

PROCEDURE TO IMPROVE SERVICE DELIVERY DHL COURIER EXPRESS COMPANY BELONGING TO THE CIENFUEGOS POST OFFICE

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ABSTRACT

The present article shows the main results of a research aimed to improve the DHL Express delivery service. A procedure designed for this purpose, which includes among its main steps the identification to the moments that affect customer satisfaction, selection of root causes and the continuous improvement of them.

Some Quality Management tools are proposed to carry on with the research such as: stratification, verification sheet, brain storming. All analyses are sustained by processes approach.

The identification of client dissatisfaction, the improvements related to the vehicle routing activity and the information treatment to respond to the clients during service process are the main results obtained in the research.

KEYWORDS: Customer; Process Improvement; Procedure; Shipping Service.

INTRODUCTION

Today, organizations face a changing world where new trends and challenges are imposed. "Following the implementation by governments of policies on globalization and

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liberalization of markets, customers have become much more critical of the quality of service" [Gayathri et al., 2005, p.123]⁽¹⁾. "These forces have been animated by a process of innovation and technological improvements that have led to substantial changes in quality" [Ayuso and Martinez, 2006, p.6]⁽²⁾.

However, studies carried out to realize marked differences between a successful institution and other underperforming with regard to customer service persist.

Many companies do not have clearly defined what is important to the consumer, since most use incorrect measurement of compliance of their offers. In our opinion, this problem originates as a product of not correct and effective studies of satisfaction in all cases, since it focuses on the parameters that the company believes that compliance means for the customer.

In that sense, it is becomes imminent to track each customer and to analyze their satisfaction, so you can detect in time the factor or factors that are causing dissatisfaction in them, so that their loyalty is assured.

Service businesses in Cuba are not relieved of this problematic; examples of this are the needs arising in their performances, which have raised the state policy changes in their economic procedures, manifested in the new Cuban economic model.

One of many services offered by the companies are those which are related to shipments to various destinations, within and outside the boundaries. The courier in Cuba, DHL Express is a representative for the prestige it has maintained over the years, locating service offices across the country to receive and send documents and packages.

The DHL Express in Cienfuegos office has maintained stable levels of income, with high demand for their services. This has failed to satisfy its customers in accordance with the requirements that they will pose. By persisting complaints and customer complaints regarding:

- Delay in delivery times of shipments requested by customers (with delays of up to 10 days and more, depending on destination)
- Quality of shipments when they arrive at the hands of the recipient. Packets arrive open
- Delays in response to complains
- Services not provided due to lack of information
- Lack of materials needed to provide the service

With this problematic situation there arises the need to monitor the shipping process, studying their satisfaction. Therefore in this research the general objective is to design a method to improve service delivery, DHL Express focused on customer satisfaction.

DEVELOPMENT

Materials and methods

To improve the delivery service DHL Express courier, a method is proposed which is based on correspondence with the 'deming cycle'. This part of the model proposed made by Restrepo (2006) and is based on a change in the pyramid organizational structure, where the client, followed by the divisions, deputy managers and base management, is at the highest level who must manage the relationship with end customers.

The model aims to improve those companies whose service provided depends in part on logistics services. The analyzes performed are based on the approach process of Villa and Pons (2009). The procedure outlined in stages, steps and tools is shown in Fig. N° 1.

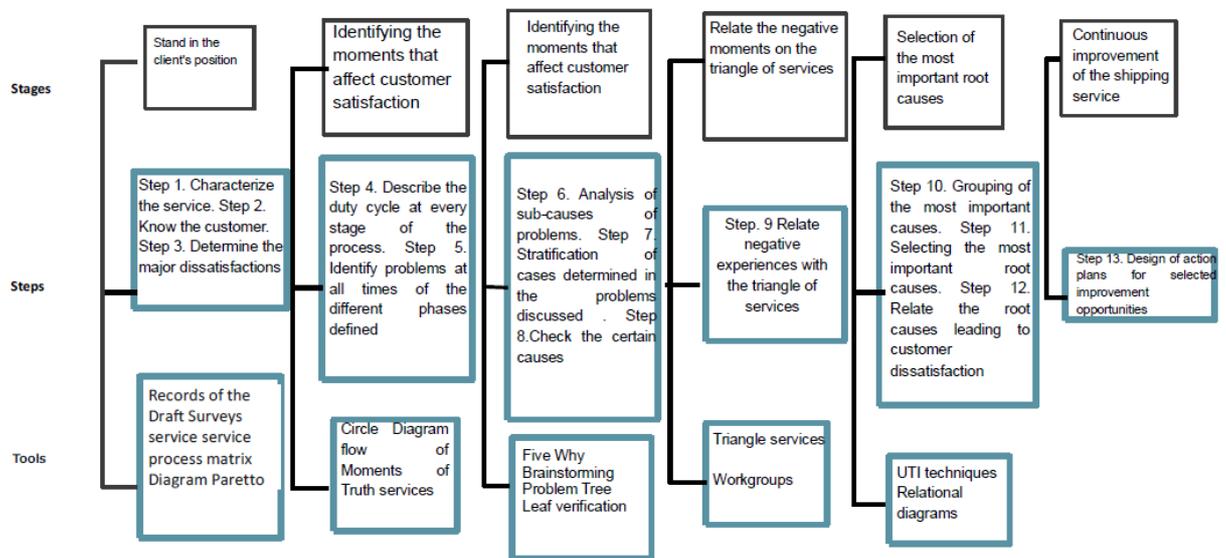


Figure N°1: Procedure outlined in stages and steps

Source: Own Elaboration

Stage I: To be in the client's position

To be placed in the client's position means for the organization that decides to adopt this philosophy, to think and take precedence over the desires and needs of its customers. The company must take precedence over the requests and demands of this. This service must be designed from knowing the essential characteristics, which should be in line with what the customer wants, but it also should study and master their features.

Step 1. Characterize the service

One of the characteristics or attributes of the service are the customer interaction and adjustment during operation (Acuña et al., 2009). Both together to display intensity of labor, allow the company to define the type of service provided.

In this way, in addition to characterizing features of the service, needs of the organization are defined. The analysis of the three attributes related to service matrix lets you know how the service it provides is and how far or close you are to what you should really provide.

Two other attributes are the complexity and uniqueness (Chase, 2009), they provide information needs. The first represents the skills, while the uniqueness or customization is depending on the number of customers who can use the service.

Once we know the characteristics of service provided, you must move to the second element in the characterization of service, based on the process description.

Currently service leaders have called the flowchart in the case of services, the service blueprint or outline (Chase, 2009). This highlights the importance of its design. This scheme through a 'line of sight' separates those activities that the customer sees and does not see.

Step 2. Know the customer

As outlined by Hoffman and Bateson (2012) a good relationship marketing strategy to meet the client builds on four fundamental axioms, are: identification, differentiation, interaction and adaptation.

Known as its primary or main segments, it is necessary to draw a focus to ensuring a level of service to each one and avoid wasting resources on customer groups which are not significant.

Step 3. Determine the major dissatisfactions

The dissatisfaction of the customers are the starting point for improving the company, as well as to know the difference between what the customer expects and the actual service they receive, this is of utmost importance.

The recommended procedure in the survey is administered by Brazoban (2011), which is designed and validated according to the requirements of the literature, taking as reference variables and the form of assessment models such as the '5 gaps' and Serv - Qual, Serv-Perfec.

Having analyzed these metrics results are interpreted properties, defining the variables of greatest dissatisfaction.

Stage II: Identifying the moments that affect customer satisfaction

The second stage is to describe what the client does from the service request until it receives it, analyzing the events that may occur during their contact with the company that is providing the service performed.

Step 4. Describe the service cycle at every stage of the process

To identify the moments that affect customer satisfaction, it is necessary to represent each step. To do this it is recommended to refer to the flowchart or blueprint of the service described in step 1. From there the most important sub-processes are defined and in each cycle will be detailed, the following cycle represented in a circle.

Step 5. Identify problems at all times of the different phases defined

In this step the issues that impact negatively on the moments of truth are identified. With this starting point, this stage of problem identification is organized, defined as follows:

Create a work group.

Observe the actual process repeatedly.

Place the possible situations that generate problems observed as described in each service circle.

Interviewing sales managers, using the brainstorming style, to determine and record other situations.

List all possible situations that cause problems, reviewing and describing in detail what they are.

Explain why selected issues are important, considering what and how they affect.

Represent them in service circles.

Thus in the circle corresponding to each activity, will describe the possible situations. The negative moments are reflected in the diagram with a small yellow circle, constituting the problems that cause and/or may cause dissatisfaction in end customers.

They may be certain problems through log complaints, existing dissatisfactions, direct observations of the process, among others.

Stage III. Identify how they are manifested in the company's problems and how the processes generate negative moments

In this, one identifies how the problems are manifested during each phase of service that is provided to a customer; how these processes generate negative moments for the customer. Besides, the main reasons that cause the problems and their verification are determined.

Step 6. Analysis of the causes and sub-causes of problems

In this step the most likely causes and sub-causes are analyzed. The identification of them is obtained by the technique of the five Why (FiveWhys).

Step 7. Stratification of cases determined in the problems discussed

Stratification according to Gutierrez and Wand (2007) to analyze problems, failures, complaints or data, classifying them according to factors thought can influence the magnitude thereof.

Stratification analysis procedure proposed in the context of the problem tree, through any basic tool for reference and Gutiérrez Vara (2007). Finally checked the most important causes are listed.

Step 8. Check the determining causes

To complete this step in this procedure it is recommended to use the check sheet, one of the basic tools of statistical control or a six sigma project which confirms possible causes of problems.

Stage IV. Relate negative experiences with the triangle of services

This stage aims to associate certain causes in the previous step to each element of the triangle to see the impact it has on the problems of the business strategies, people and procedures.

Step 9. Attach causes of problems of the triangle elements of the services

After determining the most likely causes and analyzed for each circle sub causes service, these sub-causes are associated with each element of the triangle of services.

It is recommended to make sessions teamwork and analyze and defined each sub-cause and the elements that are associated on their current performance. These are represented by numbers at each vertex of the elements, according to the numbering that was given in the preparation of the service cycle and tree problem.

Stage V: Selection of the most important root causes

Stage V aims to identify and select the root causes that contribute to addressing the problems detected.

Step 10. Grouping of the most important causes

It is necessary before applying the UTI technique (Urgency, Trend and Impact) to make a grouping of the most important causes determined in step 9 from step IV. This grouping is done taking into account elements of the service process.

Step 11. Selecting the most important root causes

Determining the importance of root causes is done through UTI technique (Urgency, Trend and Impact). This is used to set priorities in developing improvement plans.

There are other useful tools that allow you to prioritize elements of different types, such as: skilled methods, analysis of failure modes and effects (FMEA), weighted voting and frequency histograms.

Step 12. Relate the root causes leading to customer dissatisfaction

To relate the causes of dissatisfaction the inter-diagram technique is used. This diagram allows us to relate the relationship between factors and problems.

Stage VI: Continuous improvement of the shipping service

Improvement plans for each opportunity are proposed relating to priority root causes and proposed actions.

Step 13. Design of action plans for selected improvement opportunities

This step must decide, detailing and plan actions and changes to be implemented, corresponding to the final stage of planning PDCA cycle (plan, direct, control and act).

Step 14. Suggest design improvements

At this stage the design of some of the improvements in the schemes presented above were proposed.

Results

The results of applying the proposed method improves the delivery DHL Express Courier service, using as a study case Cienfuegos DHL office, belonging to the Courier Company, earned a group of benefits compared to the current proceeding.

Associated essentially to the order management process one obtains the distinctive service provided, descriptions of the process through the service blueprint (Chase, 2009) are achieved. Strategies aimed at ensuring a certain level of service for each segment so as to avoid wasting resources on customer groups that are not significant. Identify the moments when the client remains in contact with the system, therefore more likely to be negative moments dissatisfaction or through verification of the same.

Certain causes are checked and confirm and establish the most likely. The check sheet are selected to confirm the possible causes of problems tool. The result gives the following root causes:

The customer does not receive the service because the management has questions, he calls Havana and they do not answer

Incorporated into the check sheet the customers who arrive during the two months observed, taking into account the shipping destination. The cases where the manager has doubts as to the information and proceeds to call the head office, are observed. The summary of the data collected shows that 92% of customers who faced this situation did not receive the service.

The customer does not receive the shipment at the agreed time because there is a delay in the route

In this aspect there are guides or AWB (document containing customer data and the recipient) that respond to different destinations and each one of the delivery cycles, which is not met in 90% of cases. The routes taken as a reference are the longest in the delivery times.

In Figure 2, 3, 4 and 5 one shows the routes and guides sampled and their delivery cycles are shown.

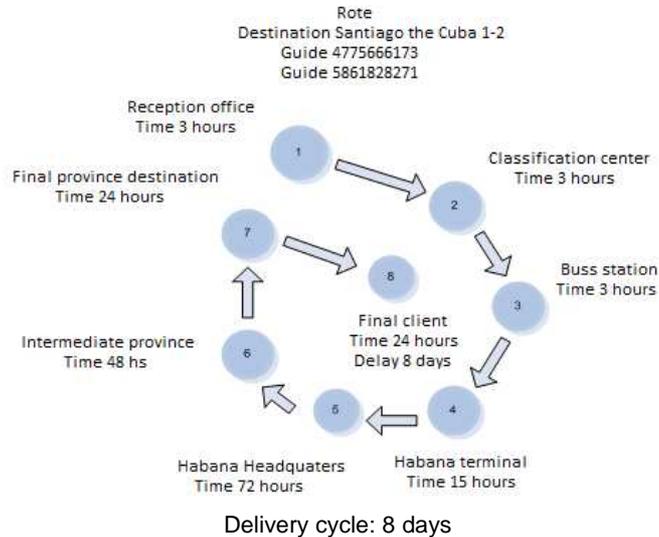


Figure N°2: Current route Santiago, Cuba
Source: Own Elaboration

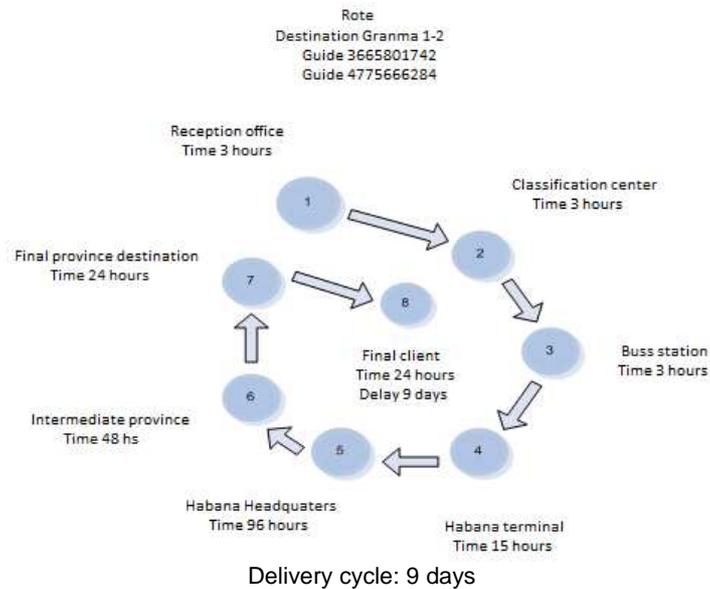


Figure N°3: Current route Granma
Source: Own Elaboration

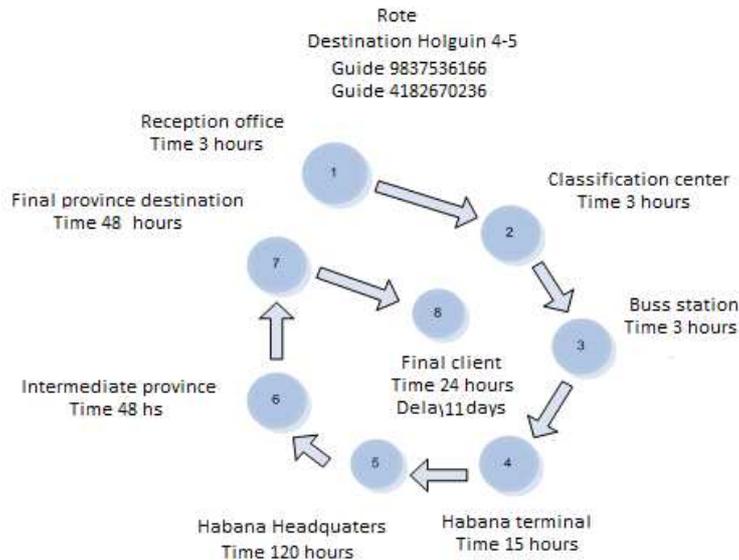


Figure N4: current path Holguin 1
Source: Own Elaboration

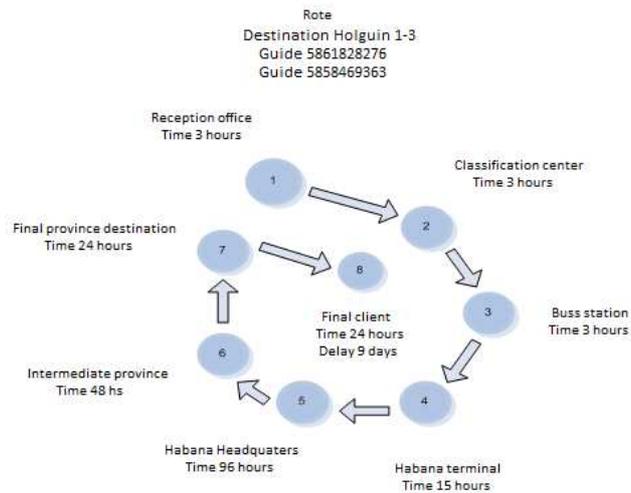


Figure N5: Present Route Holguin2
Source: Own Elaboration

Other considerations related to transport:

The corresponding routes to the eastern provinces of the country, is divided from the parent company to its destination in a dredge belonging to the Postal Company, which only delivers twice a week, tuesdays and thursdays. (Problems with the means of transport).

In the classification and transfer a frequent delay for all shipments, consists in moving the bag to the sorting center and proving that during this phase the bag will not have any control or operation, only that they will collect the rest of the other mailings classified in that office, to be sent to the terminal.

The customer does not receive the shipment at the agreed time for breakdowns in the transport medium

After a study of the records of such assets is verified that in 50% of shipments to eastern packets do not arrive on time.

The customer claims a delay in the response process

The information is requested by telephone to the Matrix home based in Havana that is where there is call tracking service. In this case, three situations can occur:

- No service because there is no current (rare cause).
- Telephone system constantly busy.
- Do not respond.

Tracked shipments are recorded and those that cannot be traced, resulting in that the customer is unsatisfied most of the times he requests service at the speed at which it is executed and the result that he obtain.

Determining the importance of root causes is done via the UTI technique. The result shows that the UTI technique prioritizes and is selected by experts who work to eradicate them are:

- Inefficiencies in the mapped routes and transportation strategies
- Delays and failures in telephone contact with matrix.

The results obtained were identified causes that most affect the negative moments of the service. The improvements proposed in this research are those associated with the current routes of delivery of shipments from the office to the eastern provinces of Cienfuegos and automation to the process of receiving, handling of shipments and claims are those prioritized by specialists.

1st Improvement. Cienfuegos Roads - Headquarters - Eastern Provinces

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Improvements related to delivery route shipments are analyzed and optimized, eliminating unnecessary activities, seeking alternative solutions to recruitment service. They lie in:

To remove the reception activity in the sorting center in Cienfuegos, for in this there is no operation that adds value to the service. Result of that is that the reception is performed in the office only until 12pm. If this transfer is removed said sorting center could continue offering the service in the afternoon. Currently this is an opportunity cost to the company.

To calculate the opportunity cost of service estimate how many customers arrive on average in those times. Different types of messages, some of them are more expensive (see Table N°1) are assumed.

Table N°1: Income lost for not getting service

Indicators	Values
Average number of persons who will receive the service	3
Service Price (CUC)	
Shipping to Santiago de Cuba	20.00 MLC
Shipping to Mexico	39.00 MLC
Shipping to Germany	49.00MLC
Revenue dropped	108.00MLC

Source: Own Elaboration

- Eliminate the transfer of shipments to the headquarters in Viazul bus, which will later be redistributed to their destinations in mail transport, with an output frequency of twice a week. This proposal is estimated that you could save for the hiring of transport.

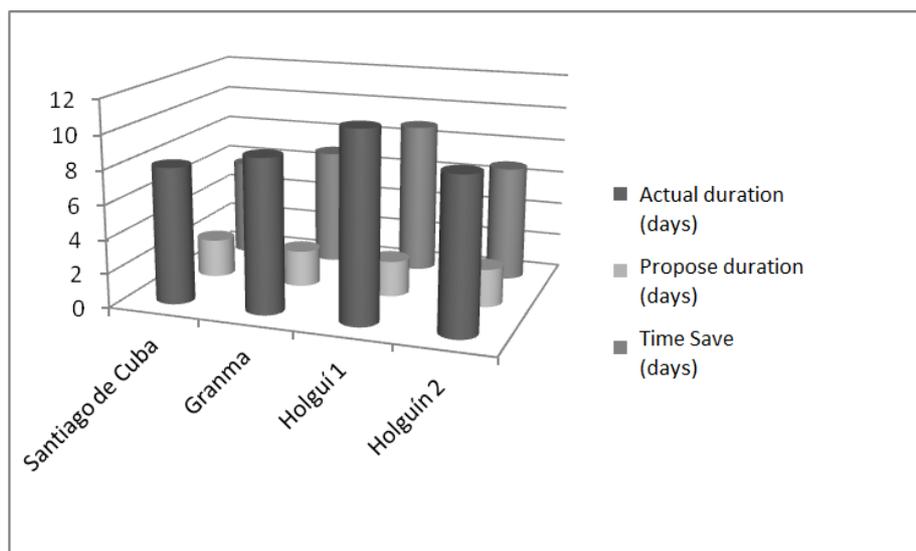


Figure N° 6: Savings in moving shipments as propose d
Source: Own Elaboration

- An analysis of how much you can save if the company does not hire the services of Viazul, is shown:

$$25 \text{ suitcases (are transported as monthly average by Viazul)} * \text{price per suitcase} * 10\% \\ = 25 * 0.04 * 10\% = 10.00 \text{ MLC monthly}$$

This represents a saving for the company per year of MLC 120.00 and can be used in other activities.

2nd Improvement. Linked delays and failures in telephone contact with the matrix

To identify, select and program improvement actions related to delays and failures in the telephone contacts, the methodology 'lean process' of Gutierrez and Wand (2007) is used. Taking as reference the steps in the activity of receiving and processing the shipment, as well as claims.

The application of this procedure shows that there are activities that can be corrected and some that can be eliminated by not adding value. There are others that do not add value, but that are necessary and can only be eliminated by automating the process networking and connecting with the matrix (see Table N°2 and Table N°3).

Table N°2: Analysis of the value flow in the process of responses to complaints

Activity	Description of activities	Activity Type	Activity time (min)
1	Client solicits information, ask for name and package code	1	2.5
2	Call DHL in Havana to request information	2	1
3	Wait (that DHL, finds the requested information	2	5
4	Exchanging information with DHL Havana,	2	8.5
5	write down the information	2	1.5
6	That the client returns to receive requested information	2	49
7	Hand over the information	1	1

Source: Own Elaboration

Table N°3: Value flow analysis on the reception and shipping treatment

Activity	Activities Description	Activity Type	Activity Time (min)
1	The client comes with the package and request the service	1	5
2	The Sales Manager's checks and weighs the packet	1	3
3	Fill in the form	1	7.5
4	Payment is made	1	2

Source: Own Elaboration

For the process under study local automation is proposed and thus the elimination of activities that represent sets of type 2. An automated process simulation show a reduction in time (see Figure N° 7), which is apparently not significant. Given that these activities are

performed frequently and taking into account that estimated with the proposal, then in total savings of time you have an economic and social impact, resulting in increased profits and meet the goals set in terms for the client.

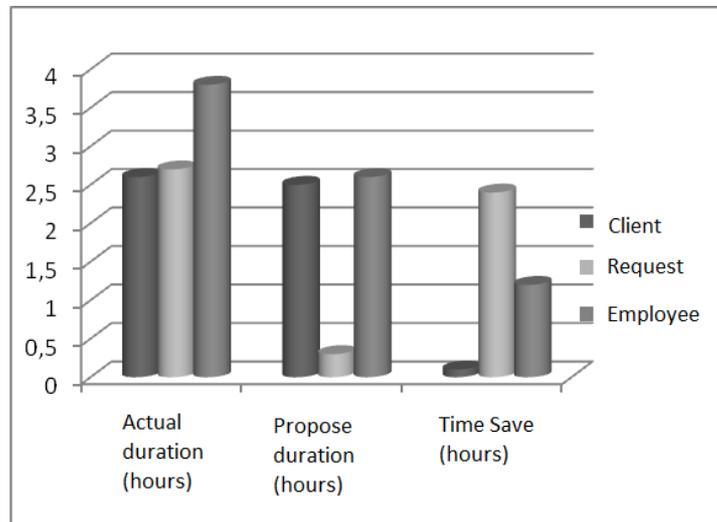


Figure N° 7: Savings from the simulation of the proposed process
Source: Own Elaboration

CONCLUSION

The combination of duty cycle, moments of truth and service triangle, formed an effective relationship to a customer-centric analysis, which when applied in conjunction with other techniques, led to the identification of problems that arise during service shipments, its causes and sub-causes, making it possible to relate them to the main customer dissatisfaction.

The proposed method provided a guide that identified the major customer dissatisfaction with the service studied, allowing propose solutions to achieve the goals, always putting the customer at the center of all research.

The main customer dissatisfaction receiving courier service Courier DHL Express, are related to the time of delivery of the shipment, the solutions given for losses and conditions arriving shipments caused by related strategies items paths and provide procedures to ensure quality service.

The elimination of non-value adding activities and automation connectivity enable compliance with the delivery of promised deliveries and give fast and reliable answers to customers.

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BIOGRAPHICAL ABSTRACT

Please refer to articles Spanish Biographical abstract.