

A design proposal for the implementation of a management system based on ISO 9001: 2008 for the Logistecsa company branch Guayaquil.

Propuesta de un diseño para la implementación de un sistema de gestión basado en la norma ISO 9001:2008 para la Empresa Logistecsa sucursal Guayaquil.

María Gabriela Casco López¹*, Cristina Ramon García Santana², Anggely Vanessa Lindao Quinde³

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*Author for correspondence.

Abstract

This research work is aimed at optimizing and standardizing processes and procedures Regional Logistics Operator Logistecsa specifically in its branch located north of the city of Guayaquil, to achieve this goal the design of a management system was conducted Quality based on ISO 9001: 2008.

In the document the current situation of the organization is detailed, for which tools were used as Ishikawa diagram, Multivoting and Process Mapping, parallel to this a diagnosis is made ISO 9001: 2008 using Likert Scale, in which the level of implementation will qualify each of the sections.

Surveys were conducted to internal and external customers, to check the level of satisfaction. Finally, the proposal is presented as the development of the quality manual for branch.

key words Logistic, System, Management, Quality.

Resumen

El presente trabajo investigativo tiene como finalidad la optimización y la estandarización de los procesos y procedimientos del Operador Logístico Regional Logistecsa específicamente en su sucursal ubicada el norte de la ciudad de Guayaquil, para la consecución de este objetivo se realizó el Diseño de un Sistema de gestión de Calidad basado en la normativa ISO 9001:2008. En el documento se detalla la situación actual de la organización, para lo cual se utilizaron herramientas como Diagrama de Ishikawa, Multivoting y Mapeo de Procesos, paralelo a esto se realizó un diagnóstico de la norma ISO 9001:2008 utilizando la Escala de Likert, en el cual se calificó el nivel de implementación cada uno de los apartados. Se realizaron encuestas a clientes internos como externos, para verificar el nivel de satisfacción. Finalmente se presenta la propuesta como la elaboración del manual de Calidad para la sucursal.

Palabras clave Logística, Sistemas, Calidad, Gestión.

1. Introduction

Logistecsa began operations in March 2002, initially being the provider of logistics services for the multinational Xerox, being in charge of storing and transporting their products in the city of Quito; From this moment on Logistecsa began to develop comprehensive logistics solutions, thus opening a branch in the city of Guayaquil, initially intended for Cross Docking, that is, it functioned as a transit warehouse, where only the distribution of products sent from Quito headquarters was carried out [1].

The adequate control of processes and procedures achieved that in 2011, Logistecsa developed as a local logistics operator, which captured important clients in businesses related to medicines, construction materials, telecommunications equipment and consumer goods; They were attracted by the offer of comprehensive logistics solutions, ranging from the provision of merchandise, storage, conditioning or product adaptation

if necessary, and finally distribution, this last process accompanied by a tracking service, thus guaranteeing the efficiency and effectiveness of the service provided.

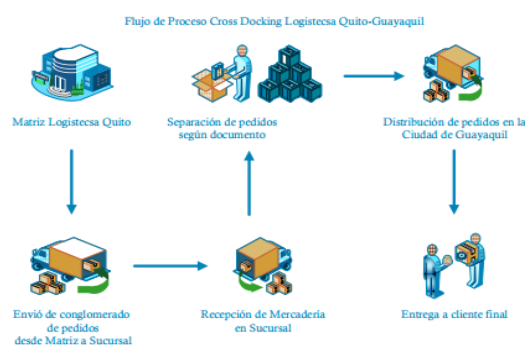


Fig. 1. Logistecsa Quito - Guayaquil Cross Docking Process Flow.

The entry of new clients causes the company's commitment to its clients to extend in terms of services

¹ Universidad de Guayaquil, maria.cascol@ug.edu.ec

² Universidad de Guayaquil, cristian.garcias@ug.edu.ec

³ Universidad de Guayaquil, anggely.lindaog@ug.edu.ec



and forces new processes and procedures to be developed subject to continuous and constant improvement.

1.1 Logistics

In the past, logistics was considered an activity focused solely on moving products from their place of origin to a distribution center, today the criterion has been broadened and it includes efficient practices for providing service, planning, and coordinating the activities of the logistics chain.

Logistics worldwide is a strategic activity, it consists of moving a certain number of products from one nation to another in each time, optimizing times and resources. Large companies measure the efficiency of the service through indicators that facilitate decision making by top management with the main objective of providing customer satisfaction [2].

It is important to determine the customer's requirements to align the services to their needs and meet their expectations. The loyalty of the final customer depends on the added value offered.

In Latin America, logistics has gradually improved compared to Europe and Asia, there is still a difference in the process of providing the service, but we must start by identifying the shortcomings in the region to reduce them and enhance strengths. The critical points are infrastructure, route planning, among others; Improving procedures for logistics chain activities is one way to optimize resources.

At the national level, Logistics has been developing satisfactorily, companies have as a priority to efficiently manage the logistics chain to provide customer satisfaction. There are companies that manage their logistics chain, and others that manage it through outsourcers.

The companies dedicated to providing this service have work teams, infrastructure, technology, and standards that accredit reliability and responsibility regarding the treatment of products, which is perceived by the client when obtaining positive results from their demand [3].

In Guayaquil there are several companies dedicated to offering logistics services such as: DHL, Ransa, Felvensa, Agunsa, Logistecsa among others, the trend in recent decades requires having a Quality Management System certified under ISO 9001:2008 to work in an integrated way with the client, to maintain high quality standards in the provision of the service. Most of these

companies offer transportation, storage, and conditioning services, that is, they provide comprehensive service [4].

1.2 Evolution of outsourced logistics processes

The constant evolution of outsourced logistics processes, and their significant acceptance in national, transnational and multinational companies, generate the development of important strategic alliances between the aforementioned and companies offering storage, distribution and conditioning services such as Logistecsa. The outsourcing of these processes or services helps the manufacturing company to focus solely on its production processes, delegating support activities to a provider and in turn making them strategic activities, without forgetting the significant reduction in their costs [5].

And although the evolution of these businesses has been considerable over the last ten years, there are still companies that choose not to outsource these services and manage their own distribution channels, as well as storage warehouses. This is due to the uncertainty generated by not knowing how the logistics operator carries out the storage and distribution processes [6].

Service logistics companies must face the various demands of their clients, clearly establishing the flow of their processes, as well as their due control, in addition to committing to having properly qualified and trained personnel in the fulfillment of their activities.

This research work proposes for the fulfillment of these demands the design of a Quality Management System based on the ISO 9001: 2008 standard, considering the theoretical, methodological, and practical aspects [7].

1.3 ISO 9001:2008

ISO 9001 is an international standard that applies to quality management systems and focuses on all quality management elements that a company must have to have an effective system that allows it to manage and improve the quality of its products. or services [8].

Customers lean towards suppliers who have this accreditation, because in this way they ensure that the selected company has good control of internal processes within the organization [9].

Logistecsa, has proposed the control and continuous improvement of its processes in the city of Guayaquil, which has become a critical point due to the entry of new clients. Currently it is the most important warehouse of



the company, which is why the design and implementation of a Quality Management System based on ISO-9001: 2008 is necessary [10].

2. Materials and methods

The methodologies to be used in this paper are:

Qualitative: The survey of a compliance diagnosis of ISO Standard 9001:2008, using the Likert tool, as well as satisfaction surveys of internal and external clients, provide significant information for the fulfillment of the general and specific objectives of this research project.

Descriptive: This method is taken when observing and describing through a brainstorming and Fishbone Diagram how the processes and their executors currently develop in the face of various circumstances presented in the Logistecsa Guayaquil branch.

Non-experimental Cross-sectional: In this research project, a survey was used for customers, both internal and external, who were mainly consulted on the impact of the Quality Management System on improving their activities within the company, as well as on compliance with the requirements of the external client.

2.1 Techniques

Ishikawa Diagram. Developed by Kaoru Ishikawa, this tool very commonly used in the research field for its precision when deducing not only the cause of a recurring problem, but also allows visualizing a field of possible effects if the failure is not corrected. An efficient and common way to implement it is based on a brainstorming by a team that is constantly involved with the process to be analyzed, this allows broadening the field of vision of the diagram, allowing valuable contributions.

Likert Scale. Designed and published by Rensis Likert, this tool is a psychometric scale generally based on five points of view, which must be free from any ambiguity, it is widely used in advertising as a measurement of satisfaction with a product or service, also by means of it you can perform a Check List that allows you to observe the level of compliance of a process or activity [11].

To carry out the diagnosis of the level of compliance with the Quality Management System based on ISO 9001: 2008 at Logistecsa Guayaquil, five different points of view were used, which are detailed below:

Table 1. Likert Scale Criteria

Criteria	
1	Does not comply
2	Not Implemented

3	Partially Complies
4	Implemented Almost Entirely
5	Implemented Meets Entirely

Survey. Technique used to collect information that is directly related to the interview and questionnaire, it is characterized by collecting written information. It is used at the time when written information is requested from which the sample will be obtained, it is carried out on a certain number of people.

It constitutes the middle ground between observation and experimentation. Situations that can be observed can be recorded in it and in the absence of being able to recreate an experiment, the participating person is questioned about it. Therefore, it is said that the survey is a descriptive method with which ideas, needs, preferences, usage habits, etc. can be detected.

2.2 Population

The total number of employees of Logistecsa Guayaquil branch is 110 people between men and women of different hierarchies and characteristics according to the environment in which they carry out their daily work activities. In addition to the staff, it was also decided to survey the four representatives of the clients in the warehouses, these people are the ones who observe and evaluate the performance of each of the logistics processes required by the client to the logistics operator Logistecsa.

To obtain the final sample of respondents, the finite formula was applied by means of which the exact number of service providers who were surveyed was obtained to subsequently apply the non-probabilistic tool.

2.3 Sample

For the realization of the survey to internal clients, a random probabilistic sample is taken, that is, people who have the same opportunity to be chosen and selected, thus ensuring the representation of the population in a sample extracted since these will be the most recommendable.

The sample size to be used is unknown until the application of the respective formula is identified with (n), the population size is 110 people which is recognized with (N), the possibility that an event outside the expected occurs was determined to use 0.5 and is established the (P) within the formula of the same amount for the non-occurrence of an event and is recognized by the (q), the margin of error is at 5% since there are people who will give us wrong data that can threaten the truthfulness of the data collected or

collected, the confidence level is 95% this way we will give the research veracity.

Additionally, and as mentioned in the description of the population to be surveyed, a survey aimed at customer representatives will be designed and carried out. These representatives oversee supervising the correct development of the logistics processes contracted and they will have an external vision of how processes are handled and executed within the facilities of Logistecsa Guayaquil branch.

2.4 Required data

n: Sample size.

N: Population size. $N = 110$

P: Possibility of an event occurring, $p = 0,5$.

Q: Possibility of non-occurrence of an event, $q = 0,5$.

E: Error, 7.6 % $E = 7,6\%$ is considered.

Z: Confidence level, which for 95%, $z = 1,96$.
 $n = Z^2 + p \cdot q \cdot N / E^2 (n - 1) + Z^2 + p \cdot q (1)$
 $n = 518.616 / 1.3871(2)$

$$n = 30(3)$$

3. Results

Based on the realization of a diagnosis through an analysis of the causes and effects, and with the aim of presenting a proposal that improves the processes and procedures executed in the warehouses of the Logistecsa branch, located in Guayaquil, it is necessary to collect data through the use of the survey instrument, this in order to collect through objective and accurate questions about the level of satisfaction offered by the branch to both internal and external customers.

Finally, two surveys were prepared, one aimed at internal customers, that is, employees of Logistecsa Guayaquil, considering operational positions and administrative positions. In addition, a second survey was carried out, focused on the company's customers, which was conducted with the 4 clients they have. The surveys were based on 11 questions to be asked to employees and 12 questions to be asked to customers, which had to be answered on a scale of 4 statements: Very Satisfied, Satisfied, Little Satisfied and Dissatisfied.

The processing and analysis of the information collected in the surveys was carried out with the help of the Microsoft Excel utility software, the same one that was used for both data entry and graphing and tables, for better analysis of the results obtained.

3.1 Compliance with ISO 9001:2008 in logistics Guayaquil



Fig. 2. General Compliance ISO 9001:2008 at Logistecsa Guayaquil.

To analyze compliance with ISO Standard 9001:2008 based on the Likert Scale, 5 criteria were used to evaluate the company:

- Does not comply with requirement,
- Unimplemented requirement,
- Partially complies with requirements,
- Requirement implemented almost entirely,
- Requirement implemented fully complies.

Where it was determined that there is 70% non-compliance, 1% that is Not Implemented, 18% that Partially Complies, 7% that is Implemented Almost Entirely and only 4% of the Standard that is Implemented Fully Complies, there are several causes for which these percentages have been given, reflecting the weak points of the company, those detailed below:

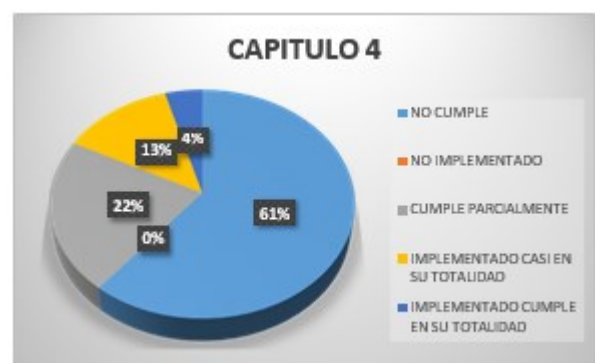


Fig. 3. Compliance with Chapter 4 of ISO standard 9001:2008 at Logistecsa Guayaquil

Evaluating ISO Standard 9001:2008 by chapters we have that in Chapter 4 of the Quality Management System there is 61% Non-Compliance with the general requirements, because the Quality manual is created at the Quito branch, however, its scope has not been

extended to the Guayaquil branch and that is why the documented declaration of the quality policy and objectives is not evident, in addition the processes and their interaction have not been defined.

Regarding records, they do not provide evidence of compliance with the requirements and effectiveness of the system, it is important to point out that there is no established methodology for their preparation and control.

The 22% of the Partially Complies criterion, is due to top management's responsibility to ensure that the necessary resources are provided for the execution and control of the processes. Internal documentation is controlled in Logistecsa Guayaquil, but there is a dependence on the Quito Logistecsa headquarters, since, if an update or review is required, it is requested from the Quality Department in Quito for its respective approval, external documentation is identified by departments that receive it, the records remain legible and easily identifiable.

The criterion corresponding to the requirement implemented almost entirely has 13%, encompasses document control, which are handled from the Quito headquarters, the quality department approves and identifies the changes that have been generated, ensuring that the versions that are delivered are current, which prevents the use of outdated versions.

The remaining 4% belong to Fully Implemented Meets Entirety, since the documents are legible and understandable.

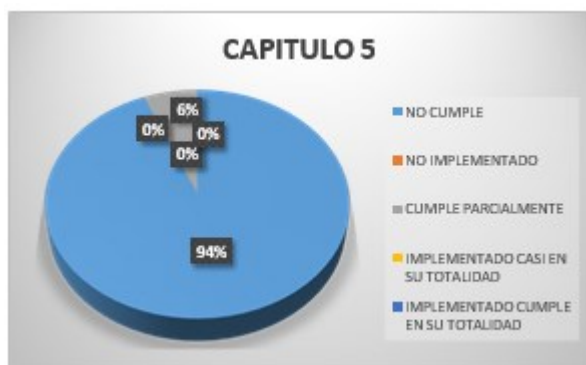


Fig. 4. Compliance with Chapter 5 of ISO standard 9001:2008 at Logistecsa Guayaquil

Analyzing the compliance criteria of Chapter 5 Management Responsibility, it was determined that there is 94% Non-Compliance with the requirements of ISO Standard 9001-2008, given that there is no evidence of the commitment of management in the Logistecsa Guayaquil branch towards the implementation of a Quality Management System, the main requirements that

generate customer satisfaction are not communicated to the organization, which are:

- On time and complete order delivery.
- Order delivery tracking and reporting.
- Management and control of logistics documentation (Purchase Orders, Guides, Invalids, SRI Invoice Copy, etc.)
- Solution of logistics problems.
- Product storage security.
- Inventory effectiveness.
- Proper inventory turnover.
- Logistics operation report.
- Personnel trained for product handling and conditioning activities.
- Uniforms and equipment suitable for merchandise conditioning activity.
- Appropriate procedures.
- Adequate temperature for handled product.

Regarding Planning, quality objectives are not defined in the company, for this reason it is not aligned with the Quality Policy since it is also not established according to system requirements.

The responsibilities have not been defined, nor the people in charge of carrying out the activities for the implementation of the Quality Management System, by not determining the management representative there is no situational diagnosis of the processes referring to the standard.

Management does not have the input information required by the Quality Management System in order to be able to evaluate its performance according to ISO Standard 9001-2008 since Logistecsa Guayaquil currently does not have it implemented.

The criterion that Partially Complies is rated at 6%, because Management ensures the availability of resources.



Fig. 5. Compliance with Chapter 6 of ISO standard 9001:2008 at Logistecsa Guayaquil

According to the analysis of Chapter 6 Management of Resources, 25% Non-Compliance was obtained mainly due to the little provision of training and staff training resources, which directly affects compliance with customer requirements.

The criterion Not Implemented reaches 9%, corresponding to the improvement of customer satisfaction, because control measures, preventive actions and continuous improvement of the processes involved in customer requirements are not taken.

The 58% belongs to the criterion that Partially Complies, since in the company there is no evidence of a program where training processes are planned and executed according to each of the jobs in the branch, there is no lifting of measurement information of staff training, through which skills can be improved.

There is evidence of few trainings given to employees, focused mainly on order, cleanliness, standards for use of personal protection and management of utility computer systems (Microsoft Office).

The organization has adequate facilities and equipment for the provision of the service, it should be mentioned that in the warehouse there is no ventilation system or structures that allow the constant flow of air, and the environment is not always appropriate for the performance of staff activities, the temperature of the warehouses increases considerably, generally in the winter months, oscillating at 32° inside the warehouses.

The criterion indicating that the requirement Implemented Almost Entirely represents 8%, the reason for this percentage is given in that the company provides the necessary equipment for the provision of the service.

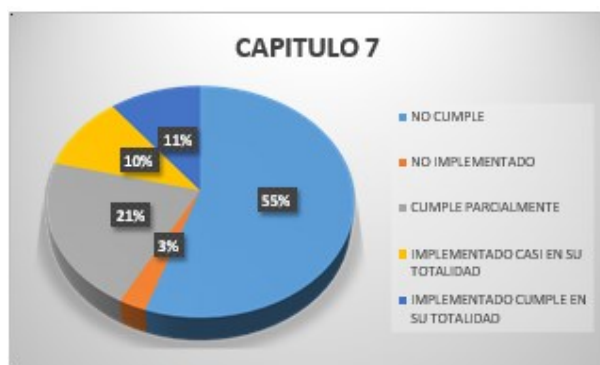


Fig. 6. Compliance with Chapter 7 of ISO standard 9001:2008 at Logistecsa Guayaquil

The 55% Non-Compliance is due to several factors such as service provision, where acceptance activities and criteria are not defined, in addition to the requirements related to service provision.

Purchasing is a process that Logistecsa Guayaquil does not contemplate as its own activity, for the acquisition of supplies or equipment, the detailed requirement is made to the Quito headquarters, they proceed in such a way that the specifications indicated by the Guayaquil branch are met, and they likewise verify what has been purchased.

There is no evidence within the documentation of a work instruction for the execution of critical activities that directly affect customer satisfaction.

Now they do not have monitoring and measuring equipment, which would help verify existing processes. Equipment is available to control the temperature in the area, but these have not been calibrated or readjusted since initial use.

The 3% corresponds to the requirement Not Implemented, whose shortcoming is in the control of the provision of the service, since the characteristics of the provision of the service are not described.

The Partially Complies criterion has been rated with 21%, because in the provision of the service the requirements for its realization are defined. The documentation and records regarding the execution and results of the process are established, but they are not properly controlled. Monitoring the provision of the service occurs until the moment the product is transferred from the warehouse to the customer. Regarding controls and identification, the product goes labeled with its detailed information, which facilitates traceability.

The criterion Implemented Almost Entirely with 10% is derived from factors such as communication with the client, which occurs via e-mail transmitting queries and information related to the provision of the service, as well as proper feedback on observations and complaints of the service provided.

Controls on the unique identification of the product are given through labeling, keeping records with relevant information, facilitating traceability if any nonconformity occurs.

The last criterion, Implemented Fully Complies with 11%, which is given by the provision of equipment

suitable for the provision of the service, also it is an obligation to protect, preserve the client's property since it is part of a legal requirement, preservation of the product goes from the start of processing until delivery to the intended destination maintaining conformity with the requirements.

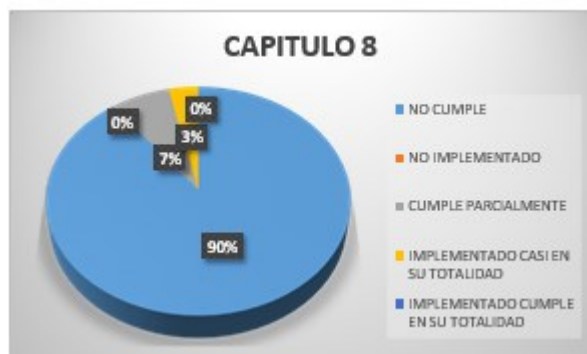


Fig. 7. Compliance with Chapter 8 of ISO standard 9001:2008 at Logistecs Guayaquil

The 90% of the Does Not Comply criterion is given since currently Logistecs Guayaquil branch does not have an implemented quality management system, therefore, the mandatory procedures for measuring and improving customer satisfaction are not established.

According to results, 7% belongs to Partially Complies, corrective actions are taken from the complaints found by the client in the provision of the service, corrective actions are taken from there, but adequate follow-up is not given to them.

Implemented almost entirely, criterion rated with 3% given by a factor that is the treatment of Nonconforming Product, the action taken by the company is to separate it from inventory and report novelties presented to the client.

3.2 Results of internal customer surveys

Question N° 1 "Being part of logistecs"

Table 2. Perception of Belonging to Logistecs Guayaquil

Criteria	Frequency	Percentage
Very Satisfied	7	23%
Satisfied	19	63%
Little Satisfied	4	14%
Dissatisfied	0	0%
Total	30	100%

Employees felt about belonging to Logistecs, 23% of staff are very satisfied which is very important since people are committed to the company. Regarding the following criteria, 63% of respondents are satisfied with their current work and finally 14% of employees are somewhat dissatisfied with the activities carried out in the company.

Question No. 2 "Work environment"

Table 3. Perception of Work Environment Internal Customers.

Criteria	Frequency	Percentage
Very Satisfied	4	14%
Satisfied	10	33%
Little Satisfied	16	53%
Dissatisfied	0	0%
Total	30	100%

According to the compilation of survey information, it is observed that in one of the most important criteria such as the work environment of the company, 14% of the respondents answered that they are very satisfied with how the work environment develops, likewise 33% of the population is satisfied with this criterion, but not 53% of the respondents who answered that they were not little satisfied.

Question No. 3 "Collaboration between peers"

Table 4. Perception of Collaboration between Peers.

Criteria	Frequency	Percentage
Very Satisfied	11	37%
Satisfied	14	47%
Little Satisfied	5	16%
Dissatisfied	0	0%
Total	30	100%

One of the critical factors to consider within the criteria of job satisfaction of internal customers is based on teamwork, and we see that in the Logistecs branch of Guayaquil, 37% of employees are very satisfied with the collaboration of coworkers, while 47% of respondents said they were only satisfied, not 16% of employees who feel somewhat dissatisfied with the level of teamwork in the branch.



Question No. 4 "Internal communication"

Table 5. Customer Internal Communication Perception

Criteria	Frequency	Percentage
Very Satisfied	8	27%
Satisfied	12	40%
Little Satisfied	9	30%
Dissatisfied	1	3%
Total	30	100%

Internal communication in addition to being a good practice within companies, is also an important factor in the correct development of processes and their continuous improvement, in the Logisteca Guayaquil branch there is a perception of 27% of employees that communication is through adequate and timely channels, and they feel very satisfied, similarly 40% of respondents believe that internal communication is well established but can be improved, and 30% and 3% of respondents answered that they are somewhat dissatisfied and dissatisfied with the development of this criterion.

Question No. 5 "Means of dissemination of information"

Table 6. Means of Dissemination of Information Referring to the Company.

Criteria	Frequency	Percentage
Very Satisfied	5	16%
Satisfied	14	47%
Little Satisfied	8	27%
Dissatisfied	3	10%
Total	30	100%

The means of dissemination or internal communication in the company were rated on the following criteria: 16% of respondents believe that the communication channels whether written, verbal or electronic are correct and rate them as very satisfactory, likewise 47% of the population believes that the means are the right ones or carried out correctly, giving a satisfactory rating.

While 27% of respondents feel somewhat dissatisfied with this criterion and finally only 10% of the population of the Guayaquil branch feel completely dissatisfied with the way communications are handled within the company.

Question No. 6 "Training"

Table 7. Customer Internal Training Perception.

Criteria	Frequency	Percentage
Very Satisfied	7	23%

Satisfied	11	37%
Little Satisfied	7	23%
Dissatisfied	5	17%
Total	30	100%

Staff training is one of the most influencing factors in operational processes, since the ability to carry out the activities assigned depends on their knowledge, customer satisfaction. In this issue there is quite a discrepancy between the employees surveyed, with only 23% of employees very satisfied, while 37% of them consider that the training is given but needs to be improved, 23% of respondents consider the training received by the company to be very little satisfactory, and finally a considerable 17% of the population surveyed is totally dissatisfied with the training criterion.

Question No. 7 "Working conditions"

Table 8. Customer Internal Working Conditions Perception.

Criteria	Frequency	Percentage
Very Satisfied	6	20%
Satisfied	12	40%
Little Satisfied	12	40%
Dissatisfied	0	0%
Total	30	100%

Based on the data collected in the surveys of Logisteca Guayaquil staff, we can say that 20% of employees find the working conditions offered to perform their work very satisfactory, in the same way 40% of employees feel satisfied for the same criterion. 40% of employees believe that the conditions given within the company do not meet their needs and must be improved.

Question No. 8 "Professional development"

Table 9. Customer Internal Professional Development Perception

Criteria	Frequency	Percentage
Very Satisfied	6	20%
Satisfied	12	40%
Little Satisfied	10	33%
Dissatisfied	2	7%
Total	30	100%

Regarding the opportunities for professional development offered by the company to its employees, and based on the information collected, we can say that



only 20% of the employees surveyed feel very satisfied with the opportunities offered, in addition 40% of the respondents feel only satisfied, contrary to this 33% of the company's staff feel little satisfied with this criterion of the organization, and finally a considerable 7% of employees feel completely dissatisfied with professional development and promotion.

Question No. 9 “Fair remuneration”

Table 10. Customer Internal Fair Remuneration Perception.

Criteria	Frequency	Percentage
Very Satisfied	4	13%
Satisfied	5	17%
Little Satisfied	14	47%
Dissatisfied	7	23%
Total	30	100%

The economic issue is preponderant within the satisfaction of internal customers, people constantly seek to increase their source of income and when they do not feel that their effort is recognized correctly, they look for other job options, which directly affects the interests of the company. Thus, we can say that based on the surveys carried out, 13% of respondents feel very satisfied with the remuneration received at Logistecsa Guayaquil, 17% are satisfied with their income, 47% of the branch's employees are somewhat dissatisfied with their monthly remuneration and 23% of the company's employees are completely dissatisfied with the monthly salary received.

Question N° 10 “Contribution to the development of the company”

Table 11. Customer Internal Professional Development Perception.

Criteria	Frequency	Percentage
Very Satisfied	8	27%
Satisfied	12	40%
Little Satisfied	10	33%
Dissatisfied	0	0%
Total	30	100%

The sense of contribution to the organization with its work is very important for most employees, feeling that the activities carried out day by day constantly help achieve the goals set, this criterion was consulted with the personnel of the branch, giving results such as 27% of employees feel that their contribution is significant and are very satisfied with it, similarly 40% of the staff is only satisfied with the contribution of their activities

to the company and finally 33% of the people surveyed responded and showed their little satisfaction with the activities they perform within their daily workday.

Question No. 11 “Employee - boss relationship”

Table 12. Employee - Boss Relationship Level.

Criteria	Frequency	Percentage
Very Satisfied	8	27%
Satisfied	12	40%
Little Satisfied	8	27%
Dissatisfied	2	6%
Total	30	100%

Just as teamwork is important, the leadership of those teams is equally or more important since they will be in charge of guiding employees in the right way to achieve objectives, as well as ensuring the efficient management of resources. Based on the assessment of how employees feel about their relationship with their immediate boss, the following results were reported: 27% of employees believe that the relationship with their immediate boss is good and are very satisfied, similarly 40% of respondents feel satisfied, while 27% of employees believe the relationship with their boss can improve, and are currently somewhat dissatisfied, finally 6% of respondents feel that the relationship is not good and are totally dissatisfied.

3.3 General satisfaction level of internal customers by criteria

Table 13. Level of Customer Satisfaction Internal by Criterion.

Criteria	Frequency	Percentage
Very Satisfied	74	23%
Satisfied	133	40%
Little Satisfied	103	31%
Dissatisfied	20	6%
Total	330	100%

Based on the sum of the frequencies in each of the statements, a general level of satisfaction of Logistecsa employees at its Guayaquil branch was obtained, we can affirm that 23% of the employees surveyed are very satisfied to belong to the company, another 40% of the employees are only satisfied with the fulfillment of their activities in the company and the remuneration they receive, likewise 31% of the employees are not satisfied within the organization and are prone to leaving the company, and finally a considerable 6% of those



surveyed are completely dissatisfied with their work at Logistecsa Guayaquil.

4. Conclusions

Based on the analysis of the quality tools that were used, it was possible to identify the company's problems, the level of compliance with the service provided and the level of satisfaction of both internal and external customers. That is why it is concluded that:

- There are inconsistencies in the company, such as the case of documented procedures, since they did not match the execution of said processes, there was no correct preparation and control of records, follow-up was not carried out on actions taken for nonconformities, lack of inductions to jobs.
- Empowering and training internal customers is important so that they can develop professionally, the treatment they will provide to
- the client will make a positive or negative difference depending on their attitude towards, how satisfied the staff is in relation to the conformity with their job.
- The analysis carried out with the Ishikawa Diagram gave us a first glimpse of the company's situation, through the 6 categories it was possible to analyze what the company's weak point is, with the workforce being the most affected due to its low rate of continuous training, likewise several factors such as empirical processes, inadequate climate control of warehouses, inadequate follow-up of actions implemented for nonconformities, scarce measurement of subcontracted services and lack of maintenance programs for machinery and equipment are the constants that prevent process improvement.
- According to the analysis carried out based on the Likert scale, it was possible to appreciate the percentages of compliance with ISO standard 9001:2008 in the company Logistecsa, it should be noted that the highest percentage corresponded to Does Not Comply with 63 %, followed by 18% belonging to requirements that Partially Comply, 7% of requirements Implemented Almost Entirely, 4% of requirements Implemented Comply Entirely, finally 1% of requirements Not Implemented, through this analysis it was possible to propose improvements and make the design of the Quality Management System.
- The definition of customer requirements is important, since quality objectives and their compliance can be monitored ensuring that the customer is satisfied with the service provided based on them.
- The Quality Manual for Logistecsa is the document that contains the structure of the Quality Management System, which specifies mission, vision, quality policies and quality objectives, which

are proposed to be met within a certain time, focusing on the continuous improvement of the organization.

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