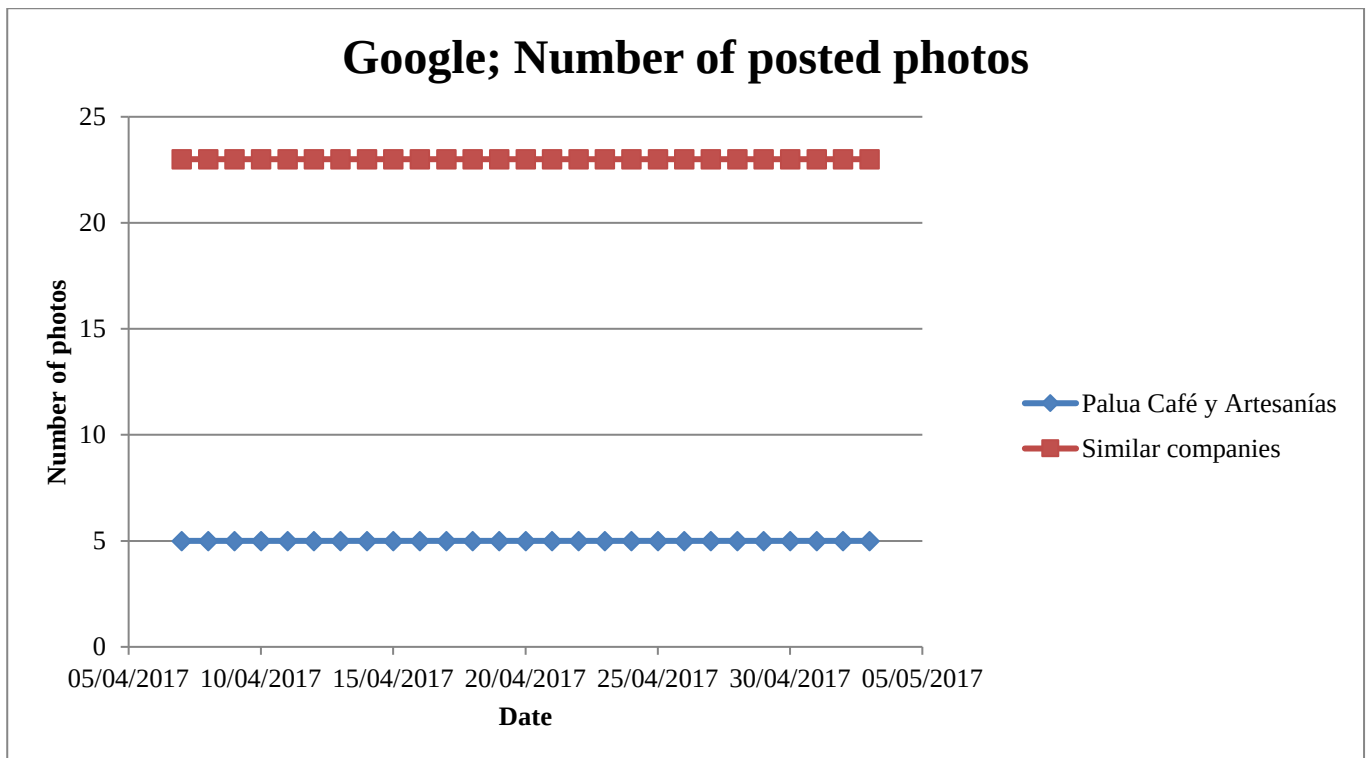
Messages	Percentage of average response time to the messages.
Videos	The number of times your videos have been played for at least three seconds



Graphic 2. Google; Where the customer's find the company in Google



Graphic 3. Google; Views of the photos



Graphic 4. Google; Number of posted photos

1.5 Theoretical framework

1.5.1 Quality

Throughout the history can be found different manifestations of the concern and eagerness of the human being for the quality. For this reason, to understand the correct meaning of the term "quality" it is convenient to review the historical evolution of its concept. The earliest traces of human striving for quality are given in ancient Babylon. Written in the Code of Hammurabi (1752 BC) that "if a mason builds a house for a man, and his work is not strong and the house collapses killing the owner, the mason will be put to death." The Phoenicians had a customary practice which was to cut off the hands of those who repeatedly made defective products. Both examples show the importance of good work from the most primitive civilizations. In ancient Egypt there already existed the figure of a "quality inspector", whose job was to check that the blocks of stone had the dimensions suitable for the construction of his great works. (Aragón, 2014)

In medieval times, both the sale and the manufacture were carried out in workshops by a craftsman who was in charge of directly catching the complaints of the customers; this information was useful to him to improve his process and not to return to make mistakes. With the expansion of trade, there is a new step in quality management, appreciating quality guarantees in sales contracts. With the industrial revolution of the late eighteenth century, the machine was introduced to the workshops, where an internal restructuring of the factories was generated. Despite this revolution in contact between the manufacturer and the

consumer remained, making the worker responsible for the quality during the production process. Large companies begin to emerge with mass-production, and are supported by the principles of the Taylor Scientific Work Organization. Generating people dedicated to manufacture, execute, and control the quality of production. In this way, the quality inspector emerges, and later on, the departments of quality to which the responsibility for the quality of the product is transferred. At the Bell Telephone Labs of the United States, a series of works were carried out in the 1920s in which new inspection methods were developed to improve quality. The research team led by Walter A. Shewhart proposed to apply statistical techniques to quality control, giving rise to statistical quality control, which goes beyond a simple quality inspection, trying to identify and eliminate the causes that Generate defects. Currently, recent developments in knowledge management are demonstrating their clear interrelation with quality management in the company. Thus, the achievement of quality is not possible without applying the philosophy of continuous improvement and so that the organization can improve continuously, before having to learn and know. (Aragón, 2014)

According to the ISO 9000:2015 “a quality-oriented organization promotes a culture that results in behaviors, attitudes, activities and processes to provide value in meeting the needs and expectations of clients and other stakeholders. The quality of the products and services of an organization is determined by the ability to satisfy customers, and by the expected and unintended impact on the stakeholders. The quality of the products and services does not only include their function and expected performance, but also their perceived value and benefit to the customer.” (ISO 9000:2015). This means that quality is one of the most important aspects for all companies and the correct orientation for this factor will result in a good development for the company, this quality aspects are according to the customer needs and expectations.

1.5.2 Quality in services as a satisfaction of wishes of the customers

As Martinez (2006) defined, the quality of services is the satisfaction of the wishes of the clients, as a result of receiving a service done with true enthusiasm and taste. Martinez established that the desires - also called "basic needs" - are less obvious than needs, and suggest the deeper goals of a client. Organizations must recognize them because they are what customers look for when they come to it, call or get in touch through their website. These wishes according to Martinez (2006) are:

a) Desire to be welcomed

Clients want to receive them with a smile, invite them to come back and let them know that they will always be welcome. A sincere appreciation and appreciation should be shown to all clients at the end of each transaction or when they move away from the service area.

This does not happen in many organizations, where they are not given due attention when they arrive or where there is an "interest" that lasts until the moment they request and settle their accounts.

b) Desire to be understood

Clients want to be asked what they can serve, listen to, understand their needs and help them get what they want or solve their problems.

Many times, customers come to the organization with the intention of making a purchase, but without the decision of which product or service to acquire, so that the staff that comes into contact with them should approach them, ask them, give them options, make suggestions and Help them make their decision.

c) Desire for comfort

Customers want them not to harass or pressure them, making them feel comfortable both psychologically and physically. In an attempt to help customers make their purchasing decisions, they should be given the message that they are available to them; However, they should be given time to observe, analyze and decide without the inconvenience of the service collaborator, because there is a risk of sending a message different from what is desired.

d) Desire to feel exclusive

Customers want them to value them and make them feel important, not to judge their ability to buy. Regrettably, there is the predisposition to attend with more enthusiasm to foreign clients or that appear to have a higher socioeconomic level. In a remarkable number of organizations there are many episodes of discrimination by race, socioeconomic level, age and gender.

It is advisable to avoid the denomination of VIP client, since for any professionally directed organization the money of a client "with full portfolio" should be equally valuable than that of a client with limited resources.

Fortunately, there are owners and collaborators who like to give a personalized treatment to those who have the appearance of being more humble than the rest of their regular customers, in an effort to thank them for the financial effort made to buy in your organization.

e) Desire to be surprised

Customers want what they receive exceeds their expectations. However, many organizations are not willing to give anything that customers do not expressly request or do not pay, forgetting that details in care are the ones that can achieve their satisfaction and retention.

1.5.3 Quality in services as care of details and overcoming expectations

The Disney Institute (2005) said that regarding the desire to be surprised, a quality service refers to exceeding the expectations of the guest (client) and paying attention to details. This definition, which seems

too simple, imposes the challenge of living the two requirements that it says: the surprise factor and "tripping with the lamp".

a) Tripping with the lamp

According to Disney Institute (2005) the concept of "stumbling on the lamp" was born during the filming of the Walt Disney Pictures film *Who Framed Roger Rabbit* ?, which was - at the time - an innovative mix of live action and cartoons. In the scene, the protagonist, Bob Hoskins, stumbles with a lamp that hangs from the ceiling. The lamp begins to move from side to side as well as its shadow. During the film's creation, the lamp and its shadow appeared on the live action stage the same way it would be in the natural world, but what happened when the animated star Roger Rabbit was added to the scene ? Exactly, no shadow crosses his face. Most viewers would not have noticed the difference, and certainly the scene could have been recorded without Hoskins stumbling on the lamp, but the filmmakers made sure that the shadow on Roger Rabbit accurately reflected the moving shadow projected by The lamp of live action in each of the 24 frames per second of the scene. They paid attention to details and took the extra step in their commitment to a quality customer experience.

b) The Surprise Factor

There is one thing that clients bring to the organization: expectations, and sometimes, very high. Surprising them means not only covering their preconceived notions, but also exceeding them. Exceeding expectations is the standard call of duty and must occur every day on every possible occasion.

Achieving it not only means paying great attention to each aspect of the customer experience, it also has to do with analyzing that experience from its perspective, understanding its needs and desires and compromising all elements of the business - from the design of each Element of the infrastructure, to the interaction between the client and the collaborator -, until creating an exceptional experience for each one of them.

Exceeding customer expectations and paying attention to detail are tasks that are interwoven intricate. By taking care of the details, Disney constantly exceeds the expectations of its customers. When the experience is magical; Ie, consistent, fluid and quality, they return; And the next time with higher expectations that, in turn, encourage Disney to pay even more attention to details. (Disney Institute, 2005)

1.5.4 Quality moments

Jan Carlzon was born in Sweden in 1941 and graduated from the Stockholm School of Economics with a master's degree in management; he is recognized as one of the most important quality specialists in the service area. At the age of 32, he became director general of Sweden's largest tourism operator, at a time when tourism was affected by the first global energy crisis. Carlzon redesigned his company's trading strategy and quickly reversed its declining economy, making it win markets for its competitors. He was

CEO of Linge-flyg, Sweden's largest domestic airline and chairman of SAS, and the consortium of national airlines in Denmark, Norway and Sweden. In both companies, Carlzon took over the leadership and, in less than a year, turned its losses into high profits, making him one of the most successful managers in the tourism industry and aeronautics. (Aragón, 2014)

Carlzon established the concept "moments of truth", from which a quality management program was developed for service companies. The quality strategy of Carlzon indicates all the steps that the consumer continues to receive the service, from the point of view of the customer. This so-called "service cycle" identifies the moments of truth that can be presented, who will be at that moment expensive and what decisions to take for the administration. Carlzon's quality strategies are to support and make the person who is in contact with the customer the most important and powerful in the organization, so that he can give him the authority to achieve consumer satisfaction. (Aragón, 2014)

In organizations there are multiple opportunities to satisfy the customers, Carlzon (1991) calls these opportunities moments of truth. These are explained as moments in which contacts are made between the client or user and the service provider. These moments can be converted by the organization into moments of magic and moments of misery. There is quality in the service when you make customers experience moments of magic. In moments of truth, any contact with the customer is important. Many times will be the occasion to satisfy and retain the customers; having an omission or making a mistake could cause to lose them forever.

a) Magic moments

A moment of magic is the result of the organization-client interaction in which a satisfactory experience is generated for the latter, through the product purchased and the service received. "Magic" is not a word that is widely used in the business world, nor is it on the balance sheet; However, is a common word in companies like The Walt Disney Company. At Walt Disney World and all organizations that create magical customer experiences, the happy surprise of a well-cared customer is a result of the hard work of the team. For the client, magic is a source of wonders and pleasure; for the company and its collaborators, magic is a rather practical matter, a series of repeated steps that are designed to create a fixed result that satisfies the customer in their desires - or basic needs - and their expectations. It is important to consider that magic has no ephemeral nature, for as long as the work of the creative collaborator of satisfactory experience perishes, the value of that experience remains in the memory of the client.

In a moment of magic only positive emotions (taste, joy, rejoicing, surprise, pride, etc.) are generated in the customers, which makes their shopping experience so satisfying that it is stored in their mind, and is a factor Determinant in their subsequent purchasing decisions. (Disney Institute, 2005)

b) Moments of misery

A moment of misery is the result of the organization-client interaction in which an unsatisfactory experience is generated for the latter, through the poor product purchased and / or the inadequate service received.

This, in the face of the large competition with which most organizations face today, means not only the non-retention of the unsatisfied customer, but the loss of multiple current and potential clients to whom a negative message is communicated Around our service without quality.

Likewise, these memories of negative interactions also persist in the employees' own memory, making it easy for them to develop an attitude that projects customers: "I would rather be anywhere else and not here, but I need the money". (Carlzon, 1991)

1.5.5 Service quality

Service quality is one of the most important factors for the development of companies, it can provide businesses with a strong competitive advantage by differentiating it from competitors, service quality is also one critical factor for the customers' satisfaction. Measuring service quality is really complicated, mainly because it is an intangible product and the perception of this element can be evaluated in a different way from each person (Guzmán & Cárcamo, 2014). According to Erto and Vanacore (2002), the customer acts as both consumer of a service and an evaluator of the received service, because the customer is intervening in the service process.

If the customers' percept a high service quality then a high percentage of them will return to the company and this will help to earn loyalty from them, so is in the other case, according to Plymire, 91% of the customers that had a bad service quality are not coming back to the company, but also they will tell to 8-10 individuals about the bad experience with the company, so it will be a negative repercussion on the company's reputation (Tzeng, 2011). According to Makeeva (2010), the quality relies on several factors and the customer perception is a critical one. Gerson said that the perception of customer defines the quality of a product or service, and even it cannot be controlled every detail and process in companies, the managers must ensure to do always the best for a good customer outcome.

According to Park Robertson (2004) service quality is related with the efficiency of the service and the overall impression of the company from the customers' experience. In Grönroos and Parasuraman et al. view the gap between the customers' expectations of service versus the real perceptions is the customer's satisfaction. If the actual experience of the customer in the company exceed the expectations, then it is clear that service has a high quality. When speaking about customers' expectations there are lot of things that can affect it like the own needs, previous experiences and public reputation of the clients. (Makeeva, 2010) & (Fan-Yun Pai, 2016)

1.5.6 Restaurant industry

There are not so much studies about restaurants issues, according to Kim and Moon (2009) the psychological process by which the customer perceives service quality is; pleasure-feeling situational factor and revisit intention. They highlighted that restaurant managers should investigate and comprehend their customers' perception process associated to emotions and cognition. Luoh and Tsaur (2007) proposed to investigate the relation between various service quality conditions and gender stereotypes, and the quality service perception in fine dining restaurants. Tzenf et al. (2002) applied a multi criteria decision-making method to choose the best alternative restaurant locations in Taipei. They created a location evaluation hierarchy with 5 features and 11 scale for a restaurant. (Tsai, 2013)

According to Kotler et al. (2004), restaurants are considered to be in the middle of the product-service paradigm, that is, they are half as pure product (a service that does not involve some form of service or additional service) and a service, therefore, the delivery of the good to the client is composed of tangible elements such as food and beverages, as well as intangible elements such as attention and service. This duality can be considered particularly interesting due to the multidimensional complexity of the concept. Keiser considered that the culinary experience that a restaurant offers integrates both tangible and intangible elements. While tangible elements (food and beverages) can be improved more easily, the intangible part of a restaurant (service) requires more attention. (Guzmán & Cárcamo, 2014)

1.5.7 Customer's satisfaction

Customers' satisfaction, this is one essential factor for companies and means to satisfy the desires and needs of the customers'. There are some definitions of customers' satisfaction but according to Oliver (1980) customers' satisfaction is "an attitude or evaluation that is formed by customers comparing their prepurchase expectations of what they would receive from a product to their subjective perceptions of the performance they actually did receive", this means that customers will compare their expectations according to their previous experiences with their subjective perceptions according to the real experience that they had in the company, the result of this evaluation will be the level of customers' satisfaction. If the company reaches or passes the customers' expectations then customers are satisfied with the service and vice versa if the company does not reach the customers' expectations then the service will get unsatisfied customer's (Li, 2013)

1.5.8 Price Perception

There are many investigations that infer an increase in customers' uncertainty when there is variability in product/service performance over different consumption experiences. This uncertainty generates to depend less on the previous expectations of the product or service. Dodds, Monroe & Grewal (1991) said that according to the customer, the price is often used as a signal in their expectations of the product or service. In addition, customers use to take the price as a signal when assessing their experience with the product or service. The price would influence in the customer behaviors would be more remarkable

because customer experiences will not be the same; the more the persons are involved during the service the more different experiences. This variability in restaurant services should encourage employing the price as a signal of expectation, evaluation, and decision maker. According to Zeithaml (1981) price is “What is given up or sacrificed to obtain a product”. Jacoby and Olson characterized the price as objective price and perceived price; objective price is the real price of a service or product, and perceived price is the price that the customer thinks to be. The objective price of a product or service is less significant than the customer’s subjective interpretation. In any type of restaurant there are offered a lot of products and services, and the prices of these products change extensively. According to Chen, Gupta and Rom it is not proper to use the objective price of a product in defining the role of price because of the complex of the pricing environment. Zeithaml (1981) said that the customers cannot remember the real price of a product or service, but they get the price based on things that are important for them. (Ryu, 2009)

1.5.9 Customer Loyalty

Julander (1997) state that customer loyalty consists in two dimensions; behavioral and attitudinal. The behavioral dimension take into account repeat purchase frequency, the attitudinal dimension takes into account psychological (decision-making or evaluative) commitment to the company. So, a consistent repeat purchase frequency of a company and a favorable attitude gives loyalty to a company. According to Back and some other researchers (2005), there are disadvantages of using the behavioral dimension in evaluating the level of loyalty from the customer. According to Dick and Basu (1994), the behavioral dimension overlooks decision-making methods, because this does not distinguish brand loyalty from simple repeat purchasing behavior. Tepeci (1999) said that even an acquisition is repeated, it does not mean that it is always because of the outcome of a psychological commitment to the company. Back (2005), states that using behavioral dimension implicates not proper multiplication of attitudinal and behavioral feature. The attitudinal method may be more specific, particularly in the hospital industry. According to Schall (2003), in the hospital industry, for ensuring loyalty it is more important to involve attitudinal and emotional commitment. Mattila (2001), states that many customers have a lot of memberships in same kind of companies as restaurants. According to Bowen and Chen (2001), the repeatability of the purchases should not always mean a favorable attitude from the customer to the company. Getty and Thompson (1994), states that, at the moment that the customer is intensely committed to repurchase, recommend, and spend more, it is know that this customer pretends to be loyal to a company. (Ryu, 2009)

1.5.10 Models for measuring quality service

There are some quality service models that have been developed in the pursuit customers’ satisfaction, this models are the followings:

a) IPA model

The IPA analysis is used in the analysis for making decisions, according to Martilla and James (1977), this analysis helps to know the current competitive position of a company, identify opportunities and make a better strategic direction. This method can also assist to state attributes when analyzing service quality and customer satisfaction. (Gwo-Hshiung Tzeng, 2011)

The IPA model consists of a matrix for making analysis of information (See Image 3). This matrix is divided in four quadrants and each quadrant represents the importance for activities as: ‘keep up the good work’, ‘possible overkill’, ‘low priority’, and ‘concentrate here’. It is important to note that the horizontal axis represents the importance perceived by customers and the vertical axis represents the real satisfaction of customers. This tool is useful to find the development of the attributes and to evaluate which are necessary to improve, which does not worth to continue improving and which ones should continue working as it is been doing. In this way the management part could easily understand the pros and cons of the attributes to make decisions. This model has also been used in a lot of study cases for improving the quality in service; (Christine T. Ennew, 1991), (Fan-Yun Pai, 2016), (Gwo-Hshiung Tzeng, 2011)

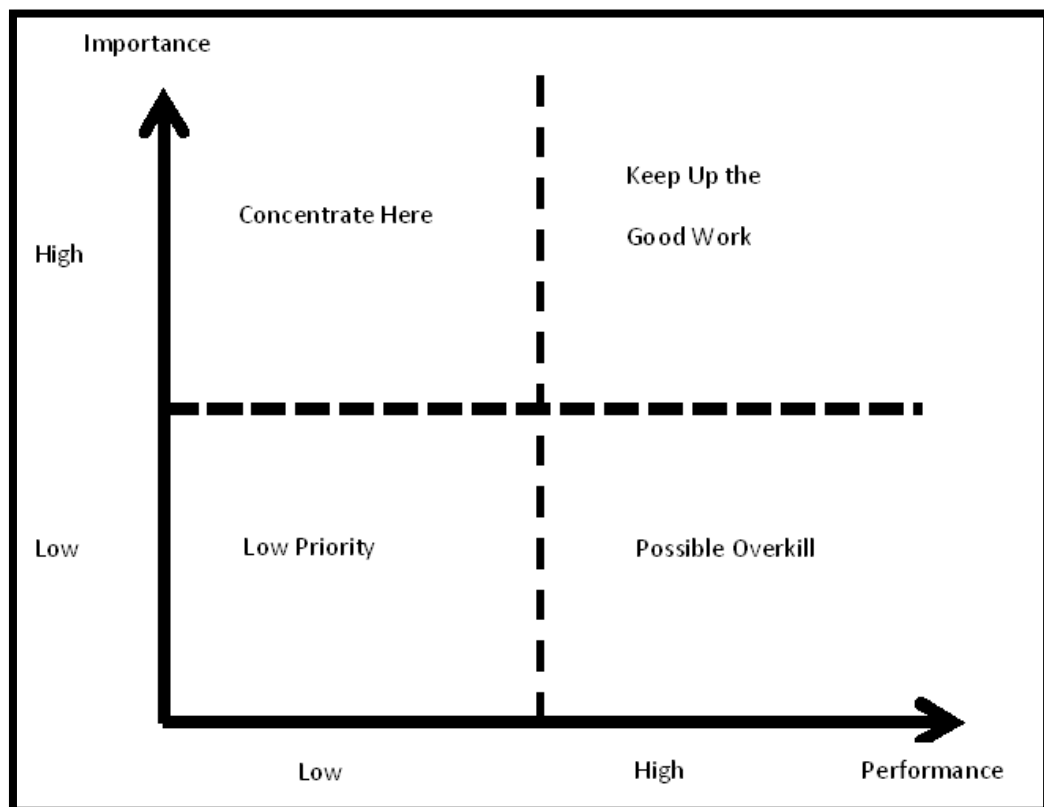


Fig 3. Matrix IPA model (Fan-Yun Pai, 2016)

b) Kano model

The Kano model analysis helps to optimize products and service according to the customer demanding, this method highlights the main quality items and the most important points of interest from customers about the services or products that a company offers. This model divides product quality elements into five categories, namely: attractive quality element, one-dimensional quality element, must-be quality element, indifferent quality element, and reverse quality element. (Fan-Yun Pai, 2016)

According to Kano (1984) the model named on his honor is a two dimensional quality model that divides quality elements into five categories: Attractive quality element. These attributes provide satisfaction when fully achieved, but do not cause dissatisfaction when they are not achieved. These are attributes that are not normally expected. Since these kinds of quality attributes delight customers unexpectedly, they are often not mentioned. One-dimensional quality element. These attributes result in satisfaction when are reached and dissatisfaction when are not reached. These are the attributes that are mentioned and by which companies compete. Must-be Quality element. These attributes are taken for granted when they are satisfied, so it is a really bad point for the company if these attributes are not satisfied. Indifferent Quality element. These attributes refer to aspects that are neither good nor bad, and do not result in either customer satisfaction or customer dissatisfaction. Reverse Quality element. These attributes are complicated because while a characteristic can satisfy some customers, the same characteristic can dissatisfy some other customers. The Kano model provides an idea about the characteristics that are perceived to be important to customers. The goal of the tool is to support specifications and debate through better development of team understanding. Kano also produced a methodology for mapping consumer responses to questionnaires about his model (see Image 4). (Fan-Yun Pai, 2016)

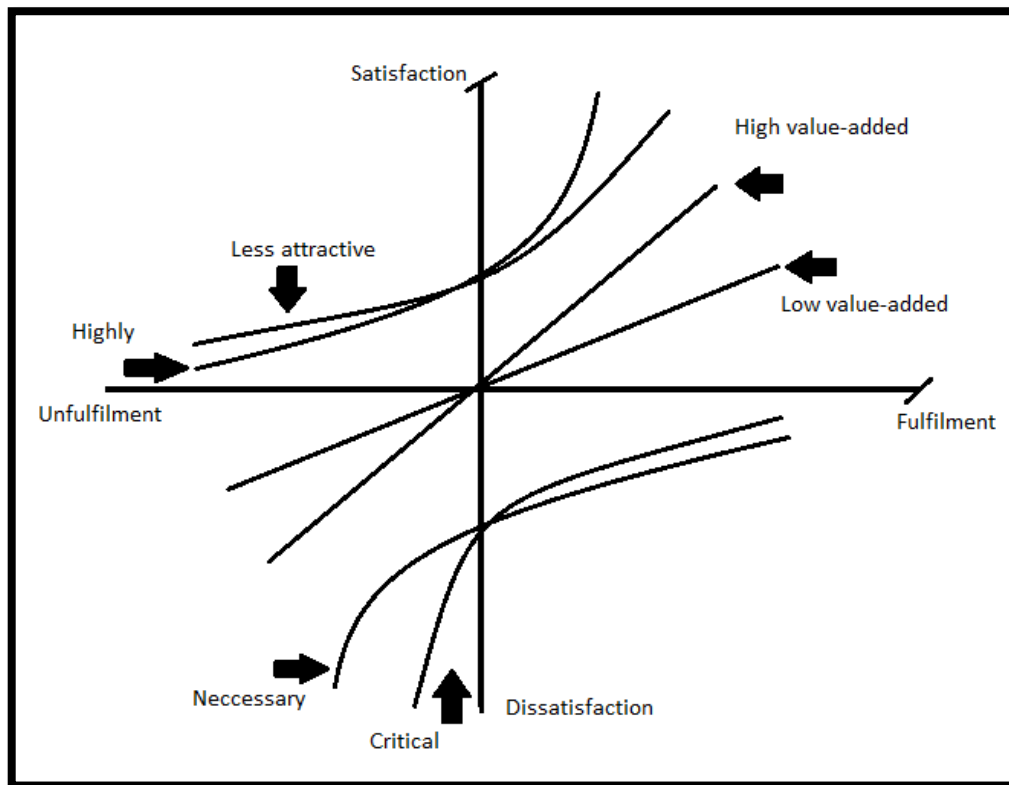


Fig 4. Methodology for mapping consumer responses in the Kano model

c) SERVQUAL model

The SERVQUAL model is one of the most popular models to measure customers' satisfaction. This model compares the expectations of the service versus the real experience of the service from the point of view of the customers as well as a consideration of gaps in the process of service provision. The foundation of SERVQUAL scale was the gap model. Aragón (2014)

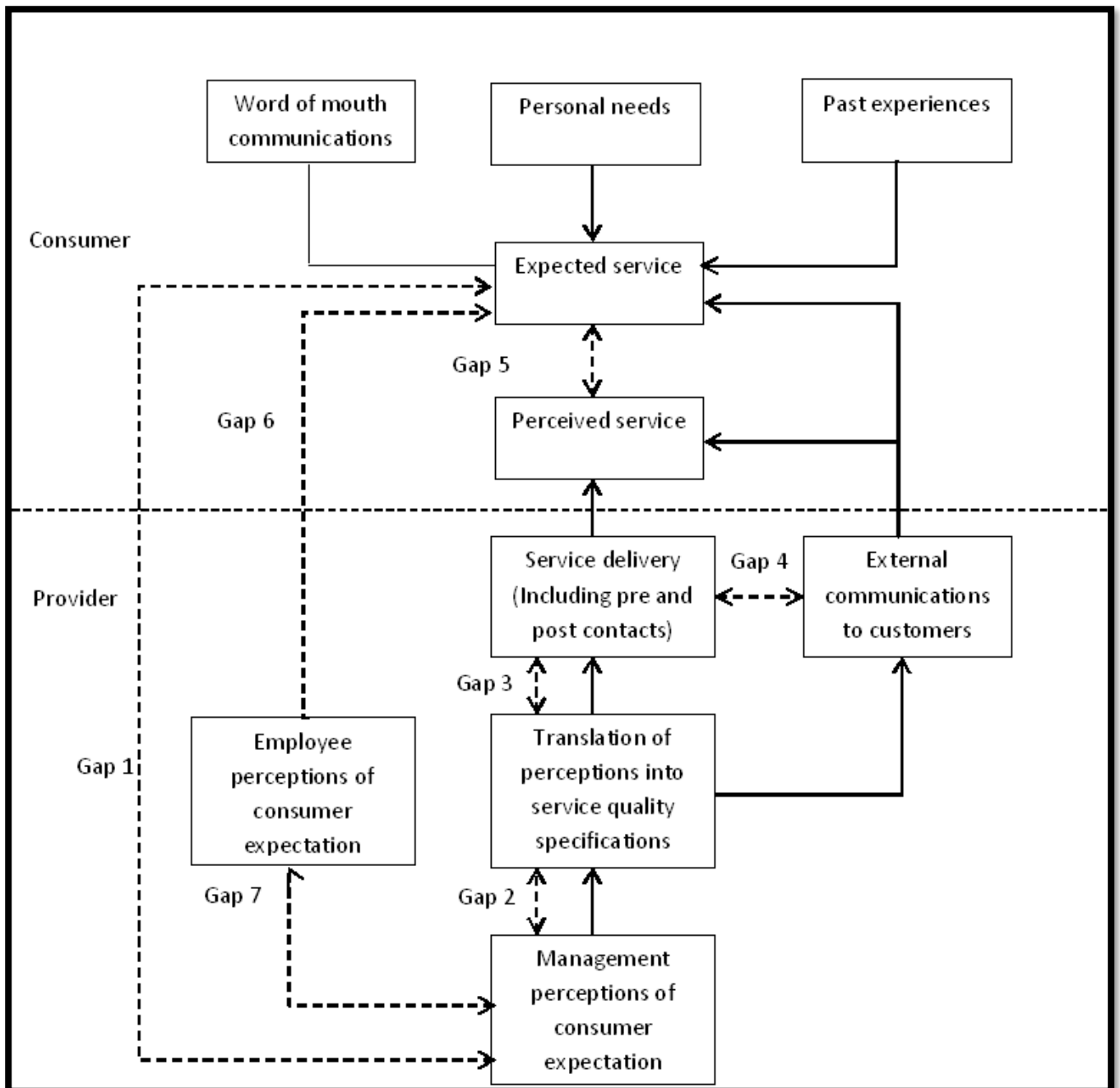


Fig 5. Explanation of the GAPS in the SERVQUAL model

For the gap model there are seven major gaps in the service quality concept:

- Gap 1: This gap is measured between customer expectation and management perception, and it is associated to the external customers Gap between customer expectation and management perception.
- Gap 2: This gap is measured between management perception and service specifications. This gap shows the lack of commitment, standardization and goals from the company.
- Gap 3: This gap is measured between service specifications and service delivery. This gap shows how good the employees are to perform their job, so this shows the lack of control systems and team work.

• Gap 4: This gap is measured between service deliveries and external communication. This gap shows the lack of communication inside company and the over-promise to external and internal customers.

• Gap 5: This gap is measured between customer expectations and customer expectations of the service. This gap is one of the most important for service quality and is directly related to external customer. This model has influence over SERVQUAL model. This gap involves lots of things as the customers' needs, previous experiences, etc.

• Gap6: This gap is measured between customer expectations and employees perceptions. This gap shows the lack of employees understanding of the customers' desires.

• Gap 7: This gap is measured between the employees' perceptions and management perceptions. This gaps shows the lack of communication between the employees' and the managers. (Brun, 2010)

Parasuraman et al.(1985) based on this gaps to build the SERVQUAL model. The SERVQUAL contained first ten dimensions or attributes and then it changed to 5 attributes:

1. Tangibles. This focuses to the appeal of facilities, equipment, material used, appearance of service employees, food and beverage.

2. Reliability. This is to provide an accurate service, doing good at the first time without making mistakes and delivering what the customer asked on time.

3. Responsiveness. This means that the employees are willing to help customers and respond to their requests and then giving prompt service.

4. Assurance. This means that employees' behavior will give customers confidence in the company and that company firm makes customers feel safe. It also means that the employees are always courteous and have the necessary knowledge to respond to customers' questions.

5. Empathy. This means that the firm understands customers' problems and performs in their best interests as well as giving customers individual personal attention and having convenient operating hour. The Servqual model has been widely used in studies to restaurant industry around the world; (Mikhaylov et al, 2015)

Andaleeb & Conway (2006) proposed some improvements for the Servqual model, in their research work they tested the model using the transaction-specific framework, on the results it was obtained that the new changes interpret sufficiently the customer satisfaction and that the companies should focus the attention on three aspects; responsiveness (service quality), price and reliability (food quality). In this order responsiveness was the main aspect for customers, this aspect includes whether the employees were prompt, courteous, knowledgeable, neat in appearance, helpful, attentive, and understood customer needs. The second important aspect is the price, according to the study, when the prices are not what the customers' expected then the customers' satisfaction will decline. This is given because normally the customers have a reference of their past experiences in similar restaurants, so they create an expectation for the prices;

therefore this aspect is important for restaurants to judge a competitive price according to what they are offering. The third aspect in importance is the food quality, even this aspect could be considered to be the most important, the author implies that the restaurants are working so good enough for this aspect that the customers does not take this as principal factor for making a decision when choosing a restaurant. (Conway, 2006)

1.5.11 Process

"A process is a collection or set of interrelated activities that initiate in response the triggering of an event or an order, whose objective is to obtain a specific and discreet result that benefits the client and stakeholders of the process."

Within any process, there are components and features of work such as human capital, artifacts, tools and activity per se. The ways in which relevant components are deployed, how they operate, and how they interconnect generates characteristics that can help or hinder the flow, which in turn creates value or waste.

When creating a process map, symbols and conventions are used to represent work boundaries and to highlight previously selected components, features, and job properties within those boundaries. The set of symbols used to represent the sequence of an input, an activity and an output is known as the IPO (Input, process, out-put) model as shown in Fig. 1.10. (Pinelo, 2015)

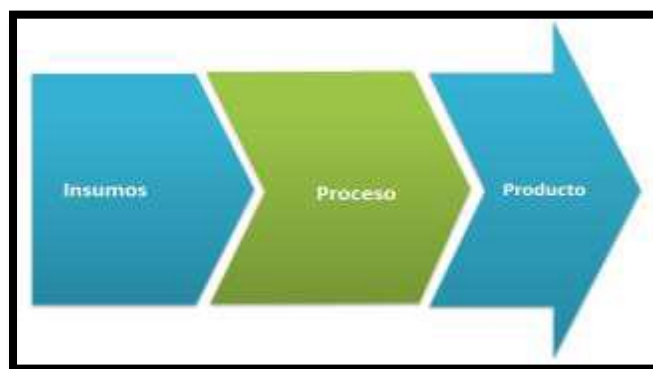


Fig 6. Input, process, out-put

As we can see in Fig. 1.11 the arrows represent the input and output of a work activity, as well as the address, from the origin, the transformation or conversion sequence. The arrow in the middle represents the actions taken during the activity to be transformed. (Pinelo, 2015)

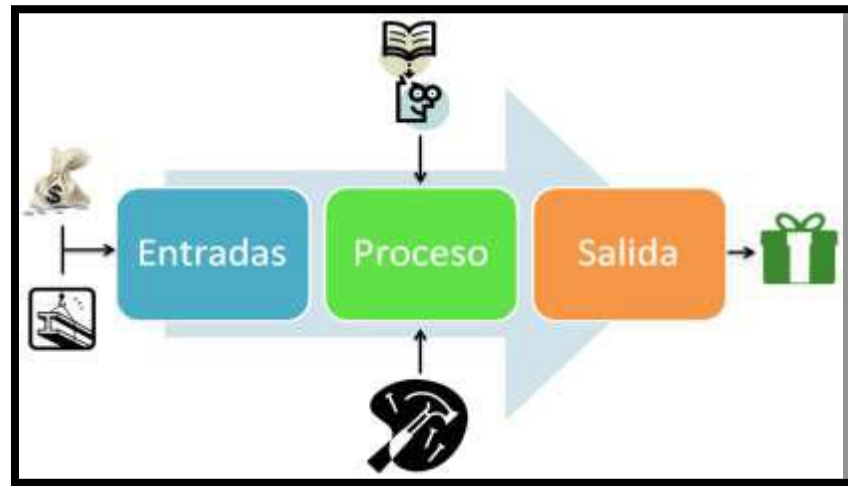


Fig 7. Input and output of a work activity

1.5.12 Flow

In terms of labor or industry, "flow" is a property characterized by the evolution and transformation that occurs from the entry of a resource through the current path of some workflow. Flow is commonly known as the progression or movement of labor along a certain path, but this is generally considered a waste because the simple movement of labor does not create or add value. The ideal state of the "flow" is continuous and is constituted by activities that in their totality always contribute value. Each element flows from beginning to end without any delay, defects or waste. In terms of "Lean" this is called "a piece of continuous flow. (Pinelo, 2015)

1.5.13 Value stream

To move from workflow to "value stream" you need to use the architecture as a model for the operation in question. We make the element and its "path" explicitly visible, which deploy, operate, and connect all the leftover components so that they can work collectively in order to optimize the flow of the element (through the flow of value). Real-time measurements and feedback are generated in relation to the flow of the element and direct customer demand. The value flow as a whole is handled and operated, that is, as a "distinctive value creator" and delivery system whose purpose is to obtain a "one piece continuous flow" without defect, created even just before the consumer expects it. (Pinelo, 2015)

1.5.14 Process mapping

Treviño (2015) established that process mapping is understood as a methodology that seeks to know in detail the main activities of any process as well as the sequence of events that compose it through a schematic representation. The mapping of a process is the first step to be performed in order to evaluate it.

This technique allows us to know and examine a process through a "process map" or "flow chart" to determine where and why major failures occur. It also allows us to carry out the planning and identification of the entry and exit elements in order to obtain a better design and a better operation, in order to establish the necessary strategies to be able to attend to any needs of customers and suppliers. It is one of the best ways to identify risks and communicate the requirements of any type of company.

Apart from showing the sequence of activities, a process map may also include the flow of materials, resources and information needed to complete a process. This way we can ensure that the people involved in it can understand them with a higher level of objectivity, since the steps to follow to complete any task are captured. (Pinelo, 2015)

1.5.15 Importance of mapping a process

According to Treviño (2015), maps and flowcharts help to make the work and operations performed visible in a certain way. The processes are mapped to generate knowledge related to the work or activity represented through the map or flow chart in question, in this way can apply the previously mentioned knowledge in order to achieve a specific goal or any other purpose. Ideally the goal or purpose is explicit, the intention is to improve the business in a measurable way. Finally, the goal must be fully understood by the people who are doing the mapping of any operation. (Pinelo, 2015)

1.5.16 Secret client technique

As Estefany (2015) said, it is also known as mysterious client, incognito client, fictional client, ghost client, is a technique that evaluates the performance of those responsible for serving customers at the point of sale, defining positive and negative aspects according to pre-established standards.

Incognito client studies are very useful for:

1. Monitor from the perspective of the client, compliance with the guidelines of quality in the provision of services.
2. Allows detection of opportunities for improvement at the point of sale, and at all stages of the sales process.
3. Provides information relevant to decision making designed to ensure greater customer loyalty.

Estefany (2015) implies that this study is carried out with a trained team of service auditors who, simulating to be clients, anonymously visit the facilities to qualify critical elements as environmental aspects, the aesthetics of the staff and their attention, elaborating a "visit report". The data of these reports are tabulated and analyzed, being integrated in turn with the periodicity required by the company, in which are attached graphs comparative of performance and statistical analysis of the obtained scores. Incognito, camouflaged under the simple appearance of a young professional, a demanding mother or grandmother, mysterious clients test the practices learned by employees in their training programs.

According to Estefany (2015), in a globalized economy where customer service is key to the purchase decision and to make a competitive difference, five-star hotels, service stations, supermarkets, movie complexes, bookstores, prepaid medicine companies and fast food outlets They hire the services of these undercover buyers. The mystery client is a technique that allows a trained interviewer to see a process from the customer's point of view and measure the quality of care provided by the employee. Always depending on the values that define each organization, in general the aspects that evaluate these spies are the cordiality in the greeting, the waiting times, the personal presentation of the employee, the knowledge of the product, the attention and the commitment in the monitoring of the customer service. It works on the standards required by the company and encourages the employee to know that they will evaluate it. For that they are presented with the questionnaire that will be used by the mysterious clients, in which it is established what is expected of them at the time of the evaluation (Cuartas, 2015)

1.5.17 Distintivo “H”

With the fundamental purpose of reducing the incidence of foodborne diseases among domestic and foreign tourists and improving Mexico's image of food security worldwide, since 1990, a National Hygiene Management Program has been implemented in our country Of Food, Distinctive "H", for all fixed food and beverage establishments. . (Secretaría de Turismo de México, 2014)

The “Distintivo H” is a recognition granted by the Ministry of Tourism and the Ministry of Health to those fixed food and beverage establishments (restaurants in general, hotel restaurants, coffee shops, inns, etc.), to comply with Standards of hygiene that marks the Mexican Standard NMX-F605 NORMEX 2004.

The "H" program is 100% PREVENTIVE, which ensures the warning of contamination that could cause foodborne illness; This program includes a training program for 80% of the operational staff and 100% of the middle and senior staff, this training is guided by a registered consultant with a profile in the chemical-medical-biological area, and the knowledge imparted are structured under guidelines dictated by a group of experts in the field.

What training consists of:

The consultant's advice is to offer the personnel who work in the fixed food and beverage establishments who request it, a series of recommendations and techniques for the washing, disinfection, cleaning, storage, freezing, refrigeration, thawing, personal hygiene, etc. To be implemented as a continuous improvement process.

This information is governed by a checklist that must be fulfilled in a 90% satisfaction and that contemplates the following points:

1. Food reception
2. Storage

3. Management of chemical substances
4. Refrigeration and freezing
5. Kitchen Area
6. Food preparation
7. Service area
8. Water and Ice
9. Employee health services
10. Waste Management
11. Pest control
12. Personal
13. Bar

When the establishment is subject to these standards and complies with them, the Ministry of Tourism delivers the Distinctive "H" recognition, which is valid for one year. (Secretaría de Turismo de México, 2014)

1.5.18 PDCA

The Deming cycle PDCA or Wheel: Plan (Plan), Do (Do), Check or Check, Action was improved and put into practice by Dr. Deming as a strategy Of continuous improvement processes in companies.

Plan:

1. Determine what needs to be done. Objectives and their measurement.
2. Determine methods for achieving goals.

Do:

1. Educate and teach
2. Implement jobs

Check:

1. The plan
2. Results of solutions
3. Overall Results

Action:

1. Make the right decisions

When an employee or area encounters a problem in applying standards in their task, it is quantified, analyzed and identified the causes to propose solutions, setting new, more ambitious standards. Therefore a PDCA cycle is used to analyze problems and plan actions starting by the daily control phase (C) of an SDCA cycle in the standards maintenance process. (Hernández, 2001)

2. METHODOLOGY AND RESULTS

2.1 Methodology

According to Guzmán (2014) the methodology in this research work has a quantitative focus based on a deductive scheme and a factorial analysis, in the calculation of the standard deviation, the arithmetic mean between customers' expectations and perceptions (Guzmán, 2014). With this model it is intended to get the main opportunity areas and then according to the results to suggest improvements to the company "Palua café y artesanías". The questionnaires were applied to the customers of the company at the final of their experience in the café; this is when the customer is paying the bill. Each questionnaire was captured in a database in Microsoft Excel 2017 and then it was used a statistics software to process the data, in this case was SPSS.

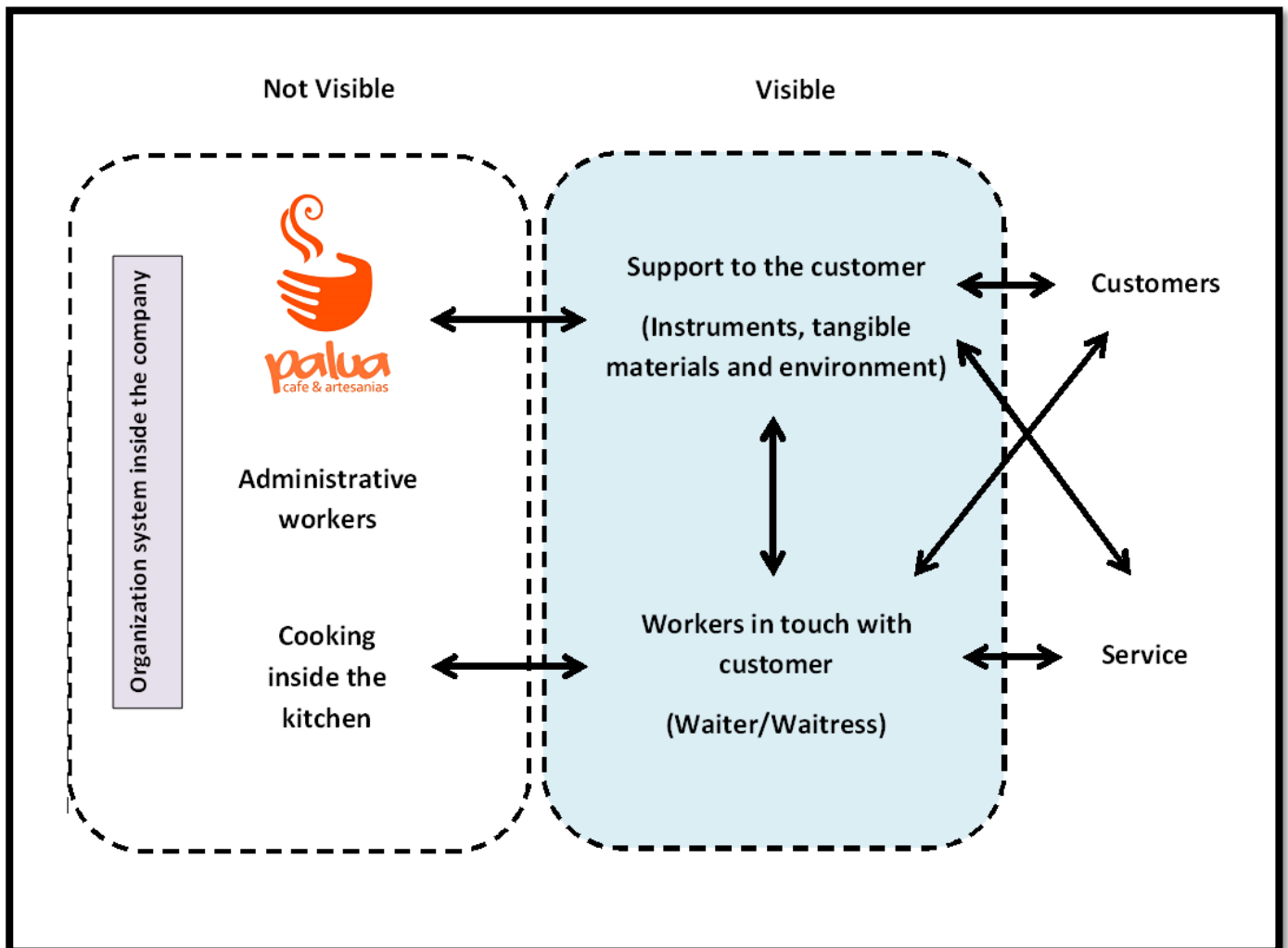


Fig 8. Internal organization system. (Guzmán López & Cárcamo Solís, 2014)

For the study case of this research work, the questionnaires were applied to the customers of the company "Palua café y artesanías" since the perceptions and expectations needed for this job must be evaluations directly from the customers of the company. For obtaining the sample it was took as example

the method used in [1], and for the case of study of the company “Palua café y artesanías” it consisted in first getting the total population size from a random period of two months (10 February 2017 - 10 April 2017), for this the company “Palua café y artesanías” gave the information of the number of clients for each day, so the final population size was 1221 according to the Table 4.

Table 2.1 – Number of clients each week from 10-February-2017 to 10-April-2017

Week number	Number of clients
1	253
2	164
3	109
4	146
5	103
6	124
7	103
8	157
9	62
Total	1221

The sample size was obtained using the statistics formula related with infinitive population:

$$n = (\sigma)^2(N)(p)(q)/(e)^2(N - 1) + (\sigma)^2(p)(q) \quad (2.1)$$

where: n – sample size;

σ – Level of confidence (through the values provided in the normal distribution table in the appendix 5);

N – Population size;

p – Probability in favor;

q – Probability against;

e – Error of estimation, number of possible permissible errors in every 100 results (maximum permissible error in terms of proportion).

According to the data obtained, the level of reliability and the acceptable percentage with respect to the estimation error, the values for the formula are the following:

n – Unknown value

$s = 95\% \div 100 = 0.95 \div 2 = 0.475 \rightarrow$ the value obtained from the normal distribution table is 1.96 (appendix 5)

N = 1221.

$$p = 50\% = 0.5.$$

$$q = 50\% = 0.5.$$

$$e = 6.5\% = 0.065.$$

Introducing the values in the formula it was obtained the results:

$$n = (\sigma)^2(N)(p)(q)/(e)^2(N-1) + (\sigma)^2(p)(q)$$

$$n = (1.96)^2(1221)(0.5)(0.5)/(0.065)^2(1221-1) + (1.96)^2(0.5)(0.5), n = 191.769023$$

The size of the sample to use is 192 quizzes to apply, the trust level is 95% and the mistake estimation is 6.5% for this research work.

The quality service was measured using the SERVQUAL model which consists of 29 questions which measures 5 attributes; tangibles, reliability, responsiveness, assurance and empathy. The last 6 questions were obtained from the study case (Guzmán & Solís, 2014) and can also be found in the study case (Markovic, 2013), these were based on the research work (Andaleeb & Conway, 2006). These last questions represent two important attributes related to price and total service quality (Table 2.5). There are also questions to meet the market of the company, this questions are about age, gender, origin, occupation and number of visits to the company (Table 2.4), this questions were also used in study cases as (López & Solís, 2014) and (Martínez, 2006). The model uses a likert scale for the measuring instrument (Table 2.3).

Score	Scale
1	Totally disagree
2	Disagree
3	Something disagree
4	Indifferent
5	Something agree
6	Agree
7	Totally agree

Table 2.3 – Liekert Scale

Question	Posible answer
Age	Number
Origin	City, State or Country
Gender	Masculine / Femenine
Ocupation	Description of the occupation
Is your first time visiting "Palua Café y Artesanías"?	Yes / No
Number of visits in the last month	Number

Table 2.4 – Demographic questions

Attribute	Questions
1	2
	The café...
Tangibles	Visually attractive parking areas and building exteriors.
	Visually attractive dining area.
	Clean, neat and appropriately dressed staff.
	Décor typical of its image and price range
	Easily readable menu.
	Visually attractive menu.
	Comfortable seats in the dining room.
	Clean restrooms.
	Clean dining areas.
	Comfortable seats in the dining room.
Reliability	Service in the promised time.
	Quick correction of wrong service.
	Dependable and consistent restaurant.
	Accurate bill.
1	2
	Error-free served order (food)
Responsiveness	Maintaining speed and quality of service during busy times.
	Provision of prompt service.
	Extra effort for handling special requests.
Assurance	Employees can answer questions completely
	Comfortable and confident feeling.
	Staff provide information about menu items, their ingredients, and method of preparation.
	Feeling personally confident about the hygienic preparation of food.
	The staff seem well trained, competent and experienced.
	The company supports the employees.
Empathy	The staff is sensitive to your needs and desires, rather than following standard policies and procedures.
	The staff makes you feel special as a customer giving you personalized attention.
	Anticipation of customers' individual needs and desires.
	Sympathetic and reassuring employees.
	Always seems to take into account the interests of customers
Price	Expensive food items.
	Paying more than planned.
Satisfaction	Overall satisfaction with dining experience.

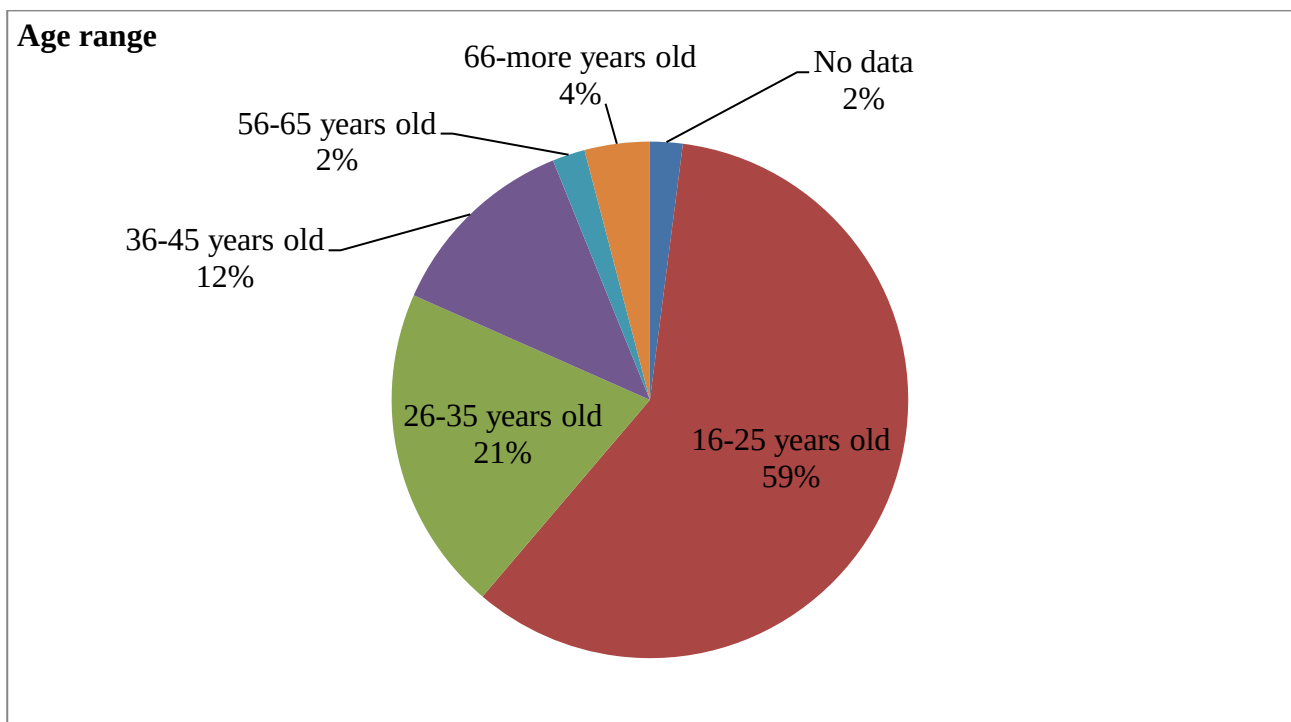
	It is that cafe where, undoubtedly, the customer would return in the future
	The customer would recommend the restaurant to others.
	Excellent quality of service.

Table 2.5 – Attributes and items of the SERVQUAL model

The final questionnaire can be found in the Appendix 1.

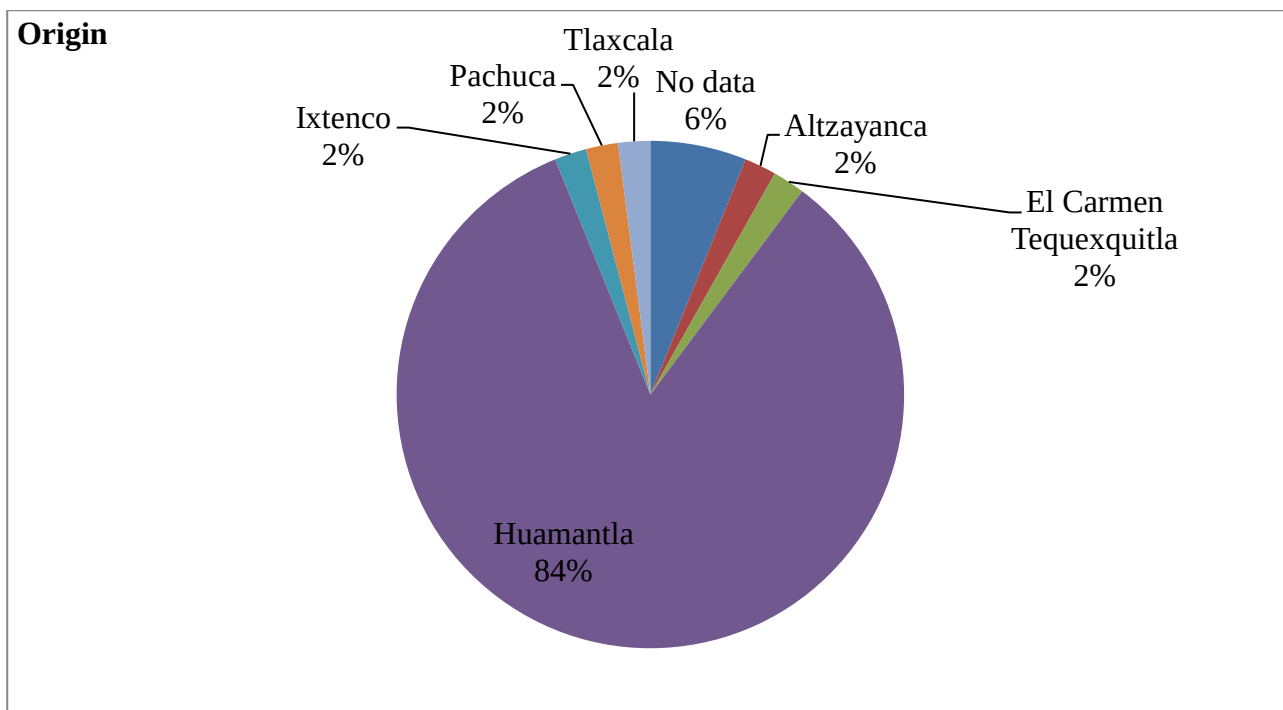
2.2 Results

The next graphic shows the age range of the surveyed people. Most of the customers are between 16-25 years old which represents the 59% the total population continued to customers with a age range of 26-35 years old.



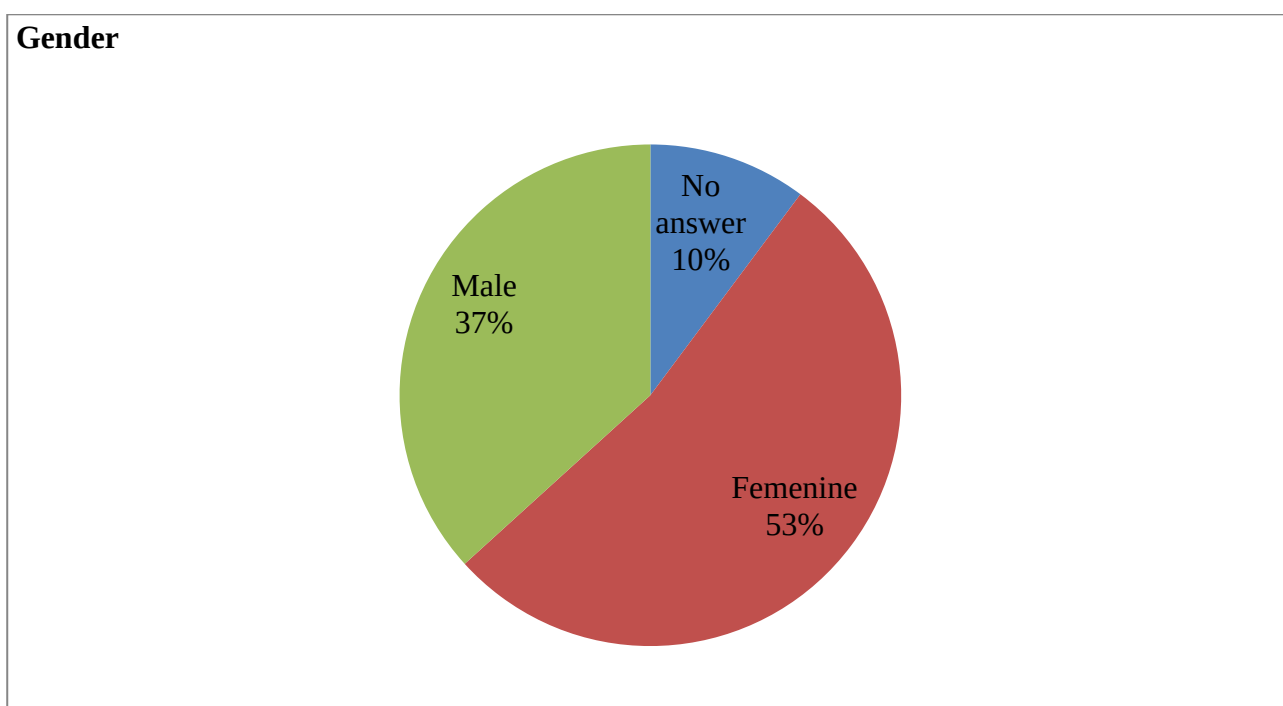
Graphic 5. Item: age range

The next graphic shows the origin of the surveyed people, most of the customers are from Huamantla representing the 84% of the total population, while the other customers were from close cities and just the 2% were from another state in Mexico.



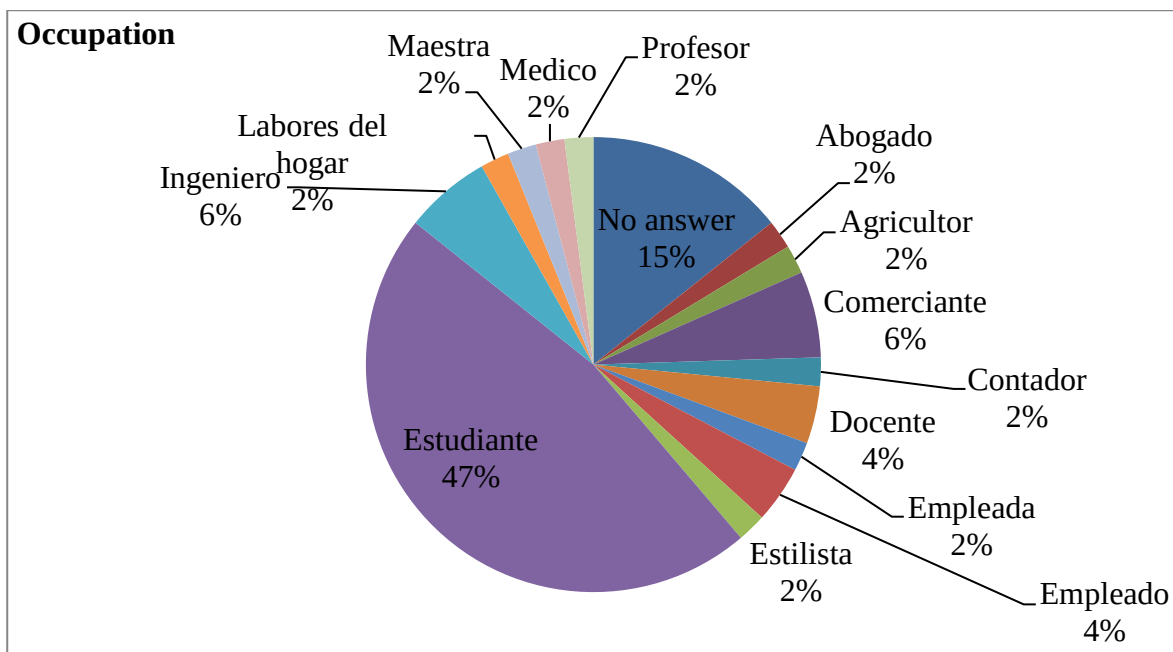
Graphic 6. Item: origin

The next graphic shows the gender of the surveyed people, most of the customers were female representing 53% of the population and 37% were male, the 10% didn't answer this question.



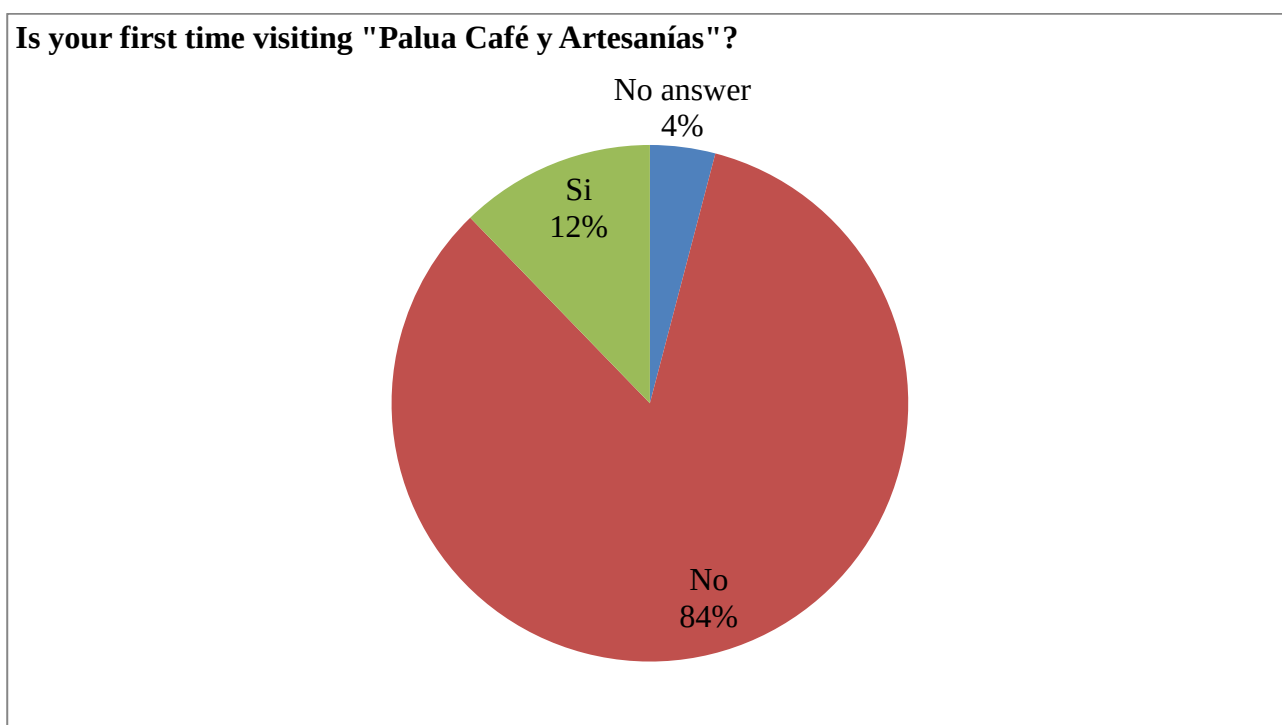
Graphic 7. Item: gender

The next graphic shows the occupation of the surveyed people, most of the customers are students, representing the 47% of the population and the rest are various occupations.



Graphic 8. Item: occupation

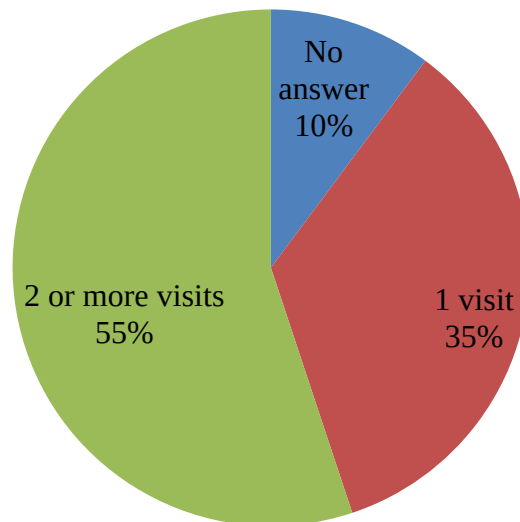
The next graphic is about new customers, it shows that there were just 12% of new customers.



Graphic 9. Item: Is your first time visiting "Palua Café y Artesanías"?

The next graphic shows loyalty from the customer's, it shows that 55% percent of the population have visited the company two or more times in the last month, and 35% have visited the company just once.

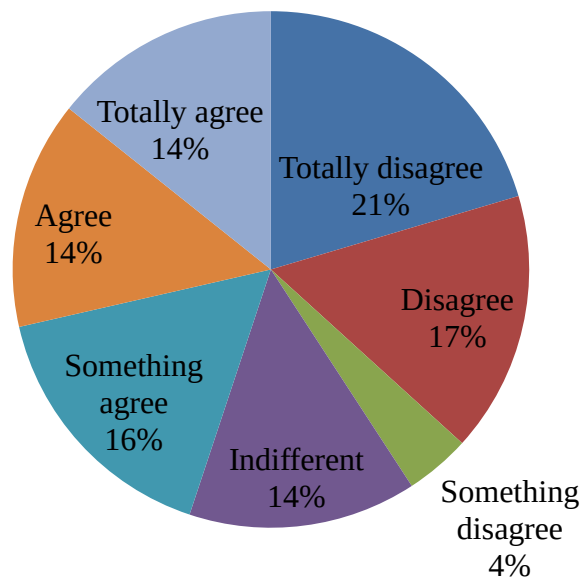
Number of visits in the last month



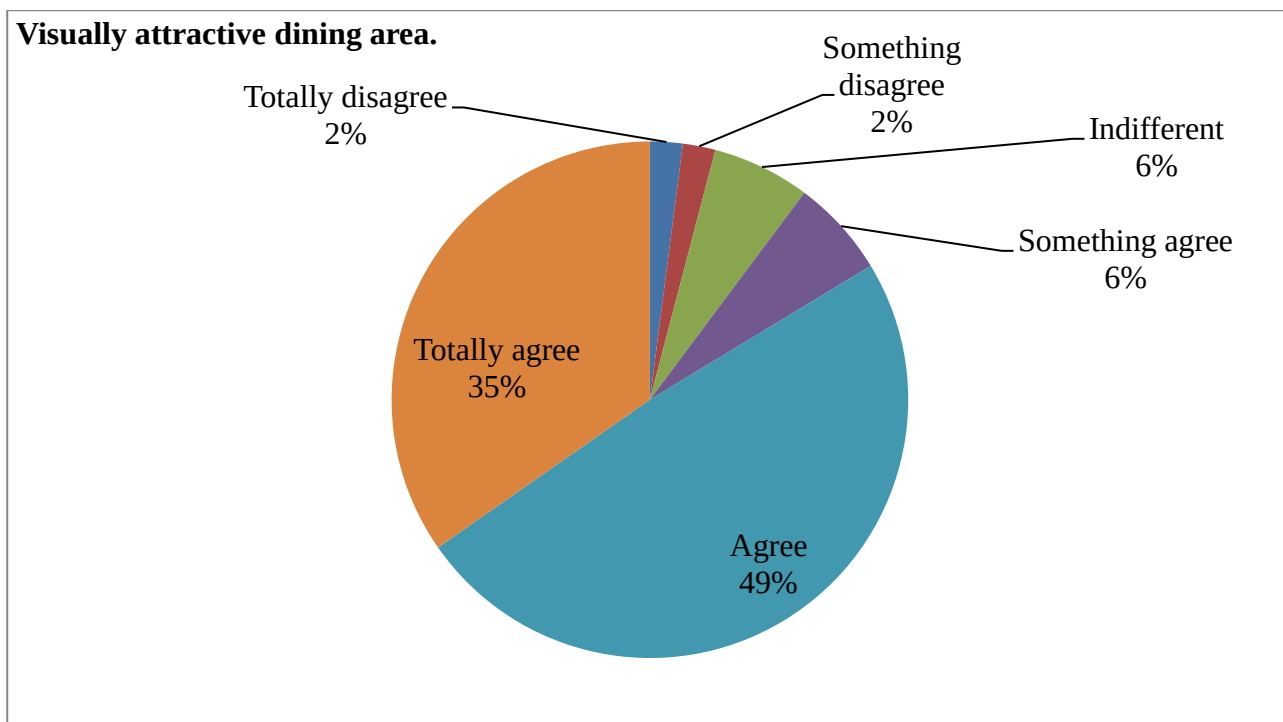
Graphic 10. Item: Number of visits in the last month

The following graphics shows the result of each item of the perceptions survey, this helped to analyze every item deeply

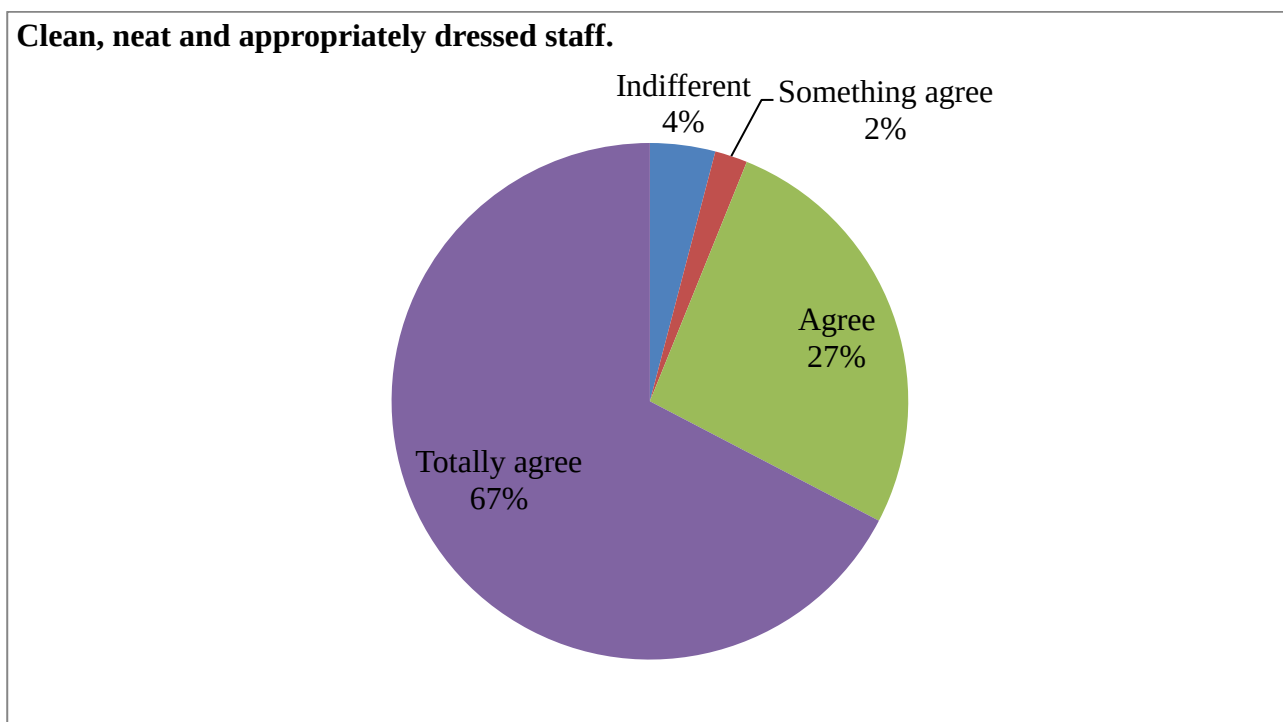
Visually attractive parking areas and building exteriors.



Graphic 11. Perceptions item: Visually attractive parking areas and building exteriors

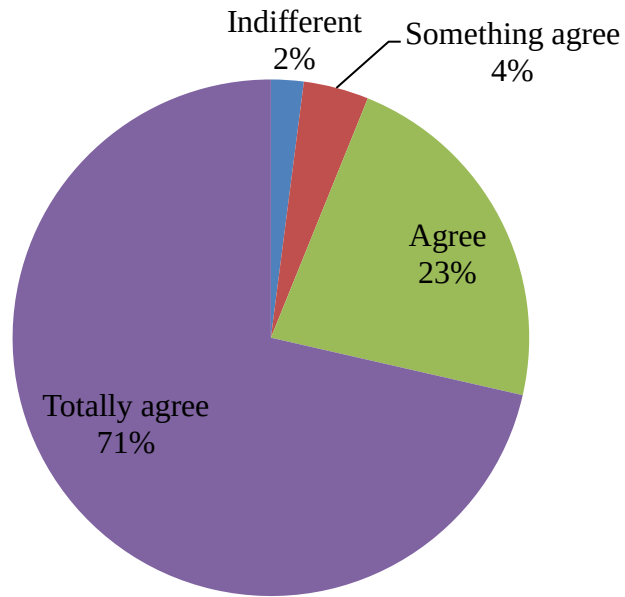


Graphic 12. Perceptions item: Visually attractive dining area



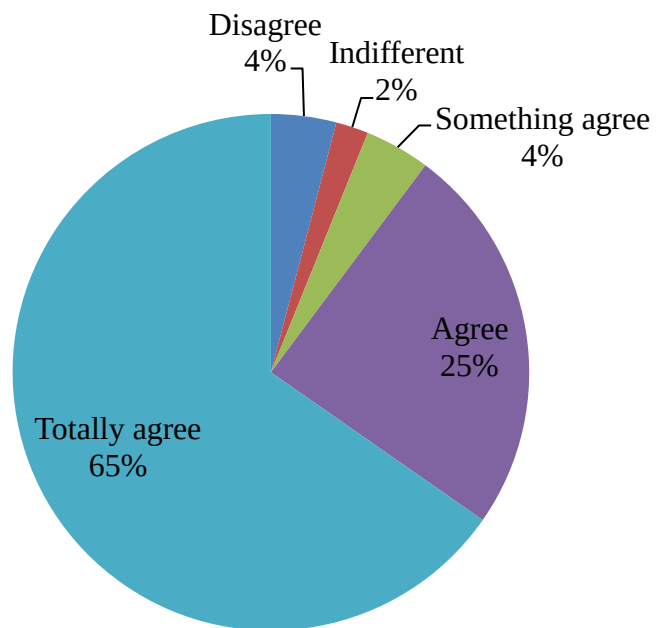
Graphic 13. Perceptions item: Clean, neat and appropriately dressed staff

Décor typical of its image and price range.



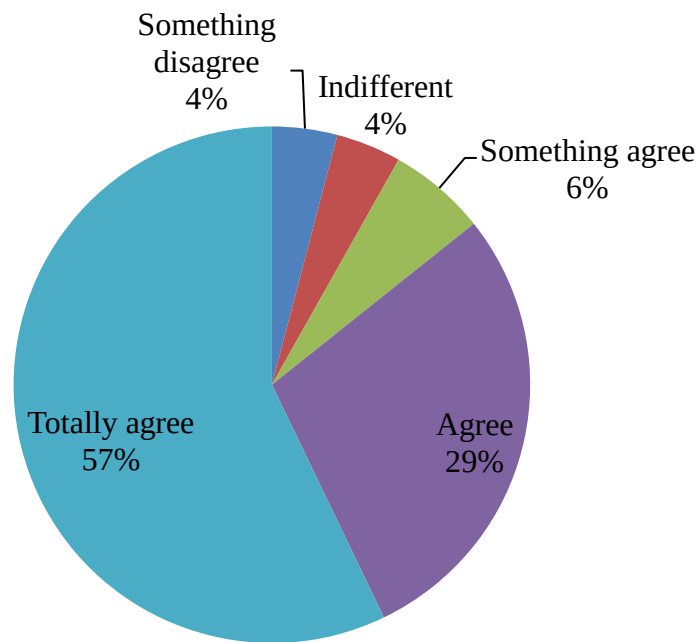
Graphic 14. Perceptions item: Décor typical of its image and price range

Easily readable menu.



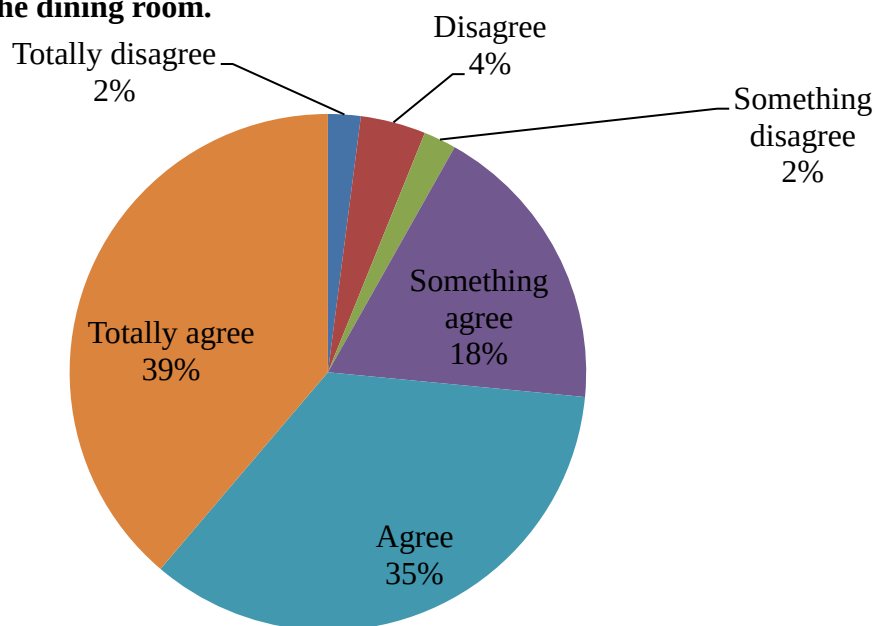
Graphic 15. Perceptions item: Easily readable menu

Visually attractive menu.



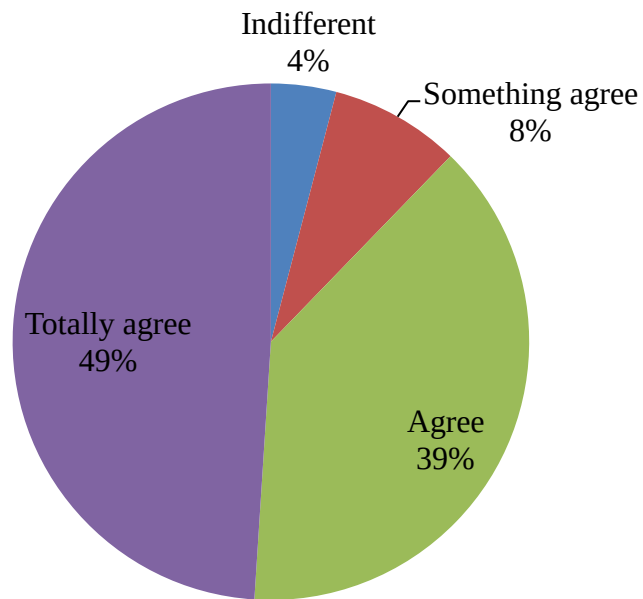
Graphic 16. Perceptions item: Visually attractive menu

Comfortable seats in the dining room.



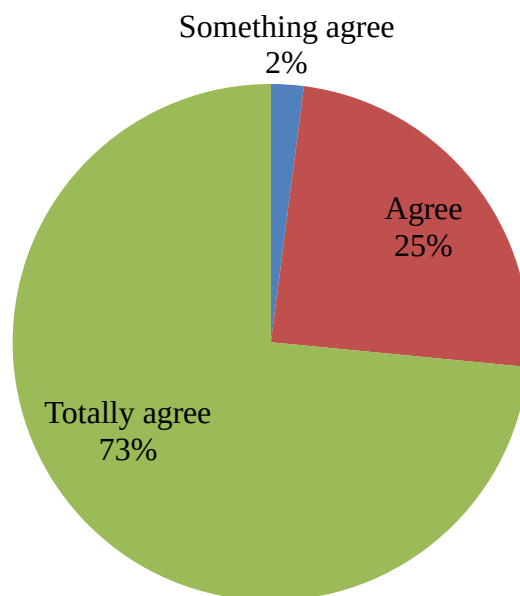
Graphic 17. Perceptions item: Comfortable seats in the dining room

Clean rest rooms.

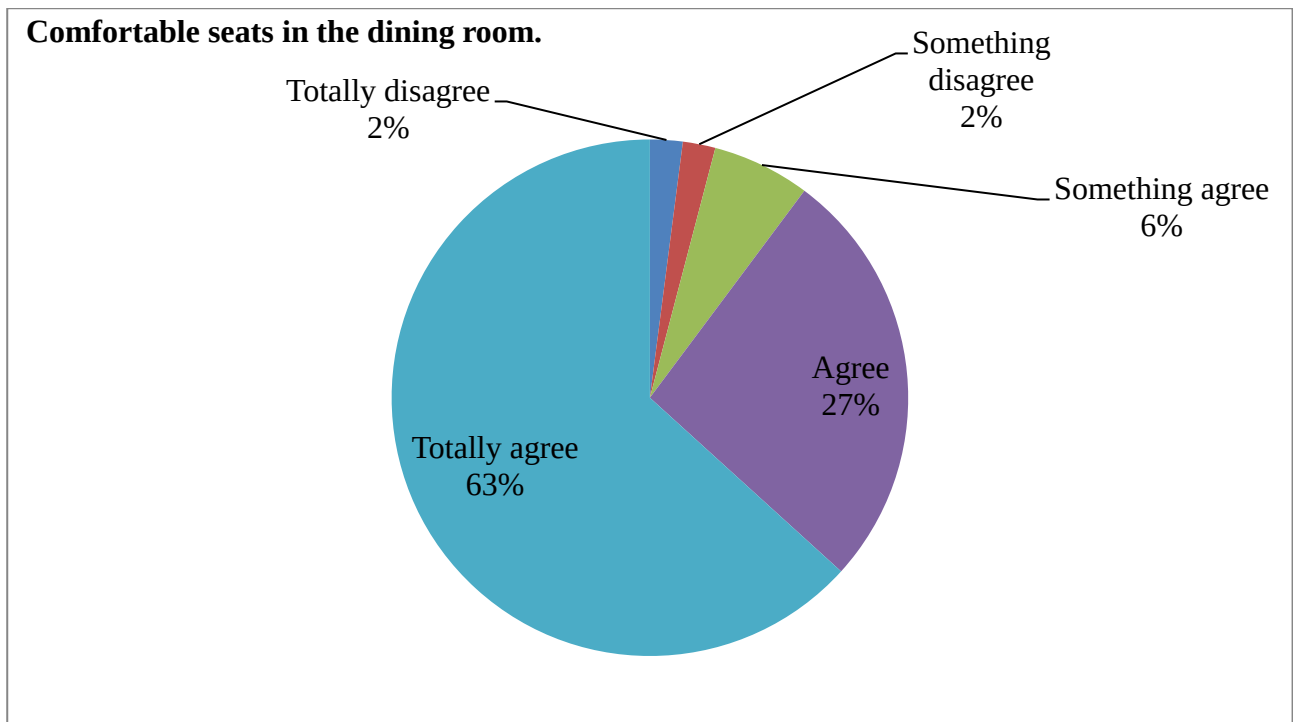


Graphic 18. Perceptions item: Clean rest rooms

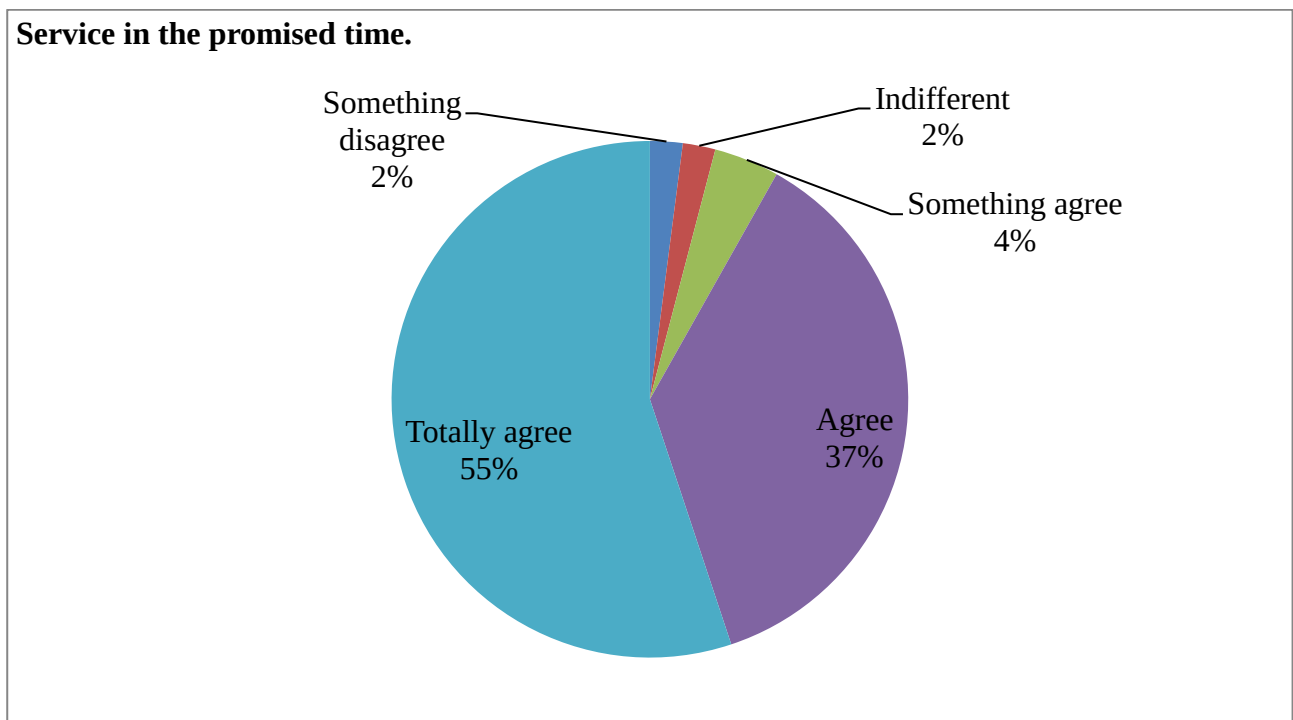
Clean dining areas.



Graphic 19. Perceptions item: Clean dining areas

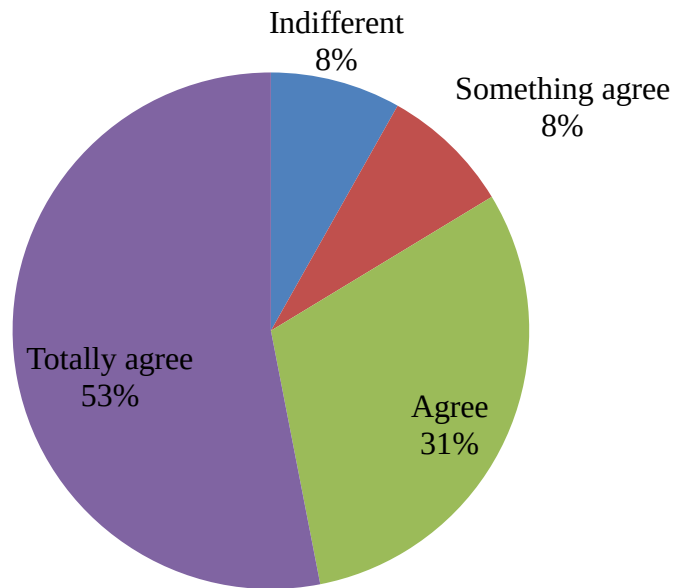


Graphic 20. Perceptions item: Comfortable seats in the dining room



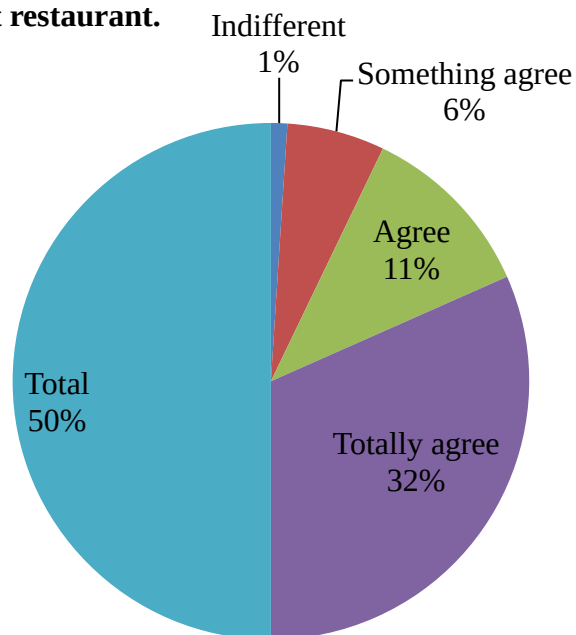
Graphic 21. Perceptions item: Service in the promised time

Quick correction of wrong service.



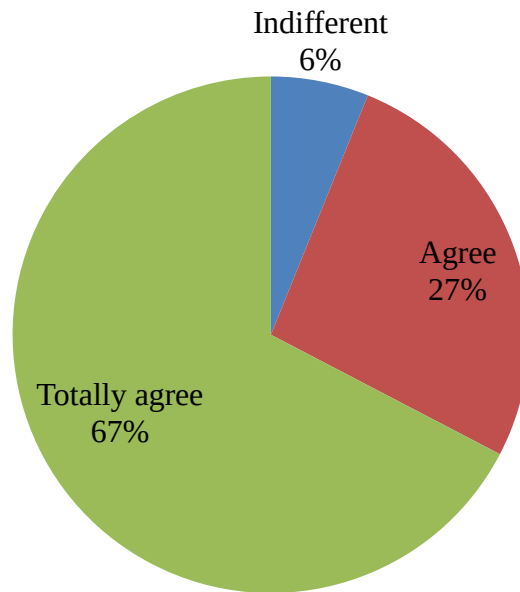
Graphic 22. Perceptions item: Quick correction of wrong service

Dependable and consistent restaurant.



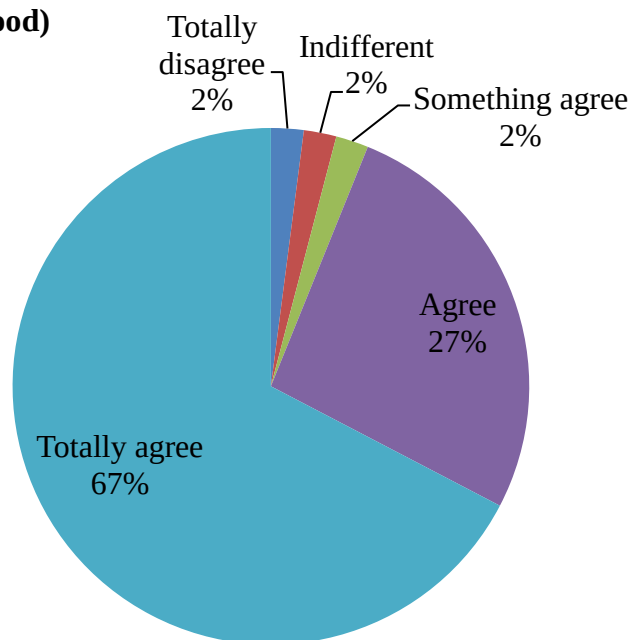
Graphic 23. Perceptions item: Dependable and consistent restaurant

Accurate bill.



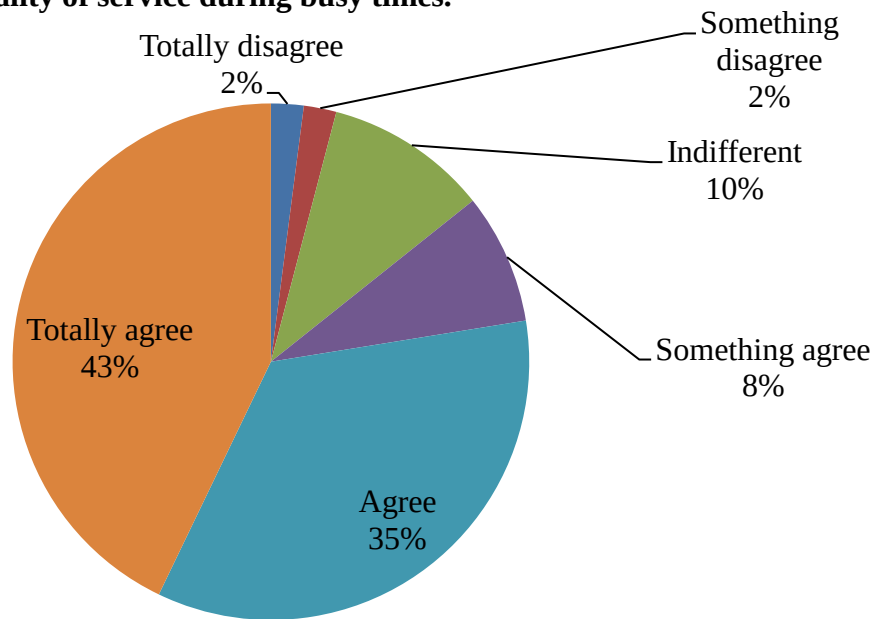
Graphic 24. Perceptions item: Accurate bill

Error-free served order (food)



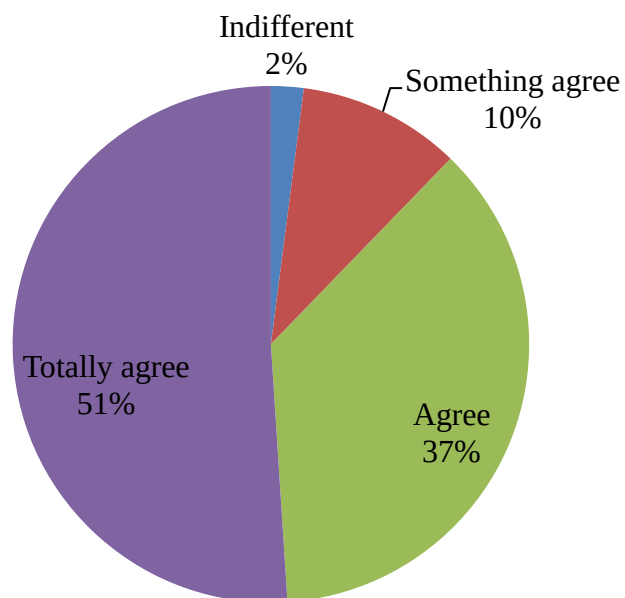
Graphic 25. Perceptions item: Error-free served order (food)

Maintaining speed and quality of service during busy times.



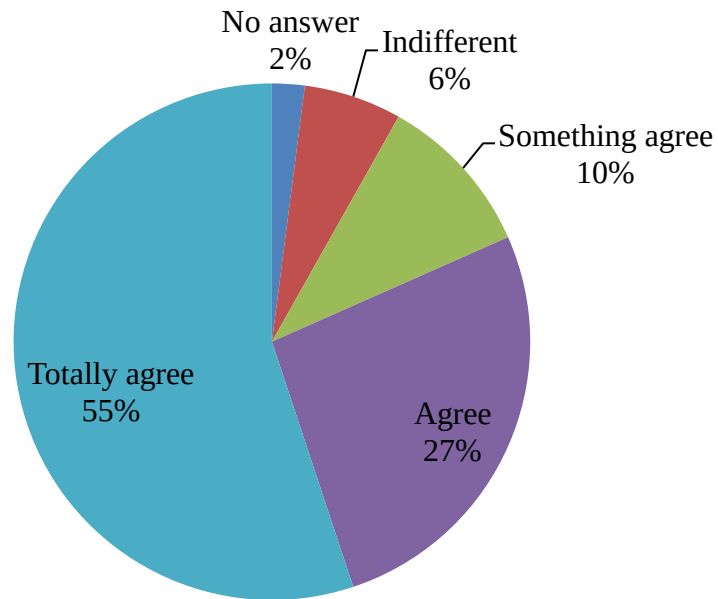
Graphic 26. Perceptions item: Maintaining speed and quality of service during busy times

Provision of prompt service.



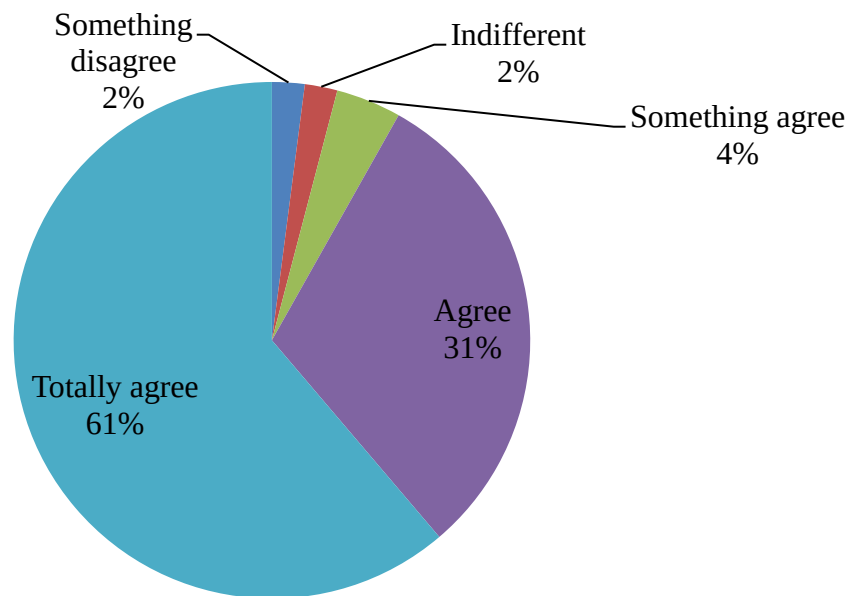
Graphic 27. Perceptions item: Provision of prompt service

Extra effort for handling special requests.



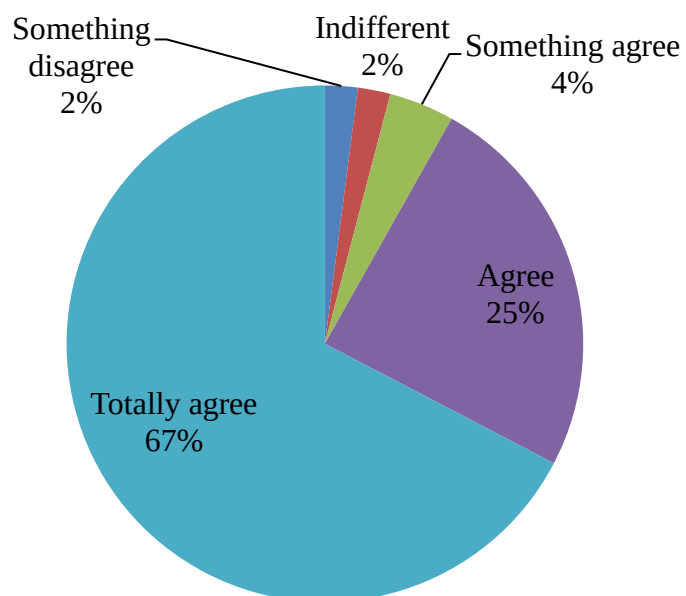
Graphic 28. Perceptions item: Extra effort for handling special requests

Employees can answer questions completely.



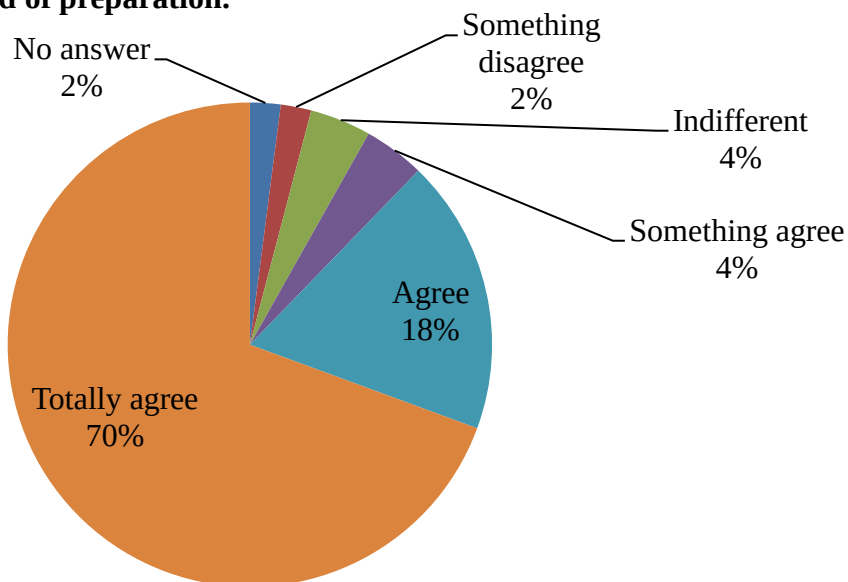
Graphic 29. Perceptions item: Employees can answer questions completely

Comfortable and confident feeling.



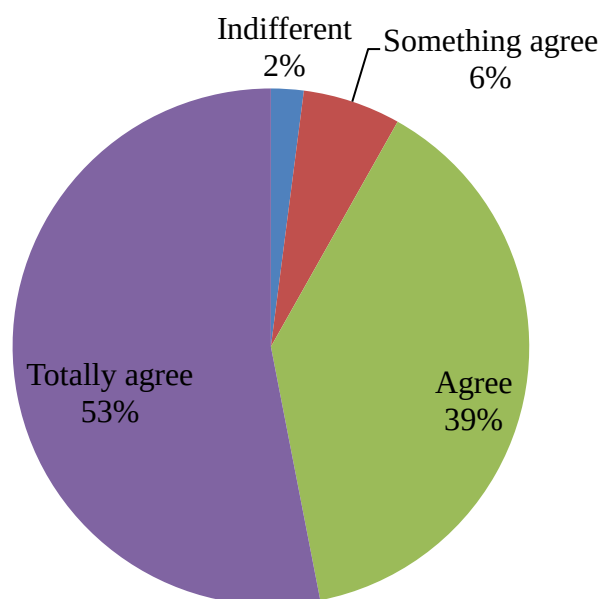
Graphic 30. Perceptions item: Comfortable and confident feeling

Staff provide information about menu items, their ingredients, and method of preparation.



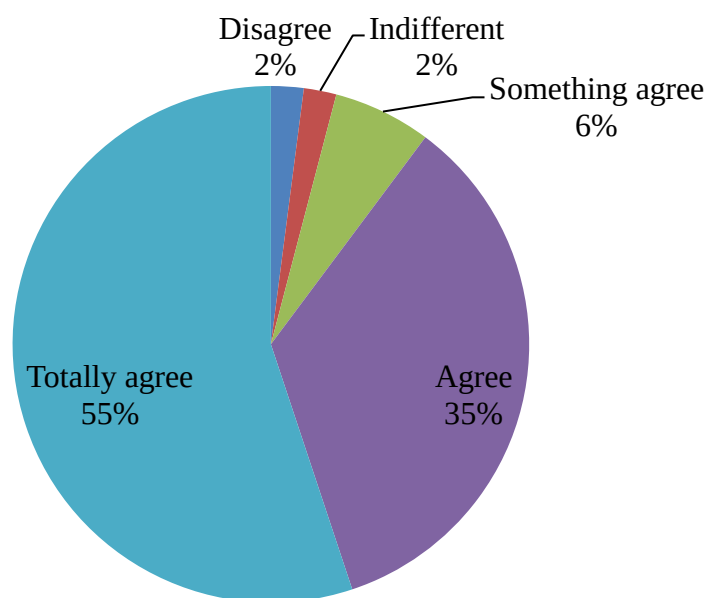
Graphic 31. Perceptions item: Staff provide information about menu items, their ingredients, and method of preparation

Feeling personally confident about the hygienic preparation of food.

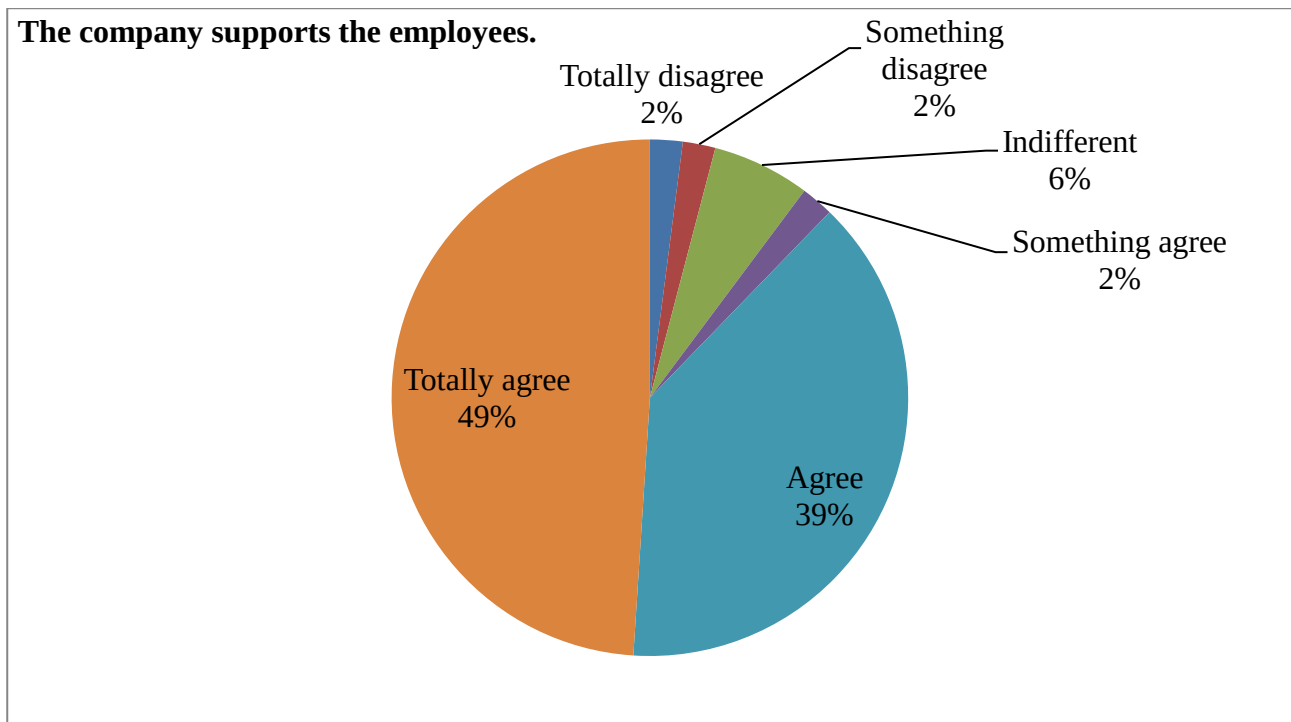


Graphic 32. Perceptions item: Feeling personally confident about the hygienic preparation of food

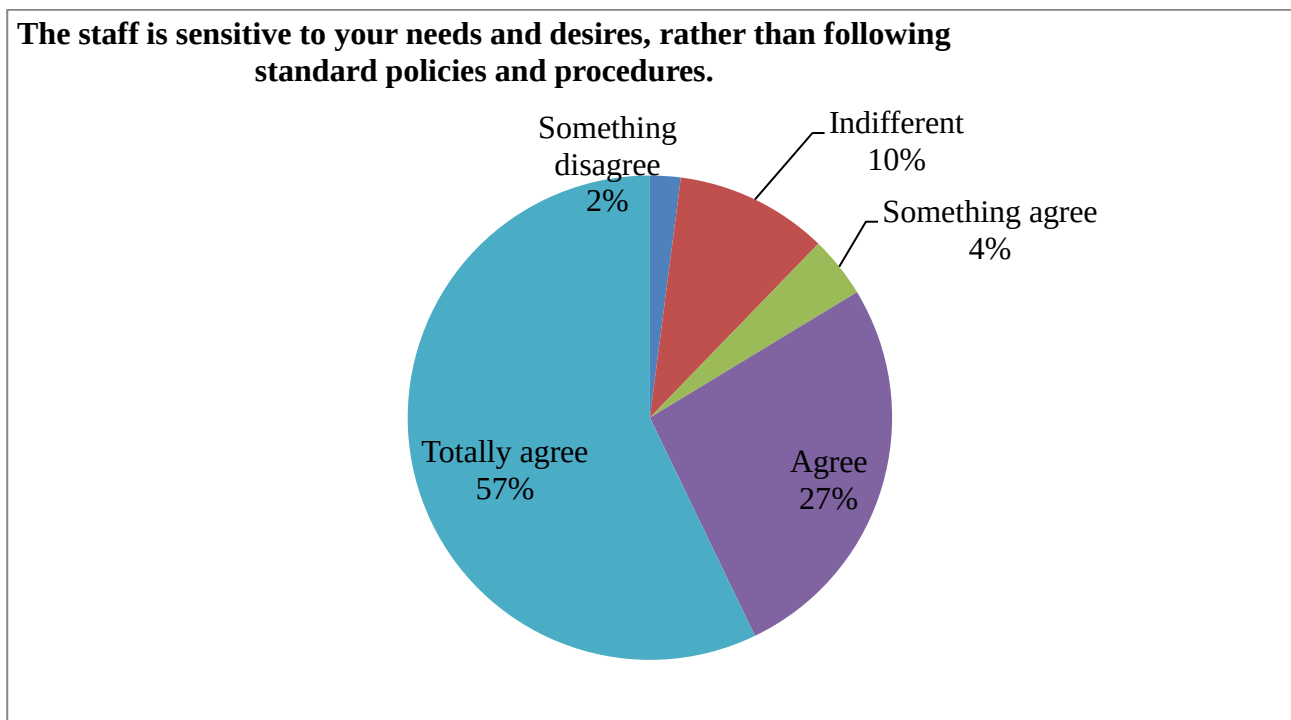
The staff seem well trained, competent and experienced.



Graphic 33. Perceptions item: The staff seems well trained, competent and experienced

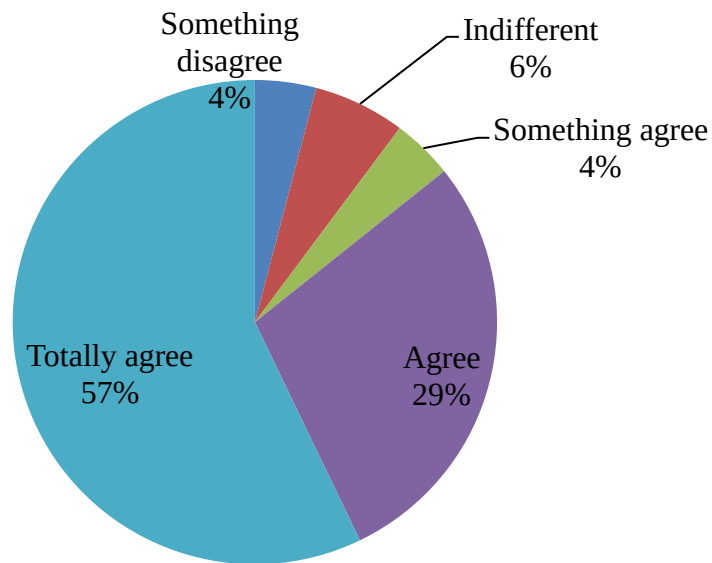


Graphic 34. Perceptions item: The company supports the employees



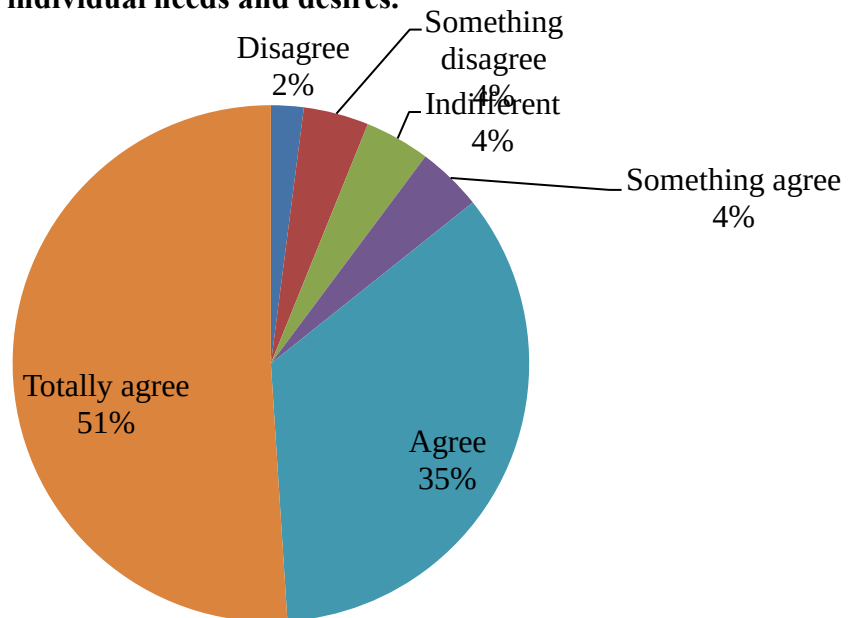
Graphic 35. Perceptions item: The staff is sensitive to your needs and desires, rather than following standard policies and procedures

The staff makes you feel special as a customer giving you personalized attention.



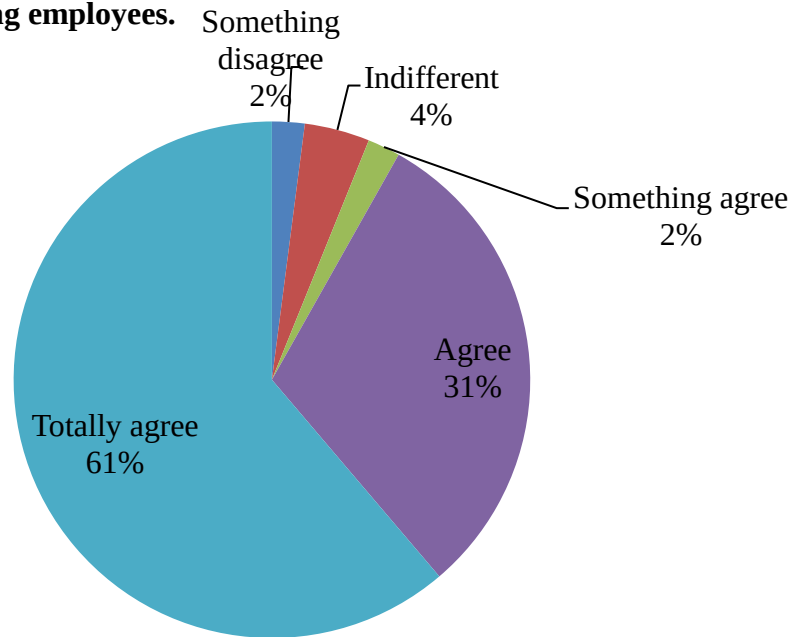
Graphic 36. Perceptions item: The staff makes you feel special as a customer giving you personalized attention

Anticipation of customers' individual needs and desires.



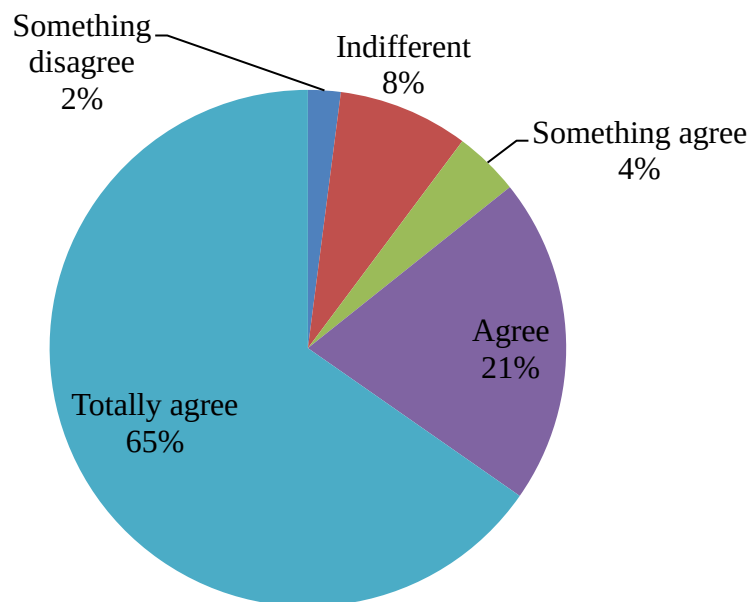
Graphic 37. Perceptions item: Anticipation of customer's individual needs and desires

Sympathetic and reassuring employees.



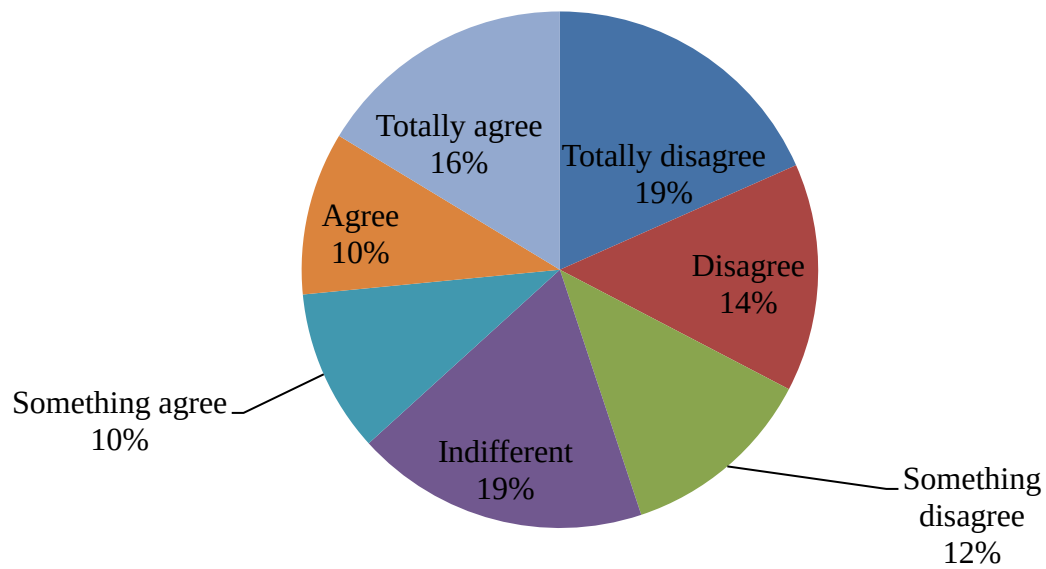
Graphic 38. Perceptions item: Sympathetic and reassuring employees

Always seems to take into account the interests of customers



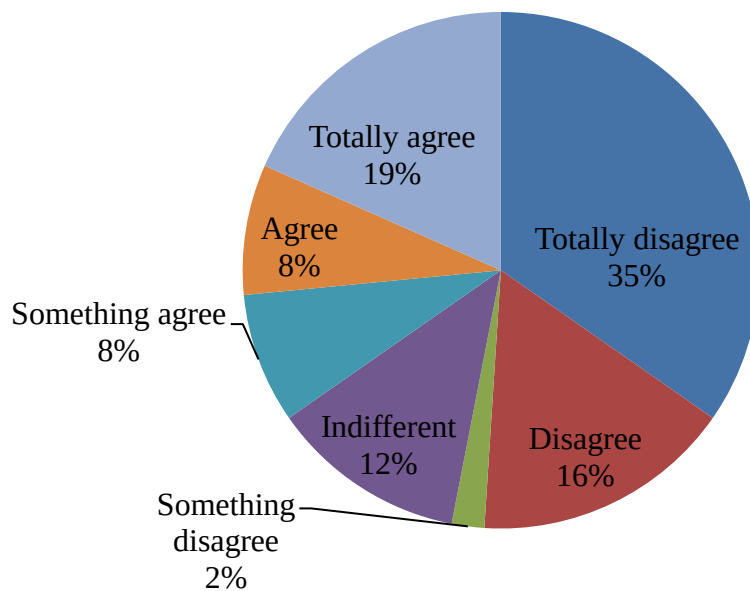
Graphic 39. Perceptions item: Always seems to take into account the interests of customers

Expensive food items.

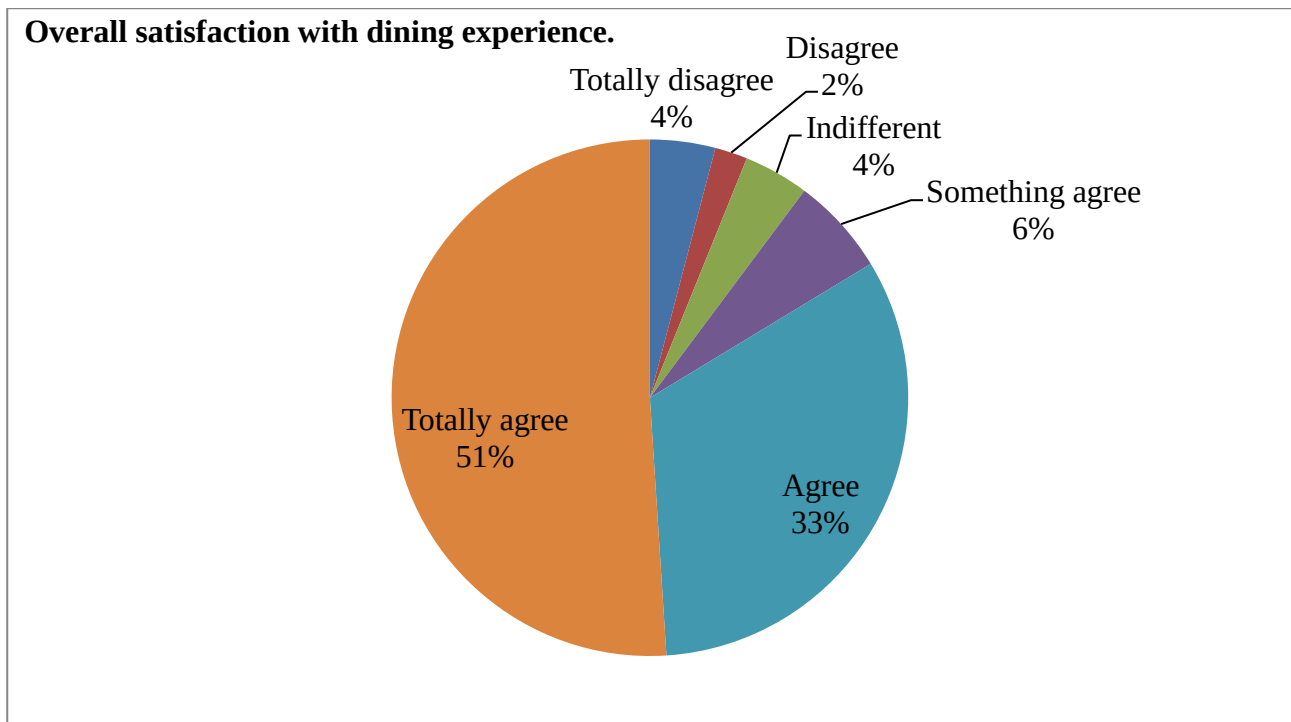


Graphic 40. Perceptions item: Expensive food items

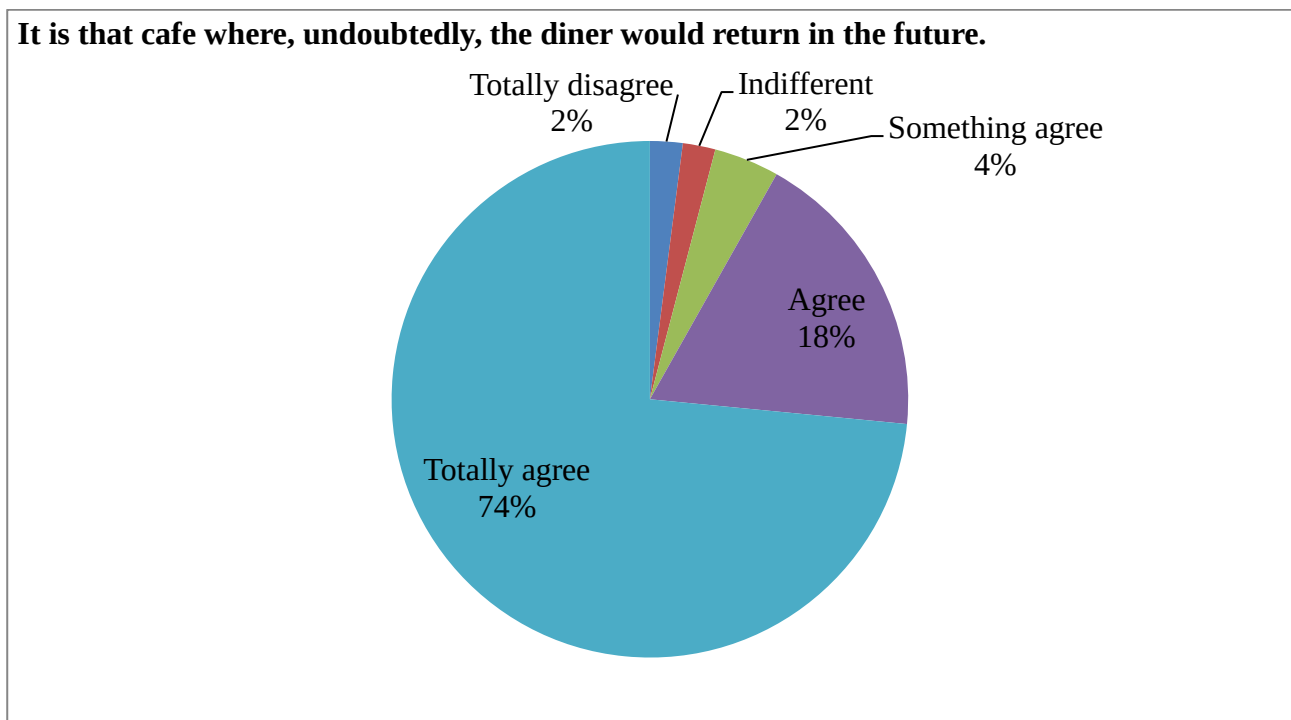
Paying more than planned.



Graphic 41. Perceptions item: Paying more than planned

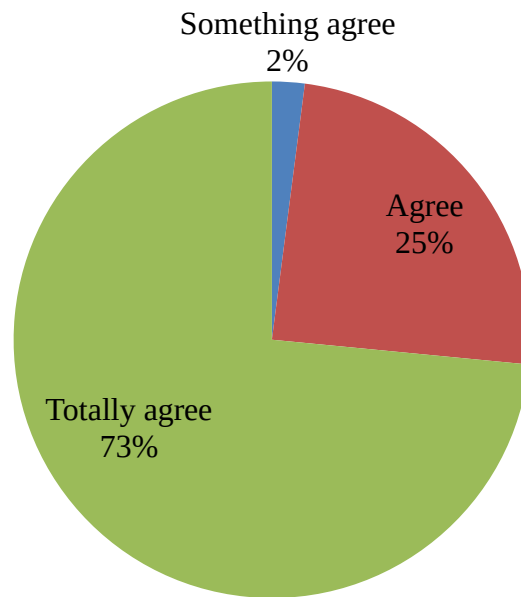


Graphic 42. Perceptions item: Overall satisfaction with dining experience



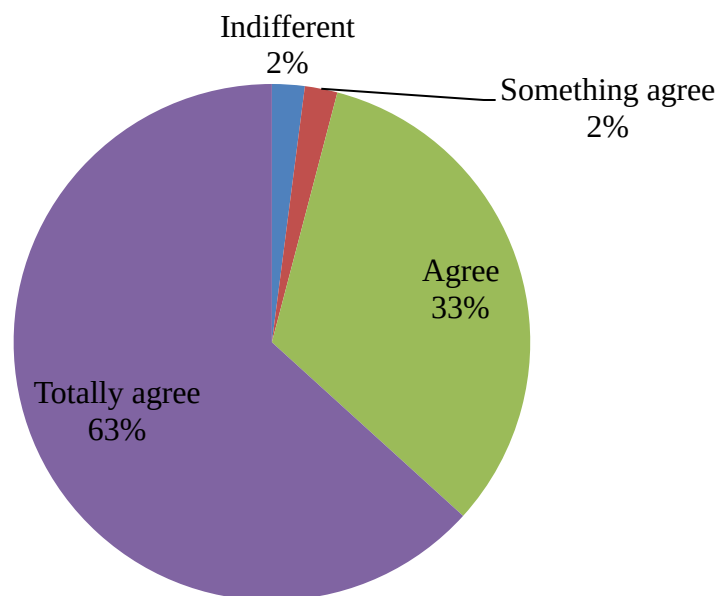
Graphic 43. Perceptions item: It is that café where, undoubtedly, the customer would return in the future

The customer would recommend the restaurant to others.



Graphic 44. Perceptions item: The customer would recommend the restaurant to others

Excellent quality of service.



Graphic 45. Perceptions item: Excellent quality of service

The next table shows the comparison between expectative and perceptions, there is also the GAP between the arithmetic averages of expectative and perceptions, as the table shows, there are just tree items with low score, this are the items 1, 7, 22, and 24, because these obtained a negative score and means that the expectative were higher than the perceptions. So these are the main issues, but for this study case, the focus relays on the seven main problems, taking the Pareto principle to focus on the 20% main issues, to solve the 80% of the problems.

Table 2.6 – GAP between expectative and perceptions

Question	Expectative		Perceptions		GAP (Arithmetic average)
	Standard deviation	Arithmetic average	Standard deviation	Arithmetic average	
1	2	3	4	5	6
1) Visually attractive parking areas and building exteriors.	1.404	5.63	2.153	3.90	-1.73247559893523
7) Comfortable seats in the dining room.	1.220	5.98	1.394	5.88	-0.10070984915706
22) Feeling personally confident about the hygienic preparation of food.	0.547	6.52	0.707	6.43	-0.09316770186335
24) The company supports the employees.	0.736	6.24	1.202	6.18	-0.05545696539485
30) Expensive food items.	1.954	3.70	0.801	3.70	0.00044365572316
1	2	3	4	5	6
16) Maintaining speed and quality of service during busy times.	1.145	5.98	1.283	5.98	0.00133096716948
32) Overall satisfaction with dining experience.	1.105	5.98	1.304	5.99	0.01818988464951
13) Dependable and consistent restaurant.	0.679	6.37	0.793	6.47	0.09982253771074
21) Staff provides information about menu items, their ingredients, and method of preparation.	0.711	6.37	1.455	6.47	0.10337178349601
2) Visually attractive dining area.	1.197	5.89	1.173	6.00	0.10869565217391
18) Extra effort for handling special requests.	0.998	6.07	1.274	6.20	0.13886424134871
20) Comfortable and confident feeling.	0.682	6.39	0.844	6.53	0.13930789707187
8) Clean rest rooms.	0.762	6.33	2.095	6.47	0.14108251996451
23) The staff seems well trained, competent and experienced.	0.749	6.20	0.951	6.37	0.17169476486247
14) Accurate bill.	0.741	6.37	0.792	6.55	0.18145519077196
33) It is that cafe where, undoubtedly, the diner would return in the future.	0.679	6.37	1.042	6.55	0.18145519077196
17) Provision of prompt service.	0.942	6.15	0.755	6.37	0.21517302573203
35) Excellent quality of service.	0.756	6.30	0.645	6.57	0.26708074534161

26) The staff makes you feel special as a customer giving you personalized attention.	0.919	6.00	1.080	6.29	0.28571428571429
29) Always seems to take into account the interests of customers	0.985	6.09	1.037	6.39	0.30079858030169
34) The customer would recommend the restaurant to others.	0.580	6.41	0.500	6.71	0.30124223602484
15) Error-free served order (food)	1.046	6.20	1.023	6.51	0.31455190771961
19) Employees can answer questions completely.	0.842	6.15	0.844	6.47	0.31721384205856
11) Service in the promised time.	1.208	6.09	0.840	6.41	0.32120674356700
5) Easily readable menu.	1.041	6.07	1.135	6.41	0.34294587400178
25) The staff is sensitive to your needs and desires, rather than following standard policies and procedures.	0.962	5.91	1.076	6.27	0.35226264418811
6) Visually attractive menu.	1.289	5.93	1.045	6.31	0.37133984028394
28) Sympathetic and reassuring employees.	0.815	6.04	0.891	6.45	0.40550133096717
9) Clean dining areas.	0.695	6.30	0.500	6.71	0.40993788819876

Table 2.6 continuation

1	2	3	4	5	6
3) Clean, neat and appropriately dressed staff.	0.859	6.13	0.736	6.57	0.44099378881988
10) Comfortable seats in the dining room.	1.115	5.96	1.117	6.41	0.45164152617569
12) Quick correction of wrong service.	1.088	5.80	0.935	6.29	0.48136645962733
31) Paying more than planned.	2.058	2.83	2.371	3.41	0.58207630878438
4) Décor typical of its image and price range.	1.154	6.04	0.668	6.63	0.58917480035493
27) Anticipation of customers' individual needs and desires.	1.188	5.50	1.185	6.18	0.68367346938776

Choosing the 20% of the issues, there are 7 issues which are on the next table:

Table 2.7 – Main issues and proposed improvement ideas

Issue (Number Item)	Improvement idea
1) Visually attractive parking areas and building exteriors.	Discuss with an expert.
7) Comfortable seats in the dining room.	Discuss with an expert.
22) Feeling personally confident about the hygienic preparation of food.	Prepare the Company for obtaining the “Distintivo H” certificate from Mexico’s government.
24) The company supports the employees.	Make a training matrix and ensure meetings with the employees.

30) Expensive food items.	Compare prices with competitors. Optimize areas as the inventory so it will be able to save money and then to decrease prices.
16) Maintaining speed and quality of service during busy times.	Take times of the processes and find the wastes of time.
32) Overall satisfaction with dining experience.	Implement secret customer.

For the first (visually attractive parking areas and building exteriors) and second (comfortable seats in the dining room) issues it seems more suitable to discuss the problem with an interior designer.

The third issue (feeling personally confident about the hygienic preparation of food), the proposal is to get the company prepared to obtain the “Distintivo H” certificate from Mexico’s government, this will make the company to improve the processes focusing on the preventive of all kind of contaminations. To implement this point, it is necessary to use as reference the checklist of the policy NMX-F-605-NORMEX-2004 which can be found on the “Secretaria de turismo de México” web page in the next link: <http://www.gob.mx/cms/uploads/attachment/file/7494/lista-de-verificacion-de-la-nmx-f-605-normex-2004.pdf>. These are the checklists for the application and obtaining of the “Distintivo H”, the company has to ensure to accomplish all of these points. After the company can ensure this, if the company wants to get the certificate, it will be necessary to ask the service of a consultant company, a certified consultant can be found in the “Secretaria de turismo de México” web page.

The fourth issue (the company supports the employees), it is proposed to implement a training registration matrix (Appendix 2), this will help to ensure that all the employees has taken all the required trainings, and to trace each employee. It is also necessary to ensure meetings everyday with all the employees, these meetings always help to solve problems inside the company and to improve every detail that the employees find out in the processes, the service, etc. The company must take more attention on every employee to detect the weaknesses and strengths of each one. The meetings will help to trace every detected issue, but the responsibility relays always on the managers. To ensure the trace on these meetings it is proposed to implement one PDCA (Appendix 3), this tool helps to find the solution to problems and to force finishing date, so there will be a trace and the issue won’t be forgotten.

For the fifth issue (Expensive food items), the company first have to compare their actual prices with the prices of similar companies, in the case that the other Cafés manage similar prices, then Palua cannot make a big change on the prices, but if the prices of Palua are higher than the other cafés, then for sure the company have to make some adjustments to decrease prices. Talking with the owners of the company, one of the biggest issues is the management of the company, being more specific the lack of control in the inventory. The lack of control in the inventory can create many issues and lost in money as: the owners use to ask for food and drinks without paying and there is no register of it, the employees can also take food or drinks for free and without registering it, the owners normally have to buy several things at least 3 times a day because there is no a good control of inventory. All these issues represent waste of

money and time, valuable time and money that can be used to improve quality service for customers. These issues can be optimized using better software for the management of the company.

There are two proposals to change the management software as the Table 2.8 shows.

Table 2.8 – Comparison table between proposed management software

	Abarrotes punto de venta (Actual management software)	EasyPOS (proposal 1)	RestBar software (proposal 2)
1	2	3	4
Basic configuration; order machine, billing, cash register.	√	√	√
Quick cash register. The customer pays before consuming their food.	√	√	√
Inventories, take the cost of your dishes when registering the entrances and exits to your warehouse, it affects inventories automatically by prescription each one that sells a product and it carries catalogs with handling of different categories and units.	X	√	√
Kitchen, automatically print the commands of your customers in kitchen and / or bar.	X	√	√
1	2	3	4
Administrative, productivity, inventory and accounting reports.	√1	√	√
Handling promotions, combos, happy hours and discounts.	X	√	√
Automatic backup, review and repair of databases.	√	√2	√
Multi-store and multi-box.	X	√	√
Built-in monitoring watch for employees assistances	X	X	√
Control panel. Control your business from wherever you are and with any device with internet access, even if you have branches.	X	√	√
Ease of handling and training.	X	X	√
Price	N/A	\$8,950.00	

Nomenclature: X = the system doesn't have this characteristic. √ = the system has this characteristic.

√1 = the system has this characteristic but it has few reports. √2 = the system has backup characteristic but it is not automatic.

The table 2.8 shows the comparison of the different characteristics from three management softwares, the first software (Abarrotes punto de venta) is the actual used software in 'Palua Café y Artesanías'. Compared with the other two software this is missing a lot of characteristics, the most complete software is the 'Rest Bar software', which has all of the enlisted attributes but it is the most expensive one. The 'EasyPOS' software has three less characteristics than the 'RestBar software', but according to the managers of 'Palua Café y Artesanías' the 'Ease of handling and training' attribute is not relevant because the

‘EasyPOS’ company has a support center and the managers of ‘Palua Café y Artesanías’ say that they can handle the training, the ‘Built-in monitoring watch for employees assistances’ attribute is not relevant because the ‘Palua Café y Artesanías’ is not interested on that, just the ‘Automatic backup, review and repair of databases’ seems to be one critic characteristic, however the ‘EasyPOS’ has this attribute but it is not automatic, the user has to do manually the backups. The ‘EasyPOS’ is cheaper than the ‘RestBar software’, so the most suitable option is the ‘EasyPOS’.

For the sixth issue (Maintaining speed and quality of service during busy times), it seems appropriate to do a flow process and administrative analysis, taking care of every part of the process since the customer arrives, then the waiter/waitress give the menu, then takes the order, after in the kitchen it is important to take care of the details in the food/drinks preparing process. There is a big probability to find wastes of time in the food/drinks preparing process, so the goal of this analysis is to optimize the process for not to have wastes of time. For improving this analysis the proposed table is the one at Appendix 4.

To analyze any process, the first step is to understand every detail from it, and for doing that, the Flow process and administrative analysis is an excellent tool. With the proposed table (Appendix 4) for the Flow process and administrative analysis has to focus on the food and drinks preparation, and it has to evaluate different employees preparing the same stuff so it will help to detect issues between employees preparation.

The seventh issue (Visually attractive dining area), seems better to discuss with an interior designer. The seventh issue (Overall satisfaction with dining experience) is not so specific, because as it says ‘overall’, it can involve a lot of different aspects. So, it was proposed to implement a ‘secret customer’. The secret customer is an expert that visits the company and is evaluating every aspect from the experience, but nobody knows about that, that’s why is secret. This seems to be an effective solution when trying to evaluate details in real time.

According to the ideas and objectives that the owners showed and the ones detected during the elaboration of the present work, the mission, vision, goals and values of the company were created:

Goals

- Make Palua an easily reproducible commercial firm
- To provide a total experience to our customers, taking care of our employees, customers and suppliers.
- Increase the income obtained with the purpose of expanding our business
- Respond to the needs of customers in a short period of time, fully guaranteeing their satisfaction in each of our actions and products.

Mission

Provide products and services of excellence, arousing the taste for coffee, art and culture of Mexico.

Vision

Positioning us as the best cafe establishment in Huamantla, recognized in the state of Tlaxcala, offering services and products of excellence, arousing the taste for coffee, art and culture of Mexico.

Values

-Quality. Doing well at the first time

-Responsibility. Carry out our tasks with diligence, seriousness and prudence from the beginning to the end

-Respect. Among all the members of the Palua team, towards our customers, suppliers and the environment.

-Commitment. With our country, with customers, with ourselves.

-Continues improvement. Adapt to the changing needs of our clients, and providing the organization with a competitive advantage in the market.

-Fair Trade. Promoting a win-win culture with our suppliers, focusing on our craft suppliers.

CONCLUSION

There are many research works using different models to measure and improve the quality system in any kind of organization. In the case of the restaurant industry the most suitable used in many study cases is the SERVQUAL model, this is focused in five essential elements to keep a happy customer; tangibles, reliability, responsiveness, assurance, empathy. So it makes the service quality a more complex element but easier to measure, which results in a better decision making.

The Servqual is a powerful model to get useful information from the customers experience in the Restaurant industry, this model can be combined with some other quality service models to make more specific analysis but to make a first quality service analysis it is enough just with Servqual. The most important is the company to implement the proposals according to the issues founded in this study work. After the first implementation, it is important to continue improving all the time, trying different tools and technology always focusing on the customer.

The information used was helpful to find the opportunity areas in the quality service of the company. There were no troubles applying the model, just it took a lot of time to apply the surveys, the main problem was that the surveys were too long and there were two different surveys to apply (perceptions and expectations), so it took a long time to apply all the surveys.

The statistics software SPSS and Microsoft Excel were enough to analyze the data through factor analysis, standard deviation calculation, arithmetic mean between expectations and perceptions of the

clients. There were no troubles to execute the analysis with the SPSS software, which actually is easy and have enough tools to the user, with this software, there were obtained tables and data, which later with the Microsoft Excel software were translated into graphics to the information to be easier to read.

In the Table 2.7 are the problems that represent the 20% (the main problems according to the pareto diagram). These are 7 items and represent the defects that occur most frequently, the most common causes of defects or the most frequent causes of customer complaints, so this help the company to take attention and focus on solving the problems that represent a big change for the improvement of itself.

The information used was really helpful to find the opportunity areas in the quality service of the company. There were no troubles applying the model, just it took a lot of time to apply the surveys, the main problem was that the surveys were too long and that there were two different surveys to apply (perceptions and expectations), the result was a long time to apply all the surveys. The statistics software SPSS was enough to analyze the data and Excel helped a lot to make the graphics in order to make the information easier to read.

As the results showed in this study work, the company “Palua Café y Artesanías” doesn’t have many issues. Making the comparison between expectations and perceptions, more than 80% of the questions were positive answers, just four items finished in negative perception. So the perceptions were higher than the expectations. Anyway there are always points to improve and there are tools to keep doing a good job.

REFERENCES

- Ali, F. (2015). Service quality as a determinant of customer satisfaction and resulting behavioural intentions: A SEM approach towards Malaysian resort hotels. *63(1)*. Universiti Teknologi Malaysia.
- Andrey Sergeevich Mikhaylov, I. S. (2015, February). The Servqual model in measuring service quality of public transportation: evidence from Russia. *16(144)*. Russia: Baltic Federal University.
- Aragón, I. A. (January 2014). Gurús de la Calidad. (1).
- Archakova, A. (2013). Service Quality and Customer Satisfaction. Case study: Company X. Saimaa University of Applied Sciences.
- Brun, A. (2010). Service quality and customer satisfaction in the hotel industry. Politecnico di Milano.
- Carlzon, J. (1991). *El momento de la verdad*. México: Diaz de Santos.
- Christine T. Ennew, G. V. (1991). Importance-Performance Analysis and the Measurement of Service Quality. University of Nottingham, UK.
- Christou Loizos, H. L. (2005). A Customer's Expectation and Perception of Hotel Service Quality in Cyprus. *Issue 2 Hospitality Review Volume 23/Issue 2*.
- Conway, S. S. (2006). Customer satisfaction in the restaurant industry: an examination of the transaction-specific model. *20(1)*. Pennsylvania, USA: Journal of Services Marketing.
- Disney Institute. (2005). *Disney y el arte del servicio al cliente*. México: Panorama.
- Dodds, W. B. (1991). Effects of price, brand, and store information on buyers' product evaluations. *Journal of Marketing Research*, 307-319.
- E. Hernández Cruz, E. N. (2001). Sistema de cálculo de indicadores para el mantenimiento. La Habana, Cuba: Instituto Superior Politécnico José Antonio Echeverría.
- Estefany Ñustez Cuartas, D. E. (2015). Propuesta para la evaluación del desempeño de los funcionarios de la empresa de aseo de Pereira S.A. E.S.P Mediante la aplicación de la técnica del cliente secreto. Pereira, Colombia: Universidad Tecnológica de Pereira.
- Fan-Yun Pai, T.-M. Y.-Y. (2016). *Classifying restaurant service quality attributes by using Kano model and IPA approach*, DOI: 10.1080/14783363.2016.1184082. Retrieved 03 20, 2017, from <http://dx.doi.org/10.1080/14783363.2016.1184082>
- Gummesson, E. (2014). Productivity, quality and relationship marketing in service operations. *26(5)*. Esmerald.
- Guzmán López, A., & Cárcamo Solís, M. d. (2014, May 03). *La evaluación de la calidad en el servicio: caso de estudio "Restaurant Familiar Los Fresnos"*. Guanajuato, Universidad de Guanajuato, México: Redalyc. Retrieved 03 8, 2017, from Redalyc.org.
- Gwo-Hshiung Tzeng, H.-F. C. (2011). Applying Importance-Performance Analysis as a Service Quality Measure in Food Service Industry. *Journal of Technology Management & Innovation*, Volume 6, Issue 3.
- Huiying Li, Q. Y. (2013). Determinants of Customer Satisfaction in the Hotel Industry: An Application of Online Review Analysis. *18(7)*. Routledge.

- Joaristi, L. L. (2014). Procedimiento para elaborar la tabla de valores de las áreas de la distribución normal de la hoja de cálculo calc de open office. Universidad del País Vasco Euskal Herriko Unibertsitatea.
- Kisang Ryu, H. H. (2009). Influence of the Quality of Food, Service, and Physical Environment on Customer Satisfaction and Behavioral Intention in Quick-Casual Restaurants: Moderating Role of Perceived Price. *Journal of Hospitality & Tourism Research*.
- L., P. A. (1985). A conceptual model of service and it's implications for future research. *Journal of Marketing*, Vol 49, pp 41-50.
- Makeeva, E. (2010). Service quality and customer satisfaction case: Restel Hotels in Imatra and Lappeenranta. Saimaa University of Applied Sciences, Imatra.
- Martínez, J. V. (2006). La calidad en los servicios, una propuesta de concepto integral. Veracruz, México, Veracruz, México: Universidad Veracruzana.
- P. Erto & A. Vanacore. (2002). A probabilistic Approach to measure Hotel Service Quality. Total Quality Management. *Total quality management*, 165-174.
- Pinelo, I. M. (2015). Documentación y optimización de procesos como herramienta de mejora en una empresa de transporte de pasajeros. Ciudad de México, Méxio: Universidad Nacional Autonoma de México.
- Prybutok, H. Q. (2009). Service quality, customer satisfaction, and behavioral intentions in fast-food restaurants. 1(1). Denton, Texas, USA: Emerald.
- Robertson, P. (2004). The effect of airline service quality on passengers behavior intentions: A Korean case study. *Journal of Airline Transport Management*, 435-439.
- Ryu, H. H. (2009). The Roles of the Physical Environment, Price Perception, and Customer Satisfaction in Determining Customer Loyalty in the Restaurant Industry.
- Secretaría de Turismo de México. (2014, 10). *Secretaría de Turismo*. Retrieved 05 15, 2017, from Distintivo H: <http://www.sectur.gob.mx/gobmx/tramites-y-servicios/certificacion-turistica/distintivo-h/>
- Suzana Markovic, J. K. (2013). Measuring service quality in city restaurant settings using DINESERV scale. Croatia: Faculty of Tourism and Hospitality Management in Opatija.
- Tsai, J.-B. C.-H. (2013). Developing a service quality evaluation model for luxurious restaurants in international hotel chains. 24(10). Taichung , Taiwan, Republic of China: Routledge.
- Zeithaml, V. A. (1981). How consumer evaluation processes differ between goods and services. *Marketing of services proceedings series*, 186-190.

Perceptions survey

Palua Café y Artesanías

En busca de la mejora continua, Palua Café y Artesanías está llevando a cabo un estudio de calidad en el servicio al cliente, para esto necesitamos la colaboración de nuestros clientes contestando la presente encuesta. Tu opinión es muy importante para nosotros.



Edad: _____ Género: Masculino / Femenino Ocupación: _____

Procedencia: _____

¿Es la primera vez que visitas Palua? Si / No. Número de visitas en el último mes... 1 vez / 2 o más

Por favor contesta las siguientes preguntas tomando en cuenta esta escala de medición (cualquier duda puedes consultarla con la persona que te está proporcionando esta encuesta):

1 Totalmente en desacuerdo, 2 En desacuerdo, 3 Algo en desacuerdo, 4 Indiferente, 5 Algo de acuerdo, 6 De acuerdo, 7 Totalmente de acuerdo.

El café...	Calificación
1) Tiene instalaciones exteriores y un área de estacionamiento visualmente atractivas.	
2) Tiene un área de comedor visualmente atractiva.	
3) Tiene personal que luce limpio, bien cuidado y propiamente vestido.	
4) Tiene una decoración acorde con su imagen y nivel de precio.	
5) Tiene una carta-menú que es fácil de leer.	
6) Tiene un menú visualmente atractivo que refleja la imagen del restaurante.	
7) Tiene un área de comedor que es cómoda y que facilita el moverse alrededor de ella.	
8) Tiene baños que son muy limpios.	
9) Tiene áreas de comedores que son muy limpias.	
10) Tiene asientos cómodos en el área de comedores.	
11) Le sirve la comida/bebida en el tiempo prometido.	
12) Corrige rápidamente todo lo que está mal.	
13) Es confiable y consistente.	
14) Proporciona al cliente la cuenta/facturación precisa.	
15) Sirve las comidas/bebidas exactamente como fueron ordenadas	
16) Durante los horarios más concurridos posee empleados que se ayudan unos a otros para mantener la velocidad y la calidad del servicio.	
17) Proporciona un servicio oportuno y rápido.	
18) Brinda un esfuerzo extra para manejar sus peticiones especiales.	
19) Tiene empleados que pueden responder a sus preguntas de forma completa.	
20) Lo hace sentir cómodo y confiado en su trato con el personal.	
21) Tiene personal que sea capaz y esté dispuesto a darle información sobre los elementos de la carta menú, ingredientes y métodos de preparación de los platillos/bebidas.	
22) Lo hace sentir personalmente seguro respecto a la preparación higiénica de los alimentos.	
23) Tiene personal que parecen bien capacitado, competente y experimentado.	
24) Parece dar a sus empleados el apoyo para que puedan realizar bien su trabajo.	
25) Tiene empleados que son sensibles a sus necesidades y deseos, en vez de seguir las políticas y procedimientos estándar.	
26) Lo hace sentir especial como cliente brindándole una atención personalizada.	
27) Anticipa sus necesidades individuales y deseos.	
28) Tiene empleados que son comprensivos y que siempre verifican si algo está mal.	
29) Parece tener siempre en cuenta los intereses de los clientes.	
30) Los alimentos y bebidas tienen precios elevados (relación alimentos/bebidas vs. precio pagado).	
31) Es un café en donde se paga más de lo previsto.	
32) Es aquel donde, en general, los comensales están completamente satisfechos con la experiencia culinaria.	
33) Es aquel café donde, sin duda, el comensal regresaría en el futuro.	
34) Es aquel café que el comensal recomendaría a otros.	
35) Es aquel café donde teniendo en cuenta el tipo de negocio la calidad del servicio es excelente.	

Appendix 2. Training registration matrix

[illegible]

PDCA PLANNING WORKSHEET														
Part / Series / Subject										Date Last Modified:				
Team Members: (<i>Innovation Leader</i>)														

Status / Legend

= Behind

= O.K.

= Completed

PROBLEM STATEMENT:

Plant:			Department:			Completed by:								
PLAN			DO			CHECK			MEASUREMENT (CHECK)			ACTIONS EFFECTIVE? (see Note below)		
Status	Item No.	Initiative	Task	Responsibility	Schedule Task Timing			Reviewed by:		Base	Projected Improvement Time/\$	Actual	Yes	No
					DURATION	START Date	FINISH Date	Who	Date					





Flow process and administrative analysis

Page of

Location:			Summary			
Activity:			Event	Present	Proposed	Savings
Date:			Operation			
Operation:		Analyst:	Transport			
Circle appropriate Method and Type			Delay			
Method:		Present Proposed	Inspection			
Type:		Worker Material Machine	Storage			
Remarks:			Time (min)			
			Distance (meters)			
			Cost			
Event Description	Symbol	Time (minutes)	Distance (meters)	Method Recommendation		
	○⇨□D▽					
	○⇨□D▽					
	○⇨□D▽					
	○⇨□D▽					
	○⇨□D▽					
	○⇨□D▽					
	○⇨□D▽					
	○⇨□D▽					
	○⇨□D▽					
	○⇨□D▽					
	○⇨□D▽					

Nomenclatur ○ operations, ⇨ storage, □ transports, D nspection, ▽ aiting.

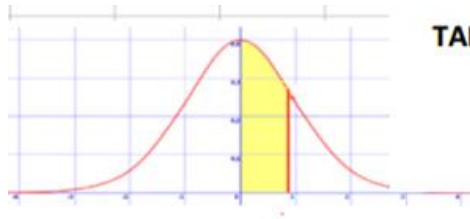


TABLA DE ÁREAS BAJO LA DISTRIBUCIÓN NORMAL

ÁREA ENTRE 0 Y UN VALOR DE Z

z	0,01	0,02	0,03	0,04	0,05	0,06	0,07	0,08	0,09
0,00	0,0040	0,0080	0,0120	0,0160	0,0199	0,0239	0,0279	0,0319	0,0359
0,10	0,0438	0,0478	0,0517	0,0557	0,0596	0,0636	0,0675	0,0714	0,0753
0,20	0,0832	0,0871	0,0910	0,0948	0,0987	0,1026	0,1064	0,1103	0,1141
0,30	0,1217	0,1255	0,1293	0,1331	0,1368	0,1406	0,1443	0,1480	0,1517
0,40	0,1591	0,1628	0,1664	0,1700	0,1736	0,1772	0,1808	0,1844	0,1879
0,50	0,1950	0,1985	0,2019	0,2054	0,2088	0,2123	0,2157	0,2190	0,2224
0,60	0,2291	0,2324	0,2357	0,2389	0,2422	0,2454	0,2486	0,2517	0,2549
0,70	0,2611	0,2642	0,2673	0,2704	0,2734	0,2764	0,2794	0,2823	0,2852
0,80	0,2910	0,2939	0,2967	0,2995	0,3023	0,3051	0,3078	0,3106	0,3133
0,90	0,3186	0,3212	0,3238	0,3264	0,3289	0,3315	0,3340	0,3365	0,3389
1,00	0,3438	0,3461	0,3485	0,3508	0,3531	0,3554	0,3577	0,3599	0,3621
1,10	0,3665	0,3686	0,3708	0,3729	0,3749	0,3770	0,3790	0,3810	0,3830
1,20	0,3869	0,3888	0,3907	0,3925	0,3944	0,3962	0,3980	0,3997	0,4015
1,30	0,4049	0,4066	0,4082	0,4099	0,4115	0,4131	0,4147	0,4162	0,4177
1,40	0,4207	0,4222	0,4236	0,4251	0,4265	0,4279	0,4292	0,4306	0,4319
1,50	0,4345	0,4357	0,4370	0,4382	0,4394	0,4406	0,4418	0,4429	0,4441
1,60	0,4463	0,4474	0,4484	0,4495	0,4505	0,4515	0,4525	0,4535	0,4545
1,70	0,4564	0,4573	0,4582	0,4591	0,4599	0,4608	0,4616	0,4625	0,4633
1,80	0,4649	0,4656	0,4664	0,4671	0,4678	0,4686	0,4693	0,4699	0,4706
1,90	0,4719	0,4726	0,4732	0,4738	0,4744	0,4750	0,4756	0,4761	0,4767
2,00	0,4778	0,4783	0,4788	0,4793	0,4798	0,4803	0,4808	0,4812	0,4817
2,10	0,4826	0,4830	0,4834	0,4838	0,4842	0,4846	0,4850	0,4854	0,4857
2,20	0,4864	0,4868	0,4871	0,4875	0,4878	0,4881	0,4884	0,4887	0,4890
2,30	0,4896	0,4898	0,4901	0,4904	0,4906	0,4909	0,4911	0,4913	0,4916
2,40	0,4920	0,4922	0,4925	0,4927	0,4929	0,4931	0,4932	0,4934	0,4936
2,50	0,4940	0,4941	0,4943	0,4945	0,4946	0,4948	0,4949	0,4951	0,4952
2,60	0,4955	0,4956	0,4957	0,4959	0,4960	0,4961	0,4962	0,4963	0,4964
2,70	0,4966	0,4967	0,4968	0,4969	0,4970	0,4971	0,4972	0,4973	0,4974
2,80	0,4975	0,4976	0,4977	0,4977	0,4978	0,4979	0,4979	0,4980	0,4981