



## QUALITY OF THE SERVICE AS A COMPETITIVE ADVANTAGE, COMPARATIVE STUDY OF PARCEL COMPANIES

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**Abstract:** This research describes, compares and analyzes the competitive advantages generated by the quality of the service in parcel companies nowadays. Therefore, the main goal of this comparative study is to determine the factors by which the quality of the service creates a competitive advantage between these companies, taking as a sample two of the main parcel companies in Los Mochis, Sinaloa. It should be noted that these companies are currently booming, due to the rise of online shopping. In addition, customers seek speed, price and care of the merchandise in their deliveries. The study was carried out based on the methodology of case study, which uses experience for the transmission of knowledge such as the opinion of people about two companies in particular. This study was developed with the characteristics of a descriptive research, with a non-experimental design; as well, the quantitative approach was used since it was intended to describe and to know different opinions and perspectives from people towards the quality of the service. The information was collected by applying a survey in which the opinion of the people regarding the quality of the service provided by both companies was gathered through a system of direct well-ordered questions. According to the results obtained thanks to the application of the instrument, the hypothesis proposed in this study is accepted, which establishes that the competitive advantage generated by the quality of service of the Paquetexpress parcel company is superior to that of the Estafeta parcel company.

**keywords:** Service, Competitive Advantage, Quality of the service.

## CALIDAD DEL SERVICIO COMO VENTAJA COMPETITIVA, ESTUDIO COMPARATIVO DE EMPRESAS DE PAQUETERÍA

**Resumen:** El presente trabajo de investigación describe, compara y analiza las ventajas competitivas que genera la calidad en el servicio en las empresas de paquetería en la actualidad. Por ello, el objetivo de este estudio comparativo consiste en determinar los factores por los cuales la calidad en el servicio crea una ventaja competitiva entre estas empresas; como muestra han sido seleccionadas dos de las principales empresas de paquetería de Los Mochis (Sinaloa, México). Cabe resaltar que en la actualidad estas empresas tienen mayor auge dado el alza de las compras en línea. Además, a razón de que los clientes buscan rapidez, precio y cuidado de la mercancía en las entregas. La metodología de este proyecto es el estudio de caso, que se basa en la experiencia para construir conocimiento; en este proceso, sirve de insumo la opinión que tienen las personas sobre las dos empresas. El estudio se desarrolló con las características de una investigación de tipo descriptivo, con un diseño no experimental; asimismo, se utilizó el enfoque cuantitativo, ya que se pretendía –a través de la recolección de información con el instrumento de la encuesta– conocer la opinión de las personas en cuanto a la calidad en el servicio que brindan ambas empresas, a través de un sistema de preguntas estructuradas y directas. Con base en los resultados obtenidos con la aplicación del instrumento, se concluye que se acepta la hipótesis planteada en este estudio, que establece que la ventaja competitiva que genera la calidad del servicio de la empresa de paquetería Paquetexpress es superior a la de la empresa de paquetería Estafeta.

**Palabras clave:** Servicio, ventaja competitiva, calidad en el servicio.

### I INTRODUCTION

The quality of the service is the main value that must be highlighted in a company that is for public service, this approach includes many aspects that must be taken into account; working environment, strategies, attitudes required from employees, product conditions, regulations, among many others. All this enclose the quality that a company offers to its customers along with its progress and productivity to keep running.

For this framework, Mallar (2010) explains that the concept of quality stopped being an inseparable asset of the product or service, to be integrated as a value into customer satisfaction and expectations. This is how customer satisfaction requires emphasizing into continuous improvement and the quality of all processes, so that the final customers are gratified and meet the expectations they have about the product or service they receive.

In the current scenario of the world's economy, as a result of the globalization phenomena and market competitiveness, quality management has become one of the most relevant situations for the success of any organization or company at a global level, in both, the industrial and the service fields. Other authors point out that it is associated to a set of principles, practices and techniques related to the objective of improving quality and promoting the competitiveness of companies, which allows, from a comprehensive perspective, to achieve customer satisfaction (Hernández et al., 2018).

According to Rubalcaba (2013), the region of Latin America and the Caribbean (LAC) “is one of the most service-oriented regions in the developing world, with services covering 62% of added value”. Analysis of these data confirm the importance of the service sector for the economies of leading countries and developing nations, therefore, the application of strategies leading to the achievement of competitive advantages in this segment is particularly important for LAC and is right there where quality management has an essential role.

Companies have a competitive advantage when they are better positioned than rivals to secure customers and defend themselves against competitive forces. Many sources guaranteeing competitive advantages can be pointed out, such as: manufacturing the product with the highest quality, providing superior service to customers, achieving lower costs than rivals, having a better geographical location, designing a product that performs better than competing brands (Hitt et al., 2003).

Therefore, the main goal of this research is to determine the factors by which the quality of the service creates a competitive advantage between two of the main parcel delivery companies in Los Mochis, Sinaloa; due to this, we want to carry out a comparative study, focused on answering some unknowns about this subject. Thus, it is expected to get to distinguish the ways of functioning that it uses, the strategies that it manages and the service that it offers, from a clearer perspective which is the customer experience, as the main input factor of the project.

This research process will help to identify and analyze the quality of the service as a competitive advantage; in addition, we will discern how these actions help a certain company to stand out over its competitor and which strategies were implemented. This work is divided into six sections including this Introduction. The second section refers to the theoretical framework, composed by theories and models about the quality in service and the competitiveness of organizations. After that, the third section describes the study case and the fourth one addresses the methodology defining methods and applied techniques. Next, the fifth section includes the research results and discussion, and a reflection about the validation of the whole process. The final section is constituted by the conclusions.

## **2 THEORETICAL FRAMEWORK**

In this section we will analyze the central topics of this research, dividing it between the quality in the service and competitive advantage.

### **2.1 Quality**

In the list of priorities designed by Juran (1964), quality improvement ranks the first place. According to the research topic “Quality in service as a competitive advantage in companies”, some previous studies are analyzed to take it as a basis for this research and promotes handing over the control to the employees within the organization, allowing the responsibility of their own control in order to encourage the empowerment of them. Also, promotes training workers in the research area so they gather information and make their own analysis, in that way they will be allowed to make decisions based on facts.

Quality is considered the continuous search for excellence, it is a process that is focused on man; hence, products and services are built to satisfy the desires, expectations and needs of the human being. Shewhart (1931) declares that “since the time of Aristotle there has been a certain tendency to identify the quality of

an object with its goodness". However, Latzko (1988) points out this definition as a difficulty in which refers to indefinable concepts such as "quality" and "goodness". These terms can hardly be described, because for each person the meaning may vary, in other words, they are subjective.

Meanwhile, some authors refer to quality simply as "an absence in inefficiency" (Juran, 1994). Other ones state it as the satisfaction of "customer needs and expectations in a reasonable way" (Berry, 1995). Harrington (1998) argues that quality is something personal and each person defines it. Feigenbaum (1989), initially defined quality as "the global component of the characteristics of marketing, engineering and production, that form products and services which at the moment of using them, they satisfy customers expectations" (Gutiérrez 1991). He adds this to his definition:

A total quality system is an operational work structure that is agreed upon throughout the organization and the shop, documented based on procedures that are integrated, such as, technical and administrative that are effective in guiding the coordinated actions of the workforce, machines, the company and the shops information in the best and most practical ways that ensure customer satisfaction in relation to quality and economic costs of quality. (Feigenbaum, 1989)

For the Royal Spanish Academy (2001), "It defines quality as each of the circumstances or natural or acquired characters, with which people or things are distinguished", also considers it as a property or set of properties inherent to a thing, which allows it to be appreciated as the same or better or worse than the rest of its kind". Therefore, the quality is considered to be seen from a different perspective by each person since everyone has different needs to be fulfilled.

## 2.2 Service

Citing to Kotler (1997), Duque (2005) defines service as "any activity or benefit offered by one party to another; they are essentially intangible and do not give rise to ownership of anything", which means, it is everything that is visible to the customer and that produces added value, this research aims to capture the precise moment in which there is an increase in its satisfaction.

The authors Almonte & Carbajal (2017) highlight how services have been for many years the main source of growth in developed countries and currently also in poor or developing countries due to the proportion corresponding to the gross domestic product (GDP). In addition, Rubalcaba (2013) declares that "developed economies have been migrating towards services rapidly and continuously, and nowadays they are the most focused on services economies around the world, generating 75-80% of the added value in services". This same author has also exposed that "today, the service's economy provides more than a half of the employment and added value in most countries" (Rubalcaba, 2013). These mentions confirm the fact of the predominance of this sector for the world's economy and in particular for nations.

The service is defined as a collection of activities, acts or isolated events or a sequence of linked acts, with a specific duration and location, which are carried out thanks to human and material resources, made available to an individual client or a corporate, based on processes, procedures and behaviors that have an economic value and, therefore, are a factor of differentiation that provide benefits or satisfaction (Albrecht, 1994a).

Then, the service is taken as the series of attitudes that determine behaviors to satisfy the customers in relation to their interests, expectations, needs and desires; they originate a series of processes that serve to fulfill a need or to perform different functions that the client does not want to do for itself and that it is willing

to pay someone to do it. Subsequently, this person analyzes how to satisfy it by searching timing, place, team and elements needed.

In other case, service is defined as “all work done by one person in benefit of another” (Albrecht, 1994b). On the other hand, Lobos (1995), considers the service as “those activities that are carried out to satisfy the expectation of a client. Or, if you prefer, they are all the aspects, attitudes and information that generates an expansion of the client’s capacity to understand the value of something fundamental”.

As a complement, Berry (1996) defines the service as “an action, a realization, an effort, the tangible or intangible nature of what is purchased; it is what at the end determines its classification and recognizes it as a product or service”; using other words, by the same author: “a process is a series of activities that aimed for serving and satisfying the customer’s desire; products are objects, services are accomplishments”.

Its production may or may not be linked to a real product. As Albrecht (1994b) mentions, you can say that a service consists of actions that people perform to satisfy a need, but this is intangible since you pay to enjoy it in the moment, as Berry (1996) mentioned.

Thus, the service can be understood as the work, benefits or activities that are obtained from other people or companies to satisfy the needs of the consumers. It is related to the object of study of this research, which are two parcel companies, whose main activity is the service not linked to a physical product, but rather to sell the service as a substantial activity.

### **2.3 Quality of the service**

Gutiérrez (2010) mentions the different theories related to quality, continuous improvement and customer service. His sources are taken from the contributions of the main mentors of quality, beginning with Deming (1994) who demonstrated the importance of statistical quality control through the Total Quality concept, it was based on the application of the Deming cycle known as PDCA, acronym in Spanish for plan, develop, control and act. Nowadays, when the cycle is applied this quality’s philosophy continues being essential in the permanent improvement of the processes. Later, Juran (1994) trusted on his trilogy named: Quality Planning, Quality Control and Quality Improvement, keywords which were used to find uninterrupted improvement.

The Japanese engineer and professor Kaoru Ishikawa had already penetrated the industry to strengthen productivity. Ishikawa based his studies on the seven technical and statistical tools for problem analysis, where Pareto charts were identified, cause effect diagrams, stratifications, verification sheets, histograms, scatter diagrams, graphs and control charts. Nowadays, all these tools are essential for the implementation of a better statistical control of quality based on the importance of measuring the results (Ishikawa, 1986).

Maintaining the philosophy of Philip B. Crosby, his zero defects and doing it right the first time, where both elements are integrated into the 14 step quality improvement process, and the 4 principles of quality, it is finally identified in 1960, the first theory focused on quality. It is the Total Quality Theory, which is not considered a statistical measurement tool nor a quality control process, but rather a culture of quality and organizational change.

By 1960, Kaizen suggests that quality variation has a direct impact on costs and people (Baird, 2015), suggesting that the culture of quality must invade people first, so later it can impact into processes, Kaizen adapts the Deming cycle and applies it in the EHRA, acronym in Spanish for standardize, do, review and act, for service purposes. The Kaizen concept is important, since people are in charge of providing quality services in organizations, therefore, some concepts related to quality service are described next.

In consonance with Molina (2014), the quality of service continues in complying with the points of view assumed by our clients about how good a service is and if it satisfies specific needs. When talking about quality of the service, it must be taken into account that its study is diverse, therefore, one way to understand this concept, in its fullness, is pondering the ideas that it supports.

For Ordóñez & Zaldumbide (2020), customer service is the care taken to offer customer satisfaction, whether it is a user or consumer when purchasing a product or service, all kinds of companies seek to guarantee their economic stability using this strategy that allows them to achieve the objectives set. Most of these companies that look for the quality of good service to be more competitive, adopt this tactical element and make it their ally (Prieto et al., 2016).

The competitive advantage is obtained when an exponential advantage is achieved over the competitors; once something specific is modified within the service process of the organizations, these must create clear objectives, operations and strategies to build a sustainable competitive advantage. The corporate identity and culture, and the values fostered in employees, must be aligned with these objectives. Even though this is difficult, the most challenging thing is to do it year after year, in order to sustain it over time. But if this is achieved, aforementioned advantage will grow in the organization, and it will be very difficult for its competitors to achieve it (Arellano, 2017).

Morales & Hernández (2004) mention that the service cannot homogenize customer expectations, since each customer is different and so are their needs, which is why inflexible procedures cannot be imposed to keep customers satisfied. As you can see in the contributions of the authors, they agree that it is the customer's perception what allows us to identify the quality of the products or services. So, it is necessary to measure in some way the aspects that must be tested and to observe the quality perceived. In any way, the quality of the service is more difficult to evaluate than the one of the products, due to the particular characteristics that services have such as: intangibility, diversity and attachment.

As can be seen, the definition of customer service has evolved over the years, several authors relate this term from different perspectives. As a previous step to the next overview, Arellano (2017) recommends analyzing the relationship between competitive advantage and service quality for large market organizations where the customer is paramount.

## **2.4 Competitive advantage**

In agreement with Michael Porter (1985), a company can be considered with competitive advantages if its performance and profitability are above the average profitability of the industrial sector in which it operates. With globalization, the quality of the service has become an essential requirement to compete between industrial and commercial organizations anywhere in the world, since the impact that has on results is essential

for their development and subsistence. In this way, the quality of the service becomes a strategic element that confers a competitive advantage to those companies that try to achieve, maintain and constantly innovate it (Arellano, 2017).

Competitor analysis provides reliable information to the organization for decision making. From this, we could say that competitive advantage is defined as the set of skills, technologies, resources, and capabilities that management can coordinate and invest to achieve greater values and benefits for the client than those that are achieved (Alallaq et al., 2020).

Many authors have investigated the subject of customer service, with the aim of diagnosing, evaluating or designing it in the context of an organization or as a theoretical effort. Among those who stand out for their contributions, appear these researchers: Acevedo (2010), Estrada et al. (2006), Herrera & Pérez (2013) and Sarmiento et al. (2014). Each of them considers different elements, in such a way that the theoretical elements are not integrated into a methodology that contributes to detect deficiencies and make decisions that allow the company to keep its current customers and to search for new ones (Herrera et al., 2021).

A company has a competitive advantage when it has a unique and sustainable advantage over its competitors; this advantage allows it to obtain better results and, therefore, have a superior competitive position in the market (Pereira et al., 2018).

The aforementioned authors associate competitive advantage with customer loyalty and the elements that become different from competitors; with this, the sustainability of companies is achieved over time.

## **2.5 Michael Porter's Theory of Competitive Advantage**

Porter (2015) has defined three strategies that are appropriate to apply when beginning to use the strategic thinking: costs leadership, differentiation and focus.

- **Cost leadership:** Organizations seek to achieve the lowest production and distribution costs to be able to sell at more affordable prices than their competitors and achieve a greater presence in the market. The problem projected by this strategy is that other companies will always come out with even lower prices, which can affect the company that bets its future only on the costs.

- **Differentiation:** Organizations focus on accomplishing better results based on some important advantage that is appreciated by the majority of the market. The company should focus on those strengths that support differentiation, offering customers unique products and/or services in the market.

- **Focus:** Organizations focus on one or more exclusive market segments, the company gets to know these segments in depth, and seeks to be a cost leader or differentiation within the targeted segment. It is the task of each organization to identify the elements that will be part of the strategy, as well as to recognize the limitations that may arise and that prevent the fulfillment of its goals and objectives (Kotler & Lane, 2006).

Finally, Porter (1993) stated that the competitiveness of a nation and therefore of its industrial and economic production, depends on its ability to innovate and improve. Innovation activities are indeed, together with human capital, one of the main factors determining the competitive advantages of advanced industrial economies. In Porter's words, the only sustainable competitive advantage is permanent innovation.



### 3 CASE STUDY DESCRIPTION

The parcel companies' subjects of study for this investigation are Paquetexpress and Estafeta. Both companies enjoy prestige and brand positioning in the local market. In order to present both business organizations and limit the research, background, history, mission and values of each one are described below.

#### 3.1 *Paquetexpress*

Paquetexpress is a messenger service and parcel company, founded in Sinaloa in 1986, with national coverage, 500 employees, 85 branches and a fleet of more than 650 units, specialized in logistics. It provides service throughout Mexico and delivers to more than 200 countries around the world. The company has extensive experience in different industries such as food, consumer goods, textile, automotive, e-commerce, manufacturing and electronics, to name a few. Its growth has been sustained by its high customer retention rate, the result of putting them as the center of its operations (Paquetexpress, n.d.).

Paquetexpress company carried out alliances with Averitt Express and IBC Couriers. With the first company, it seeks to cover the eastern part of the United States; at the same time, this firm has alliances to cover the rest of the North American territory, including Canada. With IBC Couriers the approach was made to cover the border with the United States, plus the connection of parcel and cargo services with the rest of the world.

The company has computerized all of its processes and operations, as well as its services, to guarantee documentation, control, traceability and security. As the main effect, they have reduced irregularities to a minimum. Exploring new ways to optimize its operations, in 2019 Paquetexpress detected the need to integrate and evolve its sales, customer service, and marketing processes on a platform and consequently achieve orderliness among the different departments of the company that interact with the mentioned processes (Paquetexpress, n.d.).

#### 3.2 *Estafeta*

Estafeta is a logistics company with the following service divisions: LTL consolidated cargo, messaging, parcel and air cargo, logistics solutions and international services. It is a Mexican company with coverage of 95% of the Mexican territory, 220 countries and territories. Founded in Mexico on August 8, 1979, by Gerd Grimm, a German entrepreneur who came from the international sea shipping and distribution segment. Grimm wanted to make a change in the Mexican logistics and distribution market, especially for urgent and small-sized shipments.

Estafeta was a pioneer in providing house-to-house parcel and messaging services in Mexico. In 1979, companies used low-cost public transportation such as buses and, in some cases, commercial airlines (Estafeta, n.d.).

As a matter of fact, from the moment when Estafeta parcel company was born, it revolutionized the messaging and parcel market, first with delivery in record time by land transportation and since 2000 by air with the first Boeing 737-200 that would begin to travel throughout the Mexican territory to deliver cargo and parcels.



Currently, the Estafeta company transports on a daily basis within the Mexican territory and abroad 1,600 tons of land cargo and 62 by air with messaging and parcel services with a level that competes with big companies such as DHL, FedEx and UPS in this local market (Estafeta, n.d.).

## 4 METHODOLOGY

The present research was based on a quantitative approach and worked with the case study method because it “uses the collection and data analysis to answer research questions and demonstrate previously established hypotheses and relies on numerical measurement, the counting and frequently in the use of statistics to accurately establish behavior patterns of a population” (Hernández et al., 2003). Consequently, through data collection, the characteristics of both companies were raised, which helped to generate the comparative analysis, in order to identify the similarities and differences in their service.

The type of study and the reach of the research was descriptive. According to Tamayo (2004), the type of descriptive research includes the description, registration, analysis and interpretation of the current nature and the composition or processes of the phenomena; in accordance with the above-mentioned, this level of research is used since it seeks to describe and analyze the competitive advantages that one company has over the other. For this purpose, it is necessary to analyze why and how they work to position themselves in the market.

The type of research is non-experimental, as it has been developed by Maldonado (2015). It means that this study needs observe existing situations of each company and, at the same time, analyze them. It was not sought to alter or to modify the variables, only the facts were observed and analyzed as they were presented. On the other hand, the quantitative approach was adopted, that is to say that a series of data collected from the study subject was used. In this particular case, the main source of information has been some users of the services of the parcel companies analyzed.

According to Malhotra (2008), surveys are predesigned questionnaires that allow us to apply them to a large number of people. The survey method includes, especially, a structured questionnaire given to respondents that is designed to elicit specific information.

It was decided to apply this research tool since it allowed to know and collect the opinion of people regarding the quality of the service provided by both parcel companies through a system of questions. Data was collected in a single moment and in a unique time, the purpose was to describe variables and analyze their incidence and interrelation at a given point of time. It is a type of study that measures at once the prevalence of exposure and effect in a population sample; it allows estimating the magnitude and distribution or condition at a given moment.

This study was aimed for adults (men and women) who had required the services of both parcel companies. Due to the lack of access to a sampling frame of this type, the population was taken as the number of inhabitants in general. The extension of this study included the city of Los Mochis Ahome, Sinaloa with a total of 459,310 inhabitants currently (INEGI, 2023).

The instrument used in this research is an adaptation of the instrument created by Gonzales & Huanca (2018), where the quality of the service is evaluated, adapting the five items of these two dimensions: response capacity and security of the variable quality in the service. With them, we have analyzed the sector of parcel

services and its products and services. As a complement, a Likert-type measurement scale was used; when answering a question from a questionnaire prepared with the Likert technique, the level of agreement or disagreement with a statement (element, item, reaction or question) is specified, ranging from totally disagree to totally agree. This method was developed by Rensis Likert in 1932. However, it is a quite current approach today, it consists of a set of items presented in the form of statements or judgments, to which the reaction of participants is asked.

Based on a convenience sample selection, Creswell (2008) defines it as a quantitative sampling procedure in which the researcher selects the participants, since they are willing to participate and available at that moment to be studied. McMillan & Schumacher (2005) define convenience sampling as a non-probabilistic method of selecting subjects who are accessible or available. The sample was determined randomly with a sample selection criterion and with a confidence level of 90% and a margin of error of 10, where "Z" is < 0.10.

Given that in this research  $n=208,000$ , the infinite sample criterion proposed by López & Fachelli (2015) was used, it applies to all the populations that made up of 100,000 or more individuals. Hence, this equation was used:

(1)

$$OWA = \sum_{i=1}^n w_i x_i$$

Where (E) or allowed error is 10%, the confidence level (1-a) and  $n=208,000$  obtaining as a result a sample of 68 surveys.

Inclusion criteria: Adults (men and women) who have used the services of both companies at a certain time were considered.

Exclusion criteria: Men and women who have used the services of only one company or none were excluded.

The subjects under study who participated in this research answered the instrument without adding personal or sociodemographic data. It was so to avoid the reception of personal data; so, their privacy is protected at all times from being exposed, and their participation remains anonymous, in such a way that the researcher also does not know who answered the instrument when processing results.

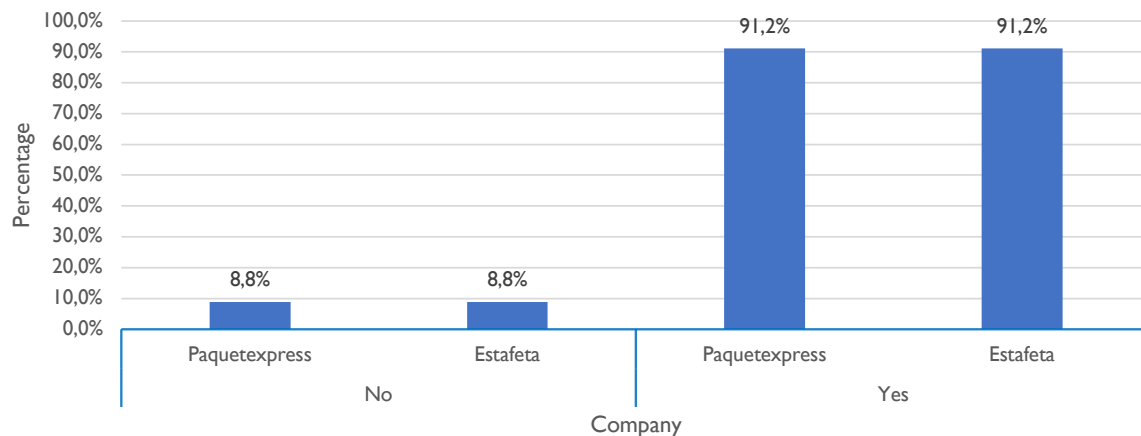
## 5 RESULTS AND DISCUSSION

It was expected to know the ways of working of each of the companies, how they implemented strategies to improve their quality in terms of service, what each of them were, how they sought customer satisfaction, and if they really manage to do it, likewise identify which of the two companies studied executed it with more success.

For this presented study, an instrument validated by experts in the subject was used, previously piloted to verify its reliability, obtaining positive results as was demonstrated by the research by Gonzales & Huanca (2018). An adaptation was made taking into account five items of two dimensions from the instrument, which respond to the study variables, which are the following: Have you used the services of this two parcel companies? What

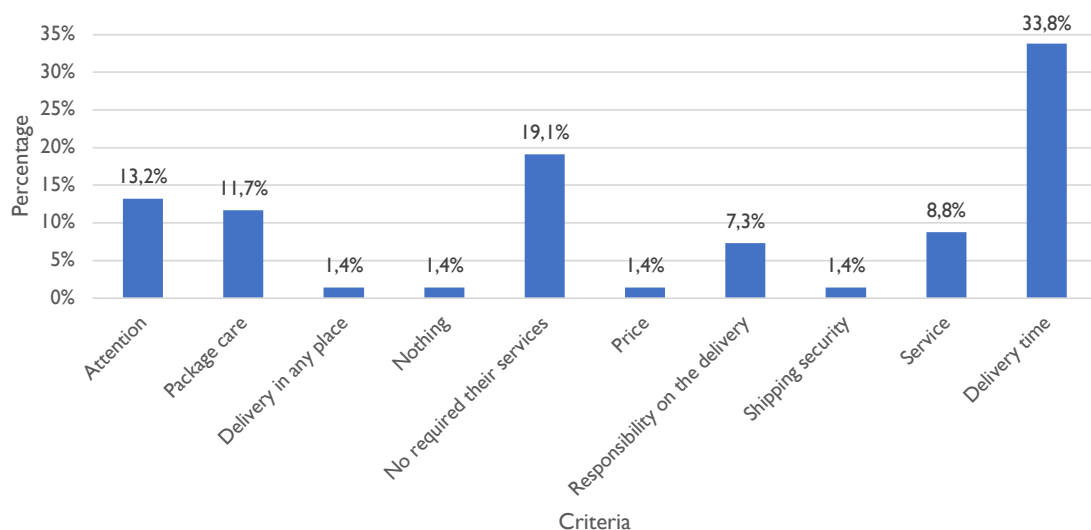
do you value the most about the service received from Paquetexpress? What do you dislike about the Paquetexpress service? What do you value the most about the service received from Estafeta? What do you dislike about the service received from Estafeta?

The most relevant questions to carry out the comparative analysis of the parcel companies are shown graphically below.



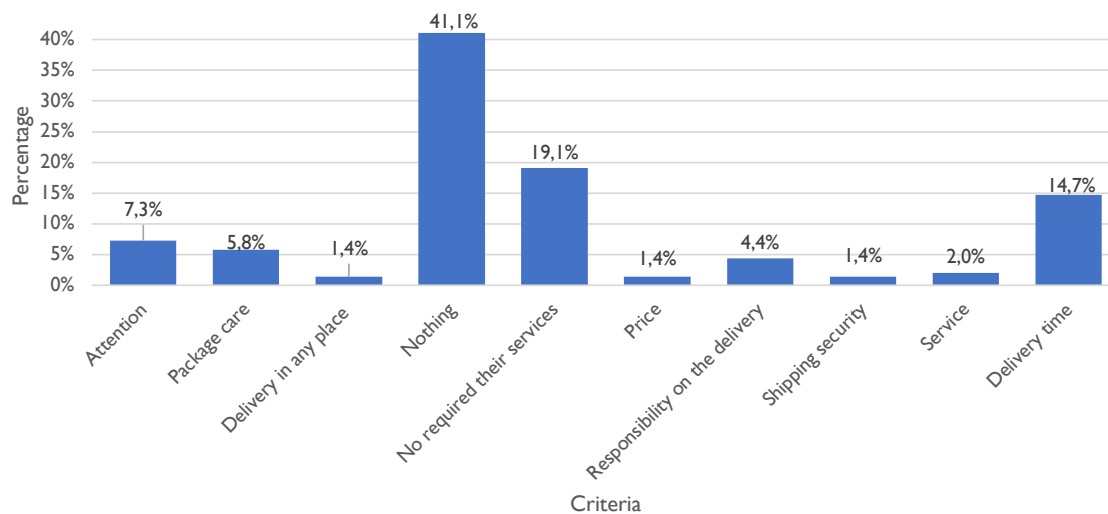
**Figure 1.** Have you used the services of this two parcel companies?

According to the results of the instrument applied, 91.2% of those surveyed have used both Mexican parcels Paquetexpress and Estafeta, while 8.8% answered that they haven't used either of these parcels. It means that these companies enjoy greater acceptance within the population studied.



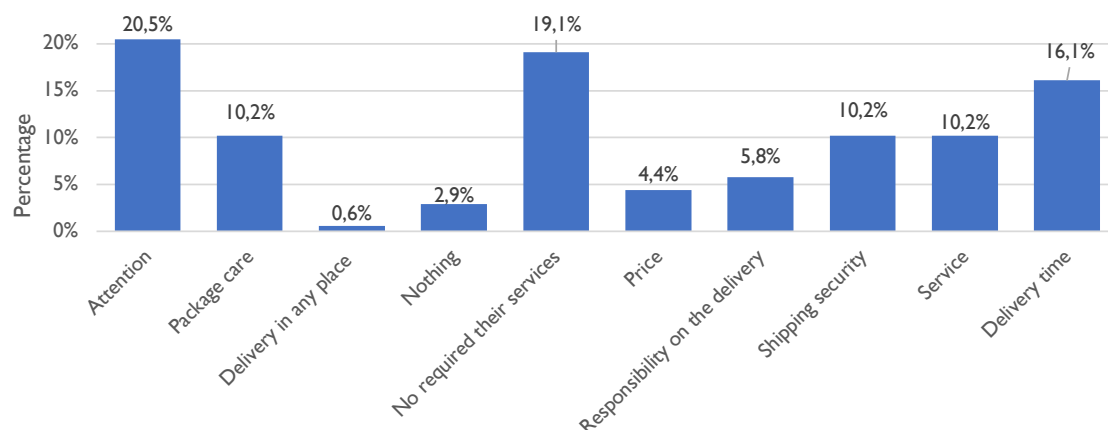
**Figure 2.** What do you value the most about the service received from Paquetexpress?

From the people surveyed, 33.8% valued the delivery time as the most important element of Paquetexpress service. Other relevant items are the attention they provide (with 13.2%) and the package care (with 11.7%). In this case, the most important factor perceived by the clients is related with timing.



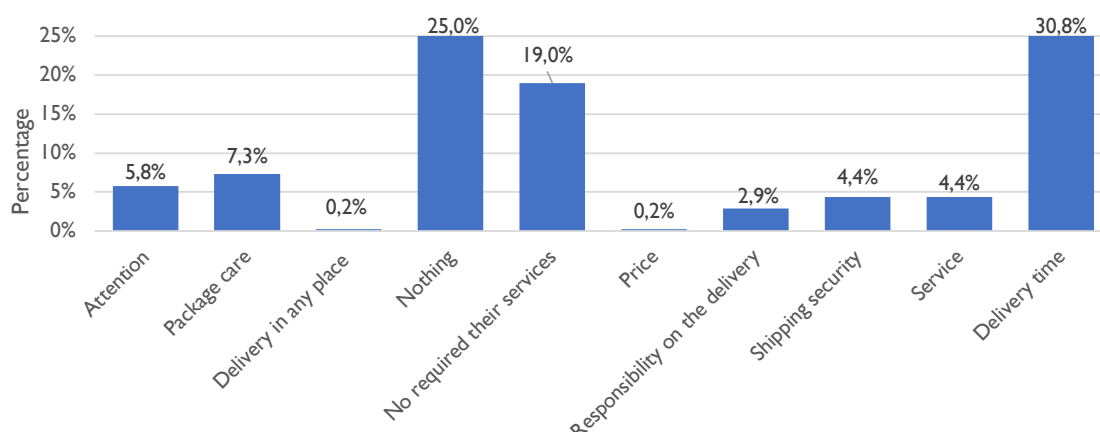
**Figure 3.** What do you dislike about the Paquetexpress service?

41.1% of those surveyed consider that there is nothing they dislike about the Paquetexpress parcel service. Conversely, 14.7% disliked the delivery time, 7.3% the attention, 5.8% the package care and 4.4% the delivery responsibility. In comparison, that first value is emphatically superior to the other ones.



**Figure 4.** What do you value the most about the service received from Estafeta?

From people surveyed, 20.5% think that what they like most about the Estafeta parcel service is the attention they provide. In a second place of value appear these variables: the delivery time (with 16.1%), the care of the packages, the security of shipment and the service (each one with a percentage of 10.2%). Of the criteria that Estafeta customers significantly value are mainly the attention and delivery time, this indicator of timing determines a lower degree of satisfaction regarding to that perceived and expressed by Paquexpress customers, which is a little bit more than the double.



**Figure 5.** What do you dislike about the service received from Estafeta?

30.8% of the people surveyed consider that what they dislike most about Estafeta is the service's delivery time, while 25% think that there is nothing they dislike. A 30.8% of unsatisfied clients because of the delivery time from Estafeta is superior in contrast with the one of Paquetexpress which represents 14.7%.

In order to establish whether these differences are statistically significant, the test of comparison of paired mean was carried out in JASP software, obtaining the mean and the standard deviation (the results are interpreted based on the mean), identifying the following results (see Table 1):

**Table 1.** Descriptive Comparative Statistics of Factors

	Valid	Mean	Typical Desv.	Total
<b>Delivery time Paquetexpress</b>	68	4.000	1.022	272,000
<b>Delivery attention Paquetexpress</b>	68	3.868	1.158	263,000
<b>Packages care Paquetexpress</b>	68	3.882	1.113	264,000
<b>Shipping security Paquetexpress</b>	68	3.941	1.157	268,000
<b>Delivery time Estafeta</b>	68	3.559	1.151	242,000
<b>Delivery attention Estafeta</b>	68	3.574	1.226	243,000
<b>Packages care Estafeta</b>	68	3.750	1.177	255,000
<b>Shipping security Estafeta</b>	68	3.574	1.262	243,000

In Table 1, the four items that correspond to the study variables are highlighted, showing the most representative ones, regarding the customer's perception, obtaining as a result that the company Paquetexpress is perceived by customers as offering better service quality. It implies a competitive advantage over the company Estafeta. The highest component that is identified is the delivery time, in which Paquetexpress has an edge of .441 points; in terms of difference it is the most relevant variable, followed by the factor of shipping security by .367 points, in which, Paquetexpress is still superior than Estafeta; in the delivery attention indicator the difference is by .294 points, where Paquetexpress continues to stand out, and finally, the packages care factor appears, with .132 points over, in favor of Paquetexpress.

As can be noticed, the last factor is the aspect in which customers demonstrated a total disagree, that is why it is identified as the main opportunity area for Estafeta, which establishes foundations for future research in order to identify the reasons that generated those results.

The selected companies are some of the leading enterprises in the Mexican market in terms of parcel services. However, this study has shown that, according to the quality of service and the opinion of people who have used one or both parcel services, the service of Paquetexpress has turned out to have a slight superiority to the service provided by Estafeta. These results are giving Paquetexpress a competitive advantage over the other organization. Taking into consideration the delivery time, the attention given, the care of the packages and the willingness to help that these companies show.

These results are related to what Sandoval (2002) and Espinoza & Martínez (2015) point out: that the quality of service generates a competitive advantage in companies. These authors express and agree that the companies that focus more on the quality of their services generate a certain advantage over other companies that do not pay enough attention to this aspect. This is consistent with what is found in this study.

## 6 CONCLUSIONS

The main dissatisfactions of the clients who receive the messaging delivery service are related to the delivery time of the shipment, the solutions provided in case of losses and the conditions in which shipments arrive, caused by elements related to the strategies and procedures drawn up that guarantee the provision of a quality service. The elimination of activities that do not add value and automation with connectivity allow to meet the delivery deadlines of committed shipments and give fast and reliable responses to customers.

The present work tries to determine the factors by which the quality of the service creates a competitive advantage between the Mexican parcel companies Paquetexpress and Estafeta in the town of Los Mochis, Sinaloa, Mexico.

Based on the discoveries, it is concluded that the delivery time factor is the one that the studied population considers most relevant, when comparing the objects of study, the company Paquetexpress overcomes to Estafeta with .441 points of difference, as said by the analysis instrument used. If Estafeta wishes to excel in all the factors investigated, it would have to pay special attention to delivery time. So it will achieve greater competitiveness.

Regarding to the packages care factor that represents the customer service offered by both companies, a difference of .132 points is observed in favor of the Paquetexpress company, which means that the Estafeta company must improve its customer service processes, in order to satisfy them better.

It is considered that the data collection method used in this investigation is correct since it was possible to collect the information required to meet the objectives set without the need to address other data collection methods. It is reflected in the graphs displayed within the results, where the inclination of customers towards one of the parcels is notorious.

With these results, the hypothesis proposed in this study is accepted, which establishes that the competitive advantage generated by the quality of service of the Mexican company Paquetexpress is superior and has

a negative impact towards the Mexican parcel company Estafeta. This conclusion is taken from the results of the survey, the delivery time, the attention in the delivery, the care of the packages and the security in the shipment that these companies show.

As a recommendation for future studies, the attributes of quality in customer service could be specified and analyzed in detail, it is also invited to incorporate more research variables to better understand the study phenomenon.

#### **AUTHORS' CONTRIBUTIONS**

Nereyda Soto-Medina: Conceptualization, Methodology and Validation. Sheila Suset Marañón-Lizarraga: Drafting-revising and editing. Cesar Arturo Palacios-Valenzuela: Methodology and Validation. Rosa Delia Aguilar-Carvajal: Formal analysis and original drafting. Elizabeth Acosta-Haro: Drafting-revising and editing.

All authors have read and accepted the published version of the manuscript.

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#### **DATA AVAILABILITY STATEMENT**

The sources of information supporting the study are listed in the references. The data obtained from the survey can be requested at [n.soto.academico@uas.edu.mx](mailto:n.soto.academico@uas.edu.mx).

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#### **CONFLICTS OF INTEREST**

The authors declare they have no conflict of interest.

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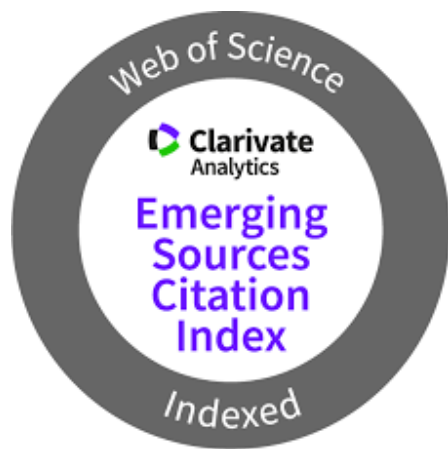
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