

## Standardization of the Financial Process in a Telecommunications Company

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**ABSTRACT:** The objective of creating a company is not only to provide a service or good to the consumer, the main goal is to generate profits for its owners and/or partners. That is why the financial area functions as the backbone that works in synergy transversally with all the company's operations; For this reason, this article proposes the standardization of the financial processing of a telecommunications organization, normalizing each of its activities. The development was carried out in five stages: diagnosis applying tools such as the Vester matrix to prioritize problems, complementation of documentation, study of times, statement of indicators and assessment of impacts. The most relevant results showed an 18% decrease in task execution times and the elimination of reprocesses in the batch execution of documents and not by individual document.

**KEYWORDS:** Documentation, process standardization, impact assessment, indicators, financial processing.

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### I. INTRODUCTION

The evolution of companies has had great organizational advances, which is why strategies are implemented every day to strengthen and allow a better development of activities. Currently, the financial requirements in organizations are stricter, since they play an important role when making decisions; especially for those companies that are in sectors susceptible to sudden changes in the economy and the environment. Those who get to dominate the financial sector get to structure strategies that maximize benefits and minimize risks (Córdoba, 2012).

Having a standardized financial process is key, having flowcharts, documented procedures, instructions, among others, are recommendations to achieve order in the development of the activities that comprise the activities of each company; in such a way that it facilitates that any person who comes to perform the functions can carry out an agile and mistakes free execution (Álvarez, 2020).

The execution of procedures requires monitoring to detect errors and perform a diagnosis. However, those who carry out the process tend to do things their own way. Therefore, when gathering information for the documentation, the habits of those involved must be taken into account (Kirchhübel, Lind, Ravna, 2020).

The different sectors of the economy always seek to get greater profitability and being more competitive in the market, to have an added value that stands out and optimize resources. For this reason, they have implemented tools in their processes, as is the case of the financial sector in Colombia with the implementation of XBRL (Universal Financial Information Language) that allowed standardizing terminology in such a way that data could be understood anywhere in the world, and thus make businesses attractive for foreign investment to arrive (Londoño, 2019).

Exogenous factors can affect or benefit certain sectors of the economy. For the year 2020, a crisis caused by the Covid-19 virus pandemic was generated, affecting the sectors of fashion, hospitality and tourism, entertainment and in general products and services that were not of first necessity, not only in Colombia but also in Colombia. Worldwide, but in contrast, sectors that benefited greatly were the pharmaceutical industry, e-commerce and, above all, the telecommunications sector. Well, the pandemic generated a confinement that forced human beings to lead a virtual life, shop online, work from home, study, among others. The consumption of data in digital applications and audiovisual platforms generated greater demand for this sector, exceeding expectations and projections of growth in utility. (Velarde, 2021).

When there is no pattern, the tendency is for workers to act differently, within what they consider ideal. In this way, it is not possible to make precise analyzes (Silva, 2021). Based on the background, the importance of the normalization of the financial processing in the telecommunications sector was evidenced, which is why a study was carried out for a company of this type; clearly focused on the standardization of this area to evaluate those activities that do not add value and/or produce delays due to reprocessing. Research carried out has highlighted that the normalization of sub – process improves customer satisfaction, decreases workload and generates accurate and reliable information for decision making.

## II. METHODOLOGY

For the development of the study, a series of activities were taken into account to comply with the specific objectives proposed in this project *Standardization of the Financial Process in a Telecommunications Company*.

The methodological design of the study consisted of a quasi-experimental data collection process in three sub-processes: accounting, billing and treasury. In accounting, the activities of reconciliations, taxpayers, expenditure legislation, Closings Accounting and reports are carried out. In invoicing, the activities that are carried out are receipt, validation and Invoice settlement. Finally, the tasks of treasury, request and generation of payments. The Covid-19 pandemic brought with it measures such as social distancing, this to reduce virus transmission. (Fong, Gao, Wong, Xiao, Shiu, Ryu, Cowling, 2020). Due to the confinement generated by the spread of covid-19, it was not possible to take the time of the process in person, however a time study was carried out by experts. Table 1 shows each stage of the study and the mechanisms used for development.

Table 1. Stages of development of the study

STAGE	Study Mechanism
Diagnosis of document management of the financial process	Interview Implementation Analysis of existing documentation
Documentation of the current financial process for the validation of the contributions of the activities	Interview Implementation Review of existing documentation Meetings
To develop a time study of operations in the financial process to improve the service provision	Observation surveys Field work
Approach of indicators of the financial process for the measurement of the results obtained	Acceptability ranges Impact report
Impact analysis about the improvement of the financial process to determine the viability of the project	Studies of the financial process and results

Source: The authors, 2022

### 2. 1 Diagnosis of document management of the financial process

A diagnosis is the trend or state of the object of study in a defined context and time, through its functions and principles that characterize it as such (Vallejos, 2015). A review of the current documentation of the financial process was carried out in which the characterization, procedures, instructions, formats and flow charts were validated. Subsequently, a series of interviews were carried out with those involved to obtain information that would allow identifying the causes and problems to which a solution should be provided for effective standardization.

Once the possible causes and problems in the financial process have been identified; they were prioritized and analyzed using the Vester Matrix tool as shown below:

- P1 There is no documentation of the processes
- P2 Change of functions
- P3 Information that depends on other areas
- P4 Waste of time due to reprocesses
- P5 Staff turnover
- P6 Office tools are not used (Module)
- P7 The disclosure of changes in the process does not flow

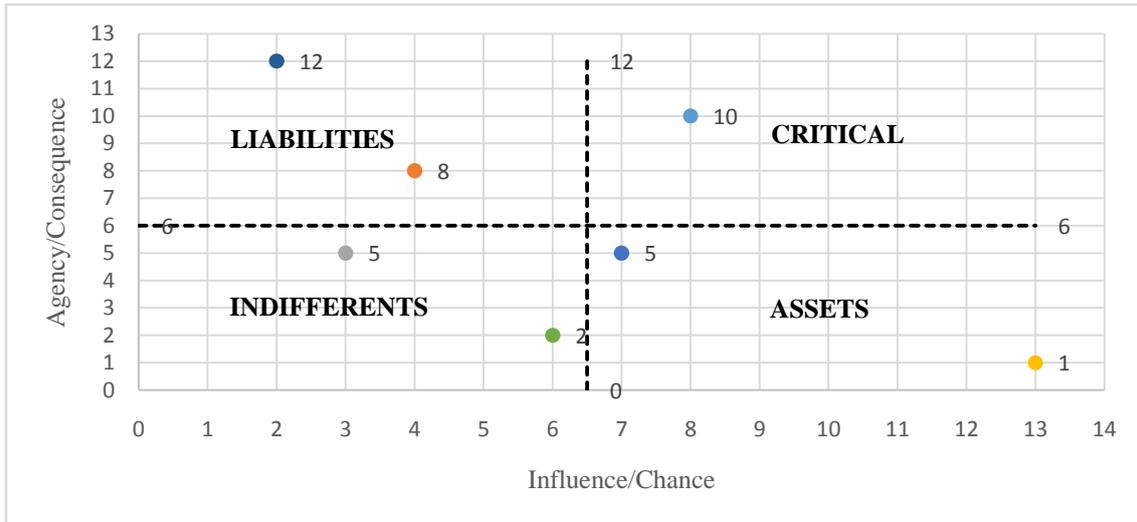


Fig 1 Prioritization of problems  
Source: The authors, 2022

Where the passive problems of loss of time in reprocessing and staff turnover were identified, which are mostly solved when the assets problems that are also identified in the matrix are intervened. Finally, it was clearly evidenced that the priority problem to take improvement measures in this case is the lack of documentation of the processes. A good diagnosis allows the organization to make the right decisions taking into account external and internal factors (Arrieta, Cervantes, De La Cruz & López, 2021).

2.2 Documentation of the current financial process for the validation of the contributions of the activities

A review of existing documents on the financial process was carried out in which what is shown in table 2 was found:

Table 2. Documentation financial process 2021

Document type	Quantity
Characterization	1
Legalized Procedures	1
Procedures in Construction	1
Legalized instructive	4
Instructive without legalization	3
Legalized Formats	9
Formats without legalization	4

Source: The authors, 2022

For the identification of non-legalized documentation, procedures, instructions and formats to be documented; scheduled interviews were conducted with each of those involved in the process. In this way, it was possible to make the documentation required for the standardization of the financial process. Once this process was completed, it was sent for review and approval by the quality area and the owners authors of each sub - process. The function of the information found in the documents is to provide knowledge on how to execute a process by providing a specific route (Grudzien, 2016). Below is the table of approved and legalized documents:

Table 3. Approved Documentation

Document Type	Description	Total Quantity
Procedures and flowchart	Accounting Procedure Billing Procedure Treasury Procedure	3

Instructive	Accounting Instructive Billing Instructive Treasury Instructive	7
Formats	Accounting Formats Billing Formats Treasury Formats	6

Source: The authors, 2022

### 2.3 Development of a time study

The purpose of a movements study is to eliminate or improve activities that could affect productivity and/or quality. It consists of determining the time required to complete a specific process, activity, task or step (Andrade, Del Rio, Alvear, 2019).

The development of the times study was carried out once the company approved the documents. Time taking by experts was used, taking as a reference the execution times of each activity in the procedures in two companies with similar functions. After collecting the information, it was compared with the execution times in the activities of the telecommunications company to then calculate a standard time. A summary of the information collected is shown in table 4:

Table 4. Time study summary

Document Type	Telecommunications Company	No 1. Company	No 2. Company
Accounting Procedure	8798 min	6490 min	8145 min
Billing Procedure	6880 min	4230 min	4410 min
Treasury Procedure	1230 min	1350 min	1510 min

Source: The authors, 2022

### 2.4 Indicators Approach

If it can't measure it, it can't be managed. If it cannot be managed, opportunities to create value, difference and sustainability over time can be lost. A relevant brand attracts the best talent, adapts easily to crisis environments and generates sustained growth (Alloza, 2020).

In this stage, indicators were proposed that would allow measuring the performance and compliance of the financial process to highlight and identify opportunities for improvement. The construction of these involves several steps, selection, normalization, weighting and aggregation in a final index. Weighting is very sensitive for index construction and can be based on statistical evaluations (Papathoma, Cristofari, Fuchs, 2019).

The indicators approved by the company with their respective objective are shown below.

- Assess portfolio status:

$$\frac{\text{Total portfolio value raised}}{\text{Total value of overdue portfolio}} * 100\%$$

- Measure the effectiveness of bank reconciliations carried out:

$$\frac{\text{Elaborated bank reconciliations}}{\text{Total bank accounts}} * 100\%$$

- Evaluate and control the percentage of invoices returned due to mistakes:

$$1 - \frac{\text{Number of invoices returned}}{\text{Total invoices issued}} * 100\%$$

- Evaluate the percentage of non-compliance due to late payment of financial obligations:

$$\frac{\text{Amount paid in interest paid for late tax obligations}}{\text{Total interest paid}} * 100\%$$

- Evaluate the percentage of penalties acquired for non-compliance with tax obligations  

$$\frac{\text{Amount paid in penalties for tax obligations}}{\text{Total tax obligations paid}} * 100\%$$

2.5 Impact Analysis

Feasibility analysis is a management decision tool that assesses the feasibility of a project concept to enable an organization to decide whether to go ahead with a project concept or reject it and thus avoid wasting resources (Ssegawa, 2021). In this analysis, the risks of the process were identified and assigned a value equivalent to the degree of severity (low, moderate, high or extreme) and they were subsequently prioritized. As shown in table 5:

Table5. Severity of Risks

Financial Process	Severity of Risks	Inherent Risk Severity (Extreme - High - Moderate - Low)
P-GF-02 Accounting Procedure	4	Extreme
P-GF-01 Billing Procedure	3,5	Extreme
P-GF-03 Treasury Procedure	3,5	Extreme

Source: The authors, 2022

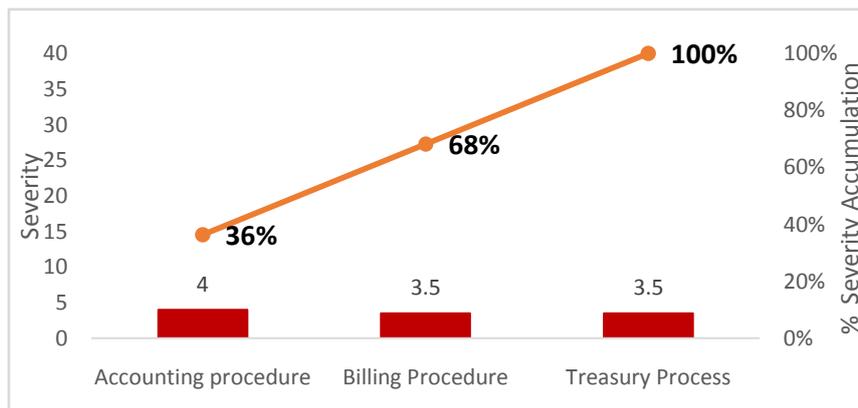


Fig 2. Risk Prioritization  
 Source: The authors, 2022

III. ANALYSIS OF RESULTS

Making a statistical analysis of the execution times of the *Financial Process* after the updating and approval of the documentation for its standardization, the following results were found:

3.1 Accounting Procedure

For the accounting procedure, eleven (11) activities were established to be executed. The runtime in the telecommunications company is 8798 minutes, taking into account that standard time study carried out for the development of the accounting procedure is 7812 minutes. An 11%-time reduction equivalent to 986 minutes.

Figure 4 shows these results.

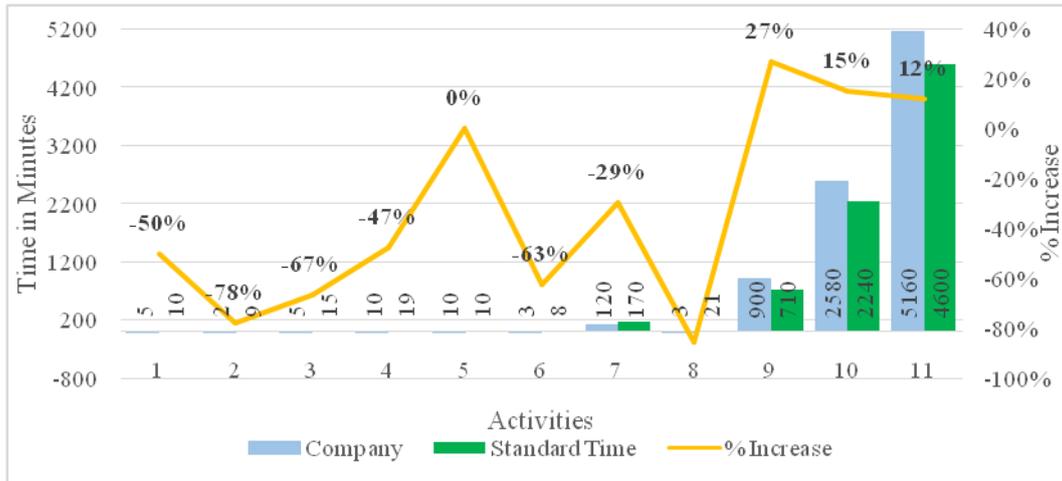


Fig 4. Execution time Accounting Procedure  
Source: The authors, 2022

It is worth mentioning that in the study of times it was evidenced that in some activities the runtime varies a lot due to the number of documents that are processed and it was estimated by average.

### 3.2. Billing procedure

For the billing procedure, nine (9) activities were established to analyze. The runtime in the telecommunications company is 6880 minutes, taking into account the standard time study carried out for the development of the billing procedure is 5173 minutes. A 33%-time reduction equivalent to 1707 minutes. Figure 5 shows these results.

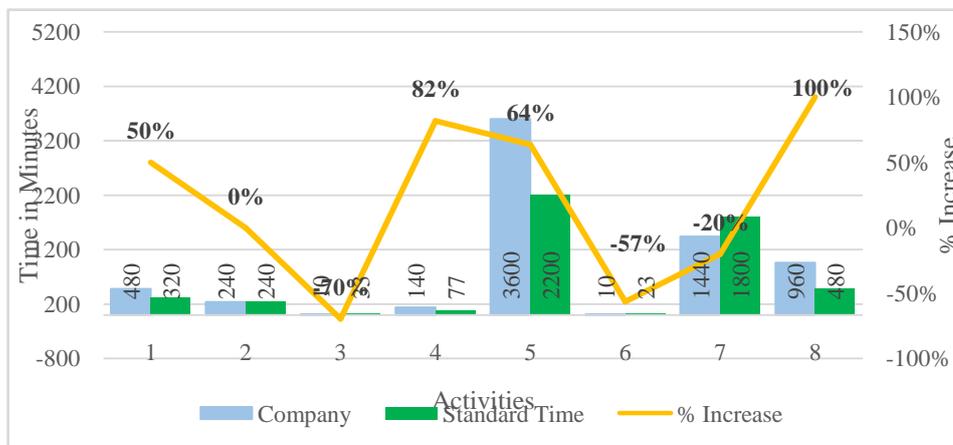


Fig 5 Execution time Billing procedure  
Source: The authors, 2022

It is noteworthy that some activities are affected by the type of software they handle, since execution times vary due to their configuration.

### 3.2 Treasury procedure

For the treasury procedure, twelve (12) activities were established to analyze. The execution time in the telecommunications company is 1230 minutes, taking into account the standard time study carried out for the development of the billing procedure is 1364 minutes. An 11% time increase equivalent to 134 minutes. Figure 6 shows these results.

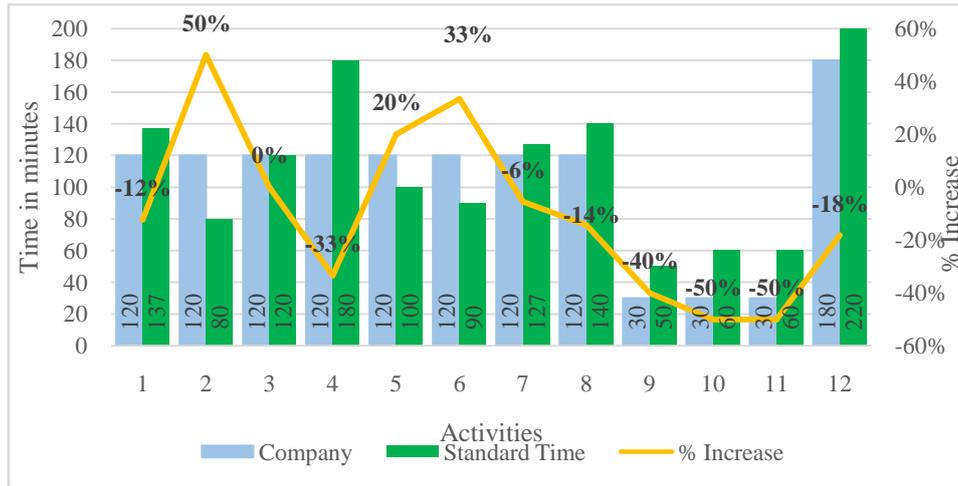


Fig 6 Execution Time Treasury procedure  
Source: The authors, 2022

In this procedure, the runtime in the telecommunications company is less than the standard time shown in the time study and it is due to the fact that the execution is done by document and not by a batch of documents, for which it was suggested to work in batches. In this way the repetitions in the same activity will be optimized and a reduction in runtime of 30% at the end of the exercise would be achieved.

Finally, the overall execution time of the financial process was reduced by 18%, equivalent to 2,561 minutes, as shown in Figure 7.

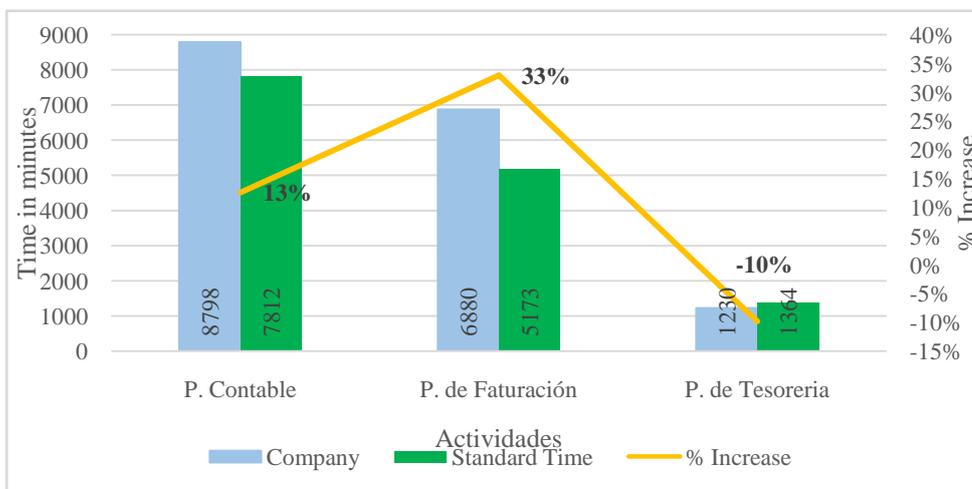


Fig 7. Execution time of the financial process  
Source: The authors, 2022

#### IV. DISCUSSION

The purpose of the project was the standardization of the financial process in a telecommunications company, working with analysis tools that made it possible to clearly and concretely determine the problem proposed, in order to propose an improvement solution. This same methodology has been used to develop other standardized processes projects, not only, financial but also administrative, operational and/or logistical. As is the case of normalization in administrative and operational processes in a university; which began with a diagnosis through interviews with a sample of those involved in the process (Reyes, 2016). For this project, the starting point was the review of the characterization and existing documentation of the financial process and, subsequently, conducting interviews with specific questions to all those involved; This made it possible to identify the shortcomings that were present.

Through the diagnosis was identified the problems of all the activities contained and a solution could be provided. In the university project, the problems identified were focused on the activities carried out by those involved who were selected in the sample and the rest were not evaluated, thus leaving a gap that did not allow a comprehensive solution to improve the process.

In two aspects, the development of this project has similarities with the standardization project in the administrative and operational processes of said university; one is the elaboration of procedures and instructions taking into, firstly, the account quality standards and secondly the proposal of indicators. However, one advantage of the project developed at the university is that in order to assess the feasibility of the project, a pilot test was carried out in one of the processes. While in the project of the telecommunications company, the viability was determined through an impact study based on causes and possible results. A study based on data has the same percentage of probability of being successful or generating opportunities for improvement, while an execution has real results, whether they are favorable or not.

With the different methodologies to determine the feasibility of implementing improvement proposals to provide solutions to one or several problems, the opportunity to carry out future research is generated to establish which is the most appropriate modality to determine the best solution versus cost-benefit. It also opens the possibility of developing studies on the results obtained after implementing a standardization proposal in favor of continuous improvement.

## V. CONCLUSIONS

The implementation of the standardization of processes allows the cost reduction of workload and the improvement in response times for both the internal client and the external client and, above all, the mistakes mitigation in the execution of activities.

Thanks to the documentary review and the interviews carried out with those involved in the financial process, it was possible to determine which documents were necessary for the standardization of the process and the updating of existing objective evidence in such a way that it was consistent with what is actually executed.

The construction of the Vester Matrix was very useful to identify those causes that did not allow the financial process to be standardized and thus be able to provide improvement solutions, prioritizing the causes on which immediate action should be taken.

The study of times allowed to demonstrate that a reduction in the execution time can be made by having the documentation of procedures, instructions, formats and other pertinent documents standardized, legalized and disclosed with those involved in the financial process. It was also possible to see a way of working in batches and not by documents, which would reduce the repetition of activities.

To continue improving the organizational management of the company, all its processes must be standardized, making the respective disclosure to those involved. This will contribute to meeting the goal of the proposed indicators and continue with the improvement of processes, with the elimination of reprocesses and the optimization of resources.

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