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simplifying lives

quality and satisfaction in public services 2015

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quality and satisfaction in public services

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Prologue

How satisfied are Latin American citizens with the public services provided by the state? The fact is, apart from anecdotal information and evaluations in some countries, very little is known about the quality of public services and the citizens' degree of satisfaction in the region. While there is an international measurement of procedures for companies in The World Bank's *Doing Business* index, there is no similar standardized measurement for the services provided to citizens.

What we do know is that Latin American citizens are generally dissatisfied. Their frustrated expectations are reflected in persistent complaints about public services in recent years. Citizens have growing expectations about the quality of these services and the integrity of the actions of public institutions. They are more demanding and better informed; at the same time, they have higher expectations of the quality of public services that the state must provide and of integrity in the management of public resources. This is due, in part, to the growth of the middle class and an ever more digitized society, born in democracy, which requires immediate solutions. It is not about spending more, but spending better.

The economic slowdown affecting Latin America and the Caribbean (LAC) makes the task of improving the efficiency of public spending and the quality of public services even more urgent. This urgency is even more intense in times of fiscal austerity and budgetary constraints. It is therefore crucial to innovate and leverage technological innovations with a view to digitizing and simplifying public procedures. Innovation has to be at the heart of the reinvention of the modern state and the modernization of the public administration, above all because LAC is a region where the degree of institutional development does not match economic development and where middle-income emerging economies predominate.

In this context, the state's actions need to focus on citizens. The exhaustion of public management models constructed under the traditional logic of Weberian bureaucracy are being experienced. The "fourth revolution" of reinventing the state, which John Micklethwait and Adrian Wooldridge wrote about, represents a real Copernican revolution for bureaucracy that goes beyond the managerial revolution of "new public management." In this context, regulatory reform and administrative simplification take on a new dynamic focused on achieving a more responsive state and de-bureaucratizing public actions to service citizens. The dawn of the digital transformation of LAC as a lever for the urgent modernization of the public administration has been reached. In this transformation, technological innovations are the engine of the change needed to integrate the citizens' perspective and open the way for better participation and greater accountability. The new technologies and expansion of social networks are closing the gaps and information asymmetries between citizens and the state. This relationship, historically asymmetrical, is becoming less unequal. In this sense, the digital state is an open state.

Improving the lives of people means simplifying them; that is, reducing transaction costs between citizens and the state, both nationally and locally. The Simplifying Lives initiative of the Inter-American Development Bank (IDB) is a response to this need for measurement as a means of improving the quality of public services in LAC. The aim of the initiative is to generate evidence, improve measurement, and stimulate reform of bureaucracies in LAC; in short, to renew the social contract between citizens and the state.

This study is part of a broader knowledge agenda, promoted by the Institutional Capacity of the State Division of the IDB, on the potential of the digital revolution in the states of the region to improve the efficiency, effectiveness, and transparency of their services to citizens.

The Simplifying Lives initiative originated after establishing the existing lack of evidence of the quality of the transactional services that states provide to citizens and, in particular, what aspects users value most and what actions need to be taken to improve each service. This first study presents the analytical framework used to measure the quality of public services and proposes a measurement of their quality and of citizen satisfaction. To do this, it integrates objective dimensions (such as time, cost, and complexity) and subjective dimensions (such as expectations and satisfaction). The study presents the results of the analysis of the six transactional services that are most important for people (disability benefit, request for medical appointment, theft report, birth registration, enrollment of a child in a public school, and renewal of identity document) in six countries (Chile, Ecuador, Panama, Paraguay, Trinidad and Tobago, and Uruguay).

The report shows that simplification and digitization of public procedures are critical to improving not only the quality of services but, more fundamentally, confidence in the state. The expansion of digital government in most of the countries in the region has focused on improving the efficiency and effectiveness of procedures by increasing access through customer service centers and multiple channels, especially, online. However, further efforts are required to improve quality. This report confirms the fact that citizens are demanding higher quality services, and that the interoperability of public records and information systems is critical to optimize the benefits of online services and to simplify procedures. The Simplifying Lives report analyzes the relationship between citizen satisfaction and adoption of technological innovations by the service provider institutions, and proposes a more systematic consideration of the degree of citizen satisfaction as a key indicator for evaluation of the results of public institutions.

This initiative is not only innovative because of the topics covered in the first measurement of citizens' experience of receiving services, but also because of the use of the Facebook social network as a survey instrument. In a region where growth in participation in social networks is outpacing the world average, their use for impact studies seems certain to increase.

I want to conclude with a special mention of the leadership of Alejandro Pareja from the Institutional Capacity of the State Division who heads the Simplifying Lives initiative, and the contributions of the other authors of this report, Cecilia Fernández, Bárbara Blanco, Khatarina Theobald, and Alejandra Martínez. I am also grateful for the support of Santiago Levy, Vice President of Sectors and Knowledge, and Ana María Rodríguez, Manager of the Institutions for Development Sector of the IDB,

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We hope that the methodology presented and the results of its implementation in the pilot cases will be useful to both service managers and citizens. The task of reforming the state and modernizing public administration is not a definitive work but, rather, a never ending task. Our highest hope is that wherever challenges are identified, these results will be used to initiate actions of improvement and that our work will contribute to improving lives.

Carlos Santiso

Division Chief of the Institutional Capacity of the State Division
Inter-American Development Bank

Introduction

The Simplifying Lives project is part of the digital innovation agenda of the Institutional Capacity of the State Division (ICS) of the Inter-American Development Bank (IDB). The goal of the project is to contribute to improving public services by developing and applying a methodology to measure quality and satisfaction with transactional services, which can be used as a benchmark for the whole region.

The relationship between the state and citizens is one of the core aspects of public administration. Are the services reaching all who need them? Are they provided with equity? Are they of good quality? Are citizens satisfied? These questions, among others, help to guide public policies and programs.

The conventional wisdom seems to indicate that public services are generally of poor quality and that citizens are dissatisfied and demand improvements. This type of demand is usually presented as a relatively new situation, driven by the arrival of the information society: citizens are now more informed, more aware of their rights, and increasingly willing to make their voice heard. As a result, they can exert greater power through new channels of communication and relationship with government. Consequently, the historically asymmetrical relationship between citizens and the state is becoming less unequal.

In addition, the socioeconomic improvements experienced in Latin America and the Caribbean (LAC) in recent decades have led to an increase in the proportion of people whose basic needs have been met. As a result, citizens now have higher expectations regarding the quality of the services they receive.

The two elements—greater availability of information and higher expectations—have resulted in greater pressure on governments to improve both the services they provide and the way they interact with citizens. However, what evidence is there of poor quality and the resulting citizen dissatisfaction? What are the supporting facts that policymakers and service managers have at hand to make decisions to correct the situation? How could the current situation of public services be expressed in quantitative terms? And, more specifically, in which sectors of government do we find the main weaknesses? What do citizens value most in each service? And, what aspects of management need to be strengthened in order to achieve the greatest impact on citizen satisfaction?

There is greater pressure on governments to improve both the services they provide and the way they interact with citizens.

It is not easy to find objective answers to these questions. Consequently, the dialogue about quality and satisfaction that is somehow taking place among governments, officials, civil society, and citizens does not have a quantitative support. A first step in resolving these tensions should be to agree on new criteria to, as objectively as possible, determine the levels of quality and satisfaction for each service.

Quantitative studies of customer satisfaction have a long history in the private sector. Indeed, in some countries—such as the United States, Canada, and New Zealand—studies of citizen satisfaction with public services are well established. In LAC, initiatives such as Latinobarómetro or The World Bank's *Doing Business* report suggest that there are challenges of quality and satisfaction in relation to transactional public services for citizens. Latinobarómetro studies generic satisfaction with central and local government services. Using a composite index that includes five central and six municipal services, the study concludes that, on average, Latin Americans are dissatisfied with public services (5.1 points on a scale of 0 to 11).[1] The World Bank *Doing Business* report studies the quality of transactional business services. Of the 189 countries surveyed for the 2016 report, only two IDB member countries were among the top 50, 11 were ranked between 51 and 100, while the remaining 13 appear with rankings below 101.[2] This reflects a region with an onerous bureaucracy, numerous requirements, high delivery and regulatory compliance costs, and long processing times.

Although public services have been studied for several decades, scant attention has been paid in the region to the critical node where citizens and public service providers meet each other: the procedure.[3] The procedure is a transaction whose purpose is to comply with some legal obligation or to apply for a permit, service, or benefit. As such it becomes a prerequisite for accessing various services, ranging from legal identity to education and health. In some cases, formalities involve a considerable amount of time loss for citizens. For example, a recent estimation shows that in Italy citizens spend 400 hours a year dealing with processes.[4] The impact on people's lives is so significant that a thorough understanding of this dynamic is needed.

However, apart from the particular cases, at the regional level there is still no standard measurement of the quality with which services are delivered to citizens or of the satisfaction the citizens experience when receiving the services. Further, there is no clear understanding or measurement of the drivers that determine quality and satisfaction.[5] As a result, the discussion about the quality of transactional public services has moved essentially in the field of feelings and opinions; many modernization programs and projects are being undertaken based on the instinct of decision makers about quality and satisfaction. Very often much work is done without knowing for certain what citizens' expectations are and what improvements they value most. In addition, it becomes very difficult to evaluate the impact of the executed projects. This reduces the capacity to determine conclusively whether a public investment was appropriate and, thus, the possibility that institutions can be accountable to users on these issues.

[1] Latinobarómetro Report 2011 (pp.102–05). This study does not focus on the transactional aspects.
[2] World Bank (2016); accessible at http://www.doingbusiness.org/rankings.
[3] This paper uses the terms "procedure" and "transactional public service" interchangeably.
[4] http://www.economist.com/news/europe/21695055-italian-red-tape-means-jobs-those-who-stand-line-worth-their-wait-gold?fsrc=email_to_a_friend.
[5] There are specific exceptions. For example, in Uruguay it is compulsory for health care providers, both public and private, to measure citizen satisfaction. In Chile, measuring citizen satisfaction is institutionalized for the Civil Registry and its results are legally linked to extra pay for officials. However, there is no standard for measuring citizen satisfaction at the national level (and, therefore, at the regional level), nor do the available methodologies consider the quality of provision and its link with satisfaction.

The methodology of this study was designed in such a way that the metrics of quality and satisfaction are universal; that is, applicable to all transactional services provided in any country. The fact that a measurement is involved means that the study is attempting to obtain an objective description (quantitative) of the material being analyzed. This monograph presents the methodology and results, which are validated by means of a pilot implementation. It should be noted that, although it is an original initiative, its construction is based on other projects that measure the quality and satisfaction of services, namely: (i) American Customer Satisfaction Index (ACSI), (ii) Common Measurements Tool (CMT), (iii) the EFQM (European Foundation for Quality Management) excellence model (European Foundation for Quality Management), and (iv) the Baldrige Excellence Framework.

For the purpose of this study, the basic unit of analysis is the procedure. To test the methodology, the set of procedures associated with the main life events was considered, and six were selected from that list:

- Applying for a disability evaluation or a disability allowance (*disability allowance*).[6]
- Obtaining a doctor's appointment in the public health system (*obtaining a doctor's appointment*).
- Reporting a burglary or larceny (theft), where the victim was not hurt (*reporting a theft*).[7]
- Registering a birth (*registering a birth*).
- Registering of a child in a public school (*school registration*).
- Renewing an identity document (*renewing an ID*).

These services were studied in six countries: Chile, Ecuador, Panama, Paraguay, Trinidad and Tobago, and Uruguay. This group of countries is intended to be a representative sample of the diversity of the institutional, social, and economic situations in LAC.

The analysis aims to measure the quality of transactional services from the perspective of the institution and from that of the citizens who apply for them. Hence, each procedure is analyzed from two perspectives: an internal and an external view. A very brief methodological description follows, which is completed in the next chapter.

*

So far the discussion about the quality of transactional public services has moved essentially in the field of feelings and opinions.

[6] As explained in the section about this service in Chapter 2, in some countries the assessed service was "applying for a disability assessment," while in others it was "applying for a disability allowance."
[7] The terminology used in different countries does not fully coincide, thus both terms—theft and robbery without physical violence—are used here. Annex 1 gives the strict definition of the service analyzed.

The purpose of the internal view is to understand how the institution provides the service. For this, the following dimensions are analyzed: (i) administrative process, (ii) human and material resources allocated, (iii) information technologies (IT) used, (iv) management model and regulation, and (v) citizen relationship model. The view is structured into 22 variables, grouped into the five dimensions mentioned, with which the management quality index is composed.

The external view describes the citizens' experience when receiving the service. The analysis uses four key variables: (i) expectations, (ii) satisfaction, (iii) trust in the providing institution, and (iv) trust in government. These variables are supplemented by a set of 16 variables (known as drivers of satisfaction) that represent characteristics that explain satisfaction. These variables are grouped into the following dimensions: (i) process: covering time, travel, costs, and utility perceived by citizens; (ii) performance of customer service officials and treatment received; (iii) comfort of service centers; and (iv) access to information on the procedure. An analysis of these variables identifies what determines the level of satisfaction.

The data on the internal view were obtained by a questionnaire and a personal interview with the managers of each service. The data on the external view were obtained through an online survey convened through Facebook. This technique was chosen because it meets the design principles and because it was considerably less expensive.[8] The aim was to have 400 informants per service in each country,[9] with minimums per service in terms of gender, age, and geographical location. In total 11,504 valid responses were obtained for the 36 services.

Given the innovative nature of the method of invitation through Facebook, the results were triangulated with a face-to-face survey in Paraguay for three of the six services. The results of both measurements for the key variables were similar.

This dual internal and external view offers the possibility of identifying links that exist between management of the service and citizen experience. Thus, when citizen satisfaction is optimized, it will be possible to use data to back the decisions taken on the strategies of modernization and administrative rationalization to be adopted. Thus, governments will be acting more intelligently by investing in what citizens need most and avoiding the waste of resources on projects that citizens will not appreciate, likely producing better results with the lowest possible budget.

To this end, the aim was to make the information on the outcomes of the Simplifying Lives project actionable; that is, Simplifying Lives should answer three basic questions:

- **Where to start:** Identify the services that require most assistance. This information is obtained from the comparison of the performance of the different services in terms of quality and satisfaction.

[8] The cost of implementing the measurement is critical for its regular application.
[9] The exception was Trinidad and Tobago where the target was 200.

• **What to do:** Identify which aspects need to be improved in each case. This information is obtained by analyzing the importance of attributes of satisfaction.

• **How to do it:** Identify investments, types of projects that need to be implemented, or improvements in the management of services that would have most impact on citizen satisfaction. This information is obtained by analyzing the relationship between the internal and external views.

This study consists of three chapters, including a methodological summary, supplemented by various appendices; results of the proof of concept, considered at the regional level, by service, and by country;[10] and conclusions and general policy recommendations derived from the results.[11]

This document should be considered the starting point for an aspect of public management in LAC that until now has been practically uncharted territory. It is expected, therefore, that new developments and studies will come out of this work.

Key Results

The main results from this study are set out below. It should be noted that they consist of regional averages. With the data collected, analogous results for the same variables can be considered for a country or a particular service (more details are included in Chapter 2).

• There is dissatisfaction with transactional public services in the region, both in absolute terms and relative to other regions. Regional average satisfaction with transactional services was 4.8 (on a scale of 1 to 10). This level is below the indifference point of the scale (5.5) and is much lower than the satisfaction of US citizens with the services of the federal government (64 on a scale of 0 to 100).[13]

• The regional average of expectations prior to receiving the service is 4.6, which is below the midpoint of the scale (5.5). This midpoint indicates where expectations match what was received. The conclusion is that citizens are receiving a higher level of service than they expected.

• Internal quality and citizen satisfaction show significant variations between different services. Renewing an ID received the best average rating in both quality and satisfaction (6.5 and 5.8, respectively).[14] In contrast, *disability allowance* received the lowest average rating for quality (4.7), while reporting

[10] The information is presented only in regional averages. The same analysis can be applied analogously to each country or service.
[11] The project identifies aspects of management of services that could most contribute to improvement, but it does not include what would be the next step: a specific action plan or policy recommendations for each case. The analysis for each service in each country will be included in future documents as supplements to the project.
[12] Using a scale with an even number of values (10) eliminates the possibility that citizens choose a neutral rating: there are five negative ratings (1 to 5) and five positive ratings (6 to 10).
[13] See the assumptions behind this comparison in the General Results section in Chapter 4.
[14] Unless specifically noted, all averages are simple.

a theft received the lowest average rating for satisfaction (3.6). Considering averages by country—not by service—average quality fluctuates between 4.2 and 7.0, and average satisfaction between 4.6 and 5.1.

- In the regional average, the three most important attributes for citizen satisfaction are (in order of importance): (i) total processing time, (ii) diligence of officials (not causing unnecessary delays), and (iii) impartiality (fair treatment). At some distance these are followed by: (iv) comfort of the service center, (v) empathy of officials (consideration of special cases), and (vi) professionalism of the officials (i.e., their knowledge).

- The online channel is barely used for transactions. The analyzed services are provided basically in person, even when they could be provided through the online channel, at least partially. A total of 41 percent of respondents in this study would have preferred to carry out procedures via the Internet.

- Calculating the correlation between citizen satisfaction and each dimension of quality (process, resources, IT, management and regulation, and citizen relationship) indicates that the strongest link is with IT management and with the institution's relationship with citizens. This could indicate that improving management of these two dimensions would lead to better satisfaction results.

- The regional average for trust in the service provider institution was 5.9. This is the only key variable with a positive average score (above the mean of the scale). This suggests that either the institutions have had a good track record that could be at a turning point or that the good reputation has been built based on other services or on non-transactional aspects of the service.

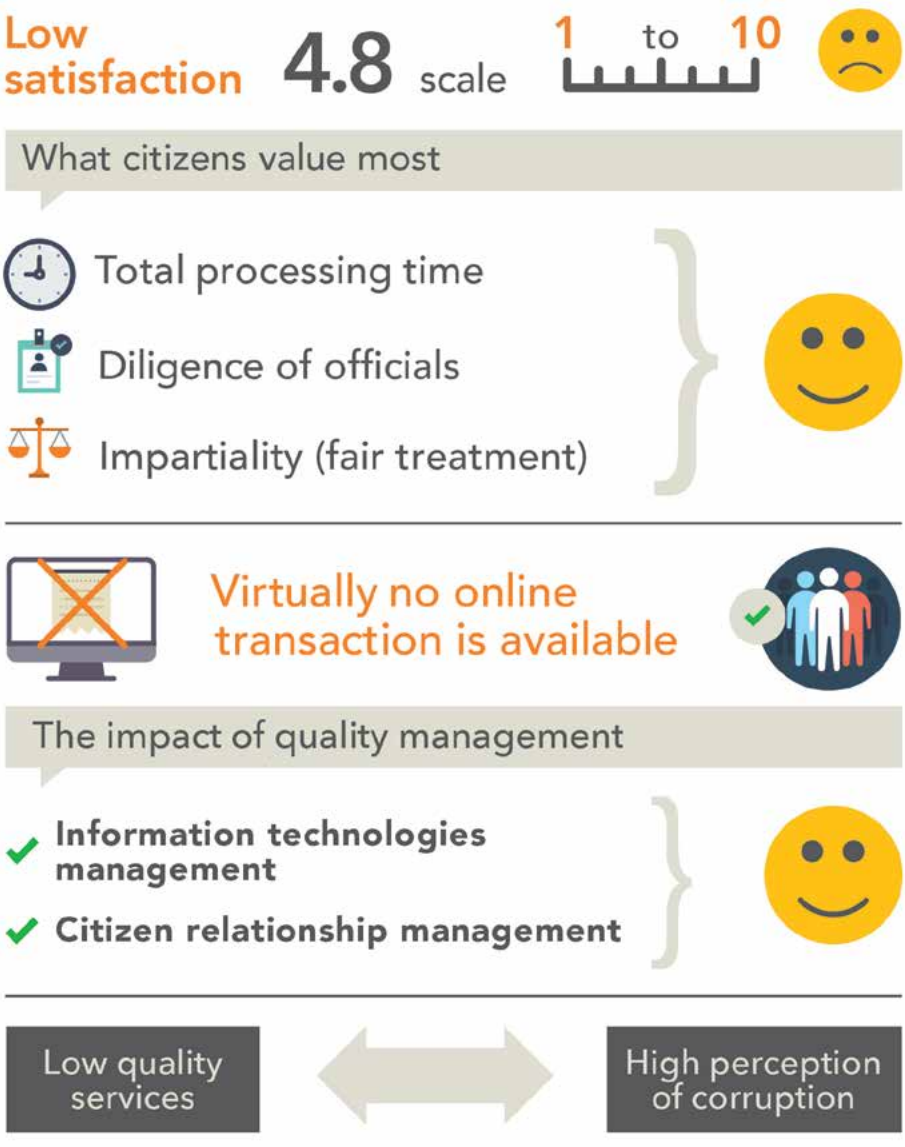
- The regional average of trust in government was 4.7.

- A strong correlation (0.70) between the quality of services and perception of corruption was observed.

- A slightly greater satisfaction was identified among women than men.

A slightly greater satisfaction was identified among women than men.

Quality and Satisfaction with Transactional Services in Latin America and the Caribbean



Methodological Summary

The Simplifying Lives project aims to measure the quality of transactional public services (or procedures) made by citizens. The measurements should provide service managers with evidence to help them determine for which services a strengthening action needs to be prioritized, what aspects of each service are more valued by citizens, and what aspects of management contribute more to improving citizen satisfaction.

This study's basic unit of analysis is the procedure, which can be the core of a service (e.g., renewal of an ID) or an instrumental activity, that is, the gateway to a more important service (e.g., obtaining a doctor's appointment in the health service). To measure the quality of transactional public services, a new specific methodology was developed, which is made up of the components listed below. Each component is described in a later section of this chapter:

- Design principles.
- Description of the basic concepts of the model.
- Structure of the theoretical model (set of dimensions and variables used to construct the measurement of quality, satisfaction and the other external variables).
- Description of the two views that compose the model.

Design Principles

The principles on which the design of the methodology was based are described below: citizen-centered, territorial diversity, objectivity, universality, actionability, comprehensiveness, comparability, adaptability, periodicity, and feasibility.

Citizen-centered: The transactional services to be analyzed are services provided to citizens (i.e., natural people), which differs from other methodologies that focus on business services (e.g., *Doing Business*) or other types of organizations.

Territorial diversity: The quality of public services tends to vary considerably across a country's territory. In many cases, this situation may reflect inequities in the coverage and quality of services, evidenced in longer waiting times, more need to travel, and higher costs. The study has to reflect this diversity, attempting to cover all points of service in the country and all contact channels available. Apart from implying significant methodological requirements, this is a differentiating factor of the project.[15]

Objectivity: Quality and all key features must be expressed in numerical form. The adoption of this principle derives from recognizing that the first step in determining whether the quality of a service is good, fair, or poor is its objective characterization. The benefits of a methodology that complies with this principle are:

- Allows comparability between services.
- Allows monitoring of the evolution of a service.
- Allows governments, civil society, officials, and citizens to establish a dialogue on firm foundations about the quality of services, leaving aside generally accepted impressions that are not supported by evidence.

It may be striking to adopt the principle of objectivity in a study that includes satisfaction among its pillars, since this is a concept that is generally conceived as subjective. However, the point to consider is that when citizens are asked to rate

[15] Other studies characterize the object of measurement at the national level, considering only what happens in the main city of the country or in major service centers, extrapolating the result to the rest of the country. In these cases, no effort is made to identify territorial diversity.

their satisfaction, they are, in fact, being asked to measure it. Each citizen reports the rating they assign to their experience based on an assessment of both objective and subjective factors. However, the individual subjective component can be minimized by taking into consideration appropriate measurement scales and the potential sources of bias arising from the subjectivity. This is known as objective measurement of a subjective phenomenon (Widaman, 2011). The statistical averages further reduce the effect of possible individual biases.

Universality: It is important to emphasize two important features of public services: (i) that all services (education, health, citizen security, etc.) include transactional activities, and (ii) that, since in all cases transactions involve management of information and citizen relationships, the problems and challenges presented by transactional services are the same for all services, irrespective of the specific nature of each. These two characteristics mean that it is possible to define a universal methodology to measure the quality of all transactional services.

Actionability: The expected impact of the Simplifying Lives project is that service managers will use the measurement results to make decisions regarding the design and planning of service improvement programs. To this end, the information produced must be translatable into actions.

Considering that there are always budgetary constraints, with each proposal competing for scarce resources against other projects, governments are forced to prioritize interventions. A quantitative study of quality and satisfaction levels offers an approach that will allow them to identify which service they should start with, and the type and size of the solutions that need to be applied. It will also contribute to the objectivity of the process of prioritizing investments and optimizing the cost–benefit relationship of the implementations.

When the decision is made to execute a particular project, it is because a specific outcome is expected. Consequently, whenever a decision is made, a cause–effect relationship is being assumed, so it would be desirable to identify causal relationships between, on one hand, the characteristics of the production and delivery of the service and, on the other hand, the satisfaction that citizens experience. The methodological limitations of this study do not permit the precise determination of the cause–effect relationships. Even so, the statistical analysis and the correlations between the internal and external variables permit identification of links that might indicate possible cause–effect relationships.

In order to determine what it is that citizens value most, the study defines the factors that determine satisfaction, that is, its drivers (time, complexity, treatment, access to information, etc.). In addition, it is necessary to understand how each driver affects citizen satisfaction. Hence, actionability implies that the objective is not only to identify a level of satisfaction but also to offer indications as to how it can be improved. In this respect, the tool should indicate: (i) what the priorities are and the services that require more assistance (information obtained from comparing the performance of different services within a single country and similar services in other countries), (ii) what aspects of each service need to be improved (information obtained from the analysis of the importance of drivers of satisfaction), and (iii) what investments or types of projects need to be implemented (this information comes from the analysis of correlation between internal and external views, as explained below).

Comprehensiveness: The methodology has to be comprehensive in the sense that it must cover the study of both the views present in the provision of a service:

- The quality of delivery from the institution's point of view (internal or supply view).

- The quality according to citizens (external or demand view). In this methodology it is termed citizen satisfaction.

The study must also analyze the link between the two. Comprehensiveness thus defined is one of the key innovations offered by this study. Methodologies similar to the one defined for the Simplifying Lives project either consider satisfaction as one more variable, without analyzing its relationship with the internal variables, or only analyze the external variables. Studies that consider only the external view[16] assume that such a perspective is sufficient for service providers to know what appropriate improvements need to be implemented. However, in the LAC region, where institutions are relatively weaker, this information needs to be supplemented with an internal analysis based on good management practices.

Comparability: The value of the model is enhanced if it becomes a standard tool for a range of services and countries. Comparisons between different services within a country (taking into account, of course, their different natures) result, among other things, in identifying good management practices at the national level and possible asymmetries in the budget allocation they receive. Moreover, comparisons between countries for the same service can be used to identify regional good practices that the other countries can take as a reference.

To guarantee comparability, the measurements must be taken consistently and meet the following conditions:

- Set a homogeneous demarcation for the subject of measurement (the procedure) to eliminate the effect of supply variability across the region. For the same service, the caseload can comprise: different provider institutions, different procedural requirements or workflows according to the particular situation of the applicant, or different delivery channels.[17] This caseload is multiplied if we take into account the variability that can occur over time and between countries. As a result, it is necessary to find a precise definition of each transactional service to be analyzed, unique for all countries. This definition must include a description of the event that starts the provision of the service, the event that concludes it, and the specific result that characterizes the procedure. This homogenization process must identify which of all variants of a service is the most representative, excluding the special cases (Annex 1).

- Use the same questionnaire, adapted solely on the basis of linguistic differences proper to each country.[18]

- Apply uniform sampling criteria.

Adaptability: The model must be adaptable to the different social and institutional realities of the LAC countries. Consequently it is necessary to ensure that:

- The measurement considers possible differences that can occur in different countries.[19]

- The definition of the set of quality and satisfaction attributes is sufficiently flexible to be adapted to the different types of services in the region.

- The survey questions are adapted to each country's local linguistic specificity to ensure comprehension by respondents.[20]

- The model can be applied to the three levels of government (national, subnational, and municipal agencies).

Periodicity: Although the measurements can be made in isolation, their benefits increase if applied periodically. The ideal is to institutionalize the measurement for use as an instrument to evaluate continuous improvements.

It should be noted that the subject to be measured is not static. The elements that constitute the quality and satisfaction of citizens vary from one region or country to another and as societies evolve.

[16] Annex 7 includes examples such as American Customer Satisfaction Index (ACSI) and Common Measurements Tool (CMT).
[17] For example, in applying to renew an identity document, if the application is made on national territory, the procedure is standard; if the application is made from outside the country, it is considered a special situation.
[18] Specific questions are permitted for a particular service in some countries; however, these questions are not included in the statistical analysis.
[19] The factors influencing citizen satisfaction can vary by region, country, and even at the level of provinces/regions/departments.
[20] The possibility of providing the external survey in all the official languages of each country and not only the main one can be evaluated.

Therefore, periodic measurements are needed to identify changes in the needs of citizens.

These changes mean that the model has to be fine-tuned. The flexibility of the proposed measurement framework allows the model to incorporate new services and new countries, and to update the drivers of satisfaction. A proper management model will ensure inclusion of changes without jeopardizing the integrity or value of the historical data.

Feasibility: One of the difficulties that a project of this type can face is funding. If the cost of implementing the methodology is unreasonable, the theoretical exercise of its design will not have any practical effects. Therefore, care must be taken to use techniques with a good cost–benefit ratio. This could involve a compromise solution between the degree of accuracy and the allowable budget. If this solution is not achieved, periodic execution will not be viable.

Basic Concepts

This section describes the main concepts of the methodology's structure.

Quality and citizen satisfaction: The concepts of quality and satisfaction with respect to services or products, like many other concepts now common in public administration, originated in the private sector. Their definitions are closely interlinked to such an extent that some authors consider them the same concept (Jaráiz Gulías and Pereira López, 2006).

Irrespective of the diversity of the definitions and the theoretical proposals for their measurement, there is consensus on certain elements:

- Rating of services must not be limited to effectiveness and efficiency in terms of their processes, but must also take into account the value judgments of the people receiving the service.

- Research on citizen satisfaction must include identification and analysis of the variables driving it (Moliner, Berenguer, and Gil, 2001). Among the drivers of satisfaction, expectations prior to provision of the service play a prominent role. These drivers are usually identified through focus groups.[21]

Quality: Quality has several definitions (Reeves and Bednar, 1994):

- Degree of conformity of a product or service with its previously documented specifications.

- Degree of fitness of a product or service for the use or purpose expected by customers.

- Degree of superiority (or excellence) (González Simancas, 1991)—in reliability, durability, materials, number of defects, etc.—that a product or service has over another produced for the same use.

With respect to quality, this study focuses on analyzing quality management systems. That is, the study looks at institutional structures, policies, and business processes (including the resources and technologies applied in their execution) that each organization defines in aiming to provide quality products and services, understood as a high degree of fitness to citizens' needs.

Citizen satisfaction: Satisfaction can be defined basically as the valuation that customers make of their experience on receiving a product or service. This valuation may or may not include price, the purchase transaction, delivery, performance once in use or consumed, prior knowledge, etc. (Zeithaml, Parasuraman, and Berry, 1993; Johnson and Fornell, 1991).

[21] Focus groups have not been used in this project. Instead, the knowledge generated by similar projects has been used, adopting drivers that are common to all the methodologies analyzed for the model.

It is worth mentioning that the specific nature of each institution affects the level of customer satisfaction. It is very likely that an agency that is primarily involved in administering benefits or maintaining parks has satisfaction levels above others that perform regulatory functions such as tax collection. The nature of each agency's mission affects citizen expectations and, consequently, the subsequent perception of the quality of the service.

For the purpose of this project, the study of citizen satisfaction requires three variables be defined: explicit, implicit, and predicted satisfaction.

Explicit satisfaction: The satisfaction level that each informant states they have in response to the following direct question: "In general, how do you rate the degree of satisfaction of the experience you had with the service" (question PG_3).

Implicit satisfaction: The study's target variable of the study; thus, what this methodology takes as citizen satisfaction. It is obtained by averaging explicit satisfaction (PG_3) with the distance that citizens perceive between their experience and what they consider an ideal service. This concept (distance to ideal) is summarized in question PG_6: "The quality of service could be improved ..." Based on the way the question was structured, the formula is:

$$S = \text{ROUND}\left(\frac{SE + (11 - C)}{2}\right)$$ [22]

where:

S = satisfaction.
SE = explicit satisfaction (response PG_3).
C = distance to a service of ideal quality (response PG_6).

The reason explicit satisfaction is not considered representative of actual satisfaction (i.e., the reason it was necessary to define implicit satisfaction) is that, in responding to the explicit question, informants usually consider only some aspects of their experience—those they remember most—forgetting important aspects that left no lingering impressions in their memory. By adding a question that makes them think of an ideal, informants may include aspects not considered in the explicit question (MORI Social Research Institute, 2002).

Predicted satisfaction: This is simply the output of the predictor model built into this project, which predicts the satisfaction there would be for different driver scenarios.

Expectations: Expectations are the image, conscious or unconscious, that citizens have of the experience they will have with the service prior to receiving it. Respondents are asked to compare the real experience with the one they expected. It is interesting to analyze how each of the three situations that can arise should be interpreted: expectations higher than, similar to, or lower than the real experience.

When expectations were higher than the actual experience, citizens felt frustration. In this case, the institution needs to implement actions to improve satisfaction.[23] In contrast, when expectations are lower than the experience, citizens have a pleasant surprise. One could think that this is the ideal situation. However, what really happens is that low expectations tend to drag satisfaction down. This is because people often, unconsciously, resist changing the judgments they have formed; therefore, the image that stays with them will be worse than what they actually experienced (Morgeson III, 2014).[24] In this case, service managers should consider actions to correct the situation. The conclusion is that expectations should be reasonably aligned with the real quality of service.

It may be that expectations are below reality because citizens formed their expectations with

[22] Rounding was incorporated to force variables to have integer values. Conceptually, it is a definition as valid as one that does not include it. The need for integer values is derived from the use of the variable in the predictor algorithm, since it improves its dynamics (it converges more quickly).
[23] An attempt could also be made to reduce expectations. The problem is that the service provider can only partially affect expectations. This is because citizens base their expectations on their knowledge of the provider in question and other providers, both public and private. If other providers have high standards, it will be very difficult to lower citizen expectations.
[24] In addition to the negative effects on satisfaction, it should be considered that low expectations reflect a negative view of government, public goods, the institutional capacity of the country, and, in some sense, its capacity for development. Therefore, governments need to try to reverse the negative views that do not correspond with reality (which should be much easier than reversing those that do correspond).

incorrect information. This could be a problem of institutional communication, very common in the public administration. The symptom is that the institutions may be working relatively well but citizens are not aware of it. The mistaken image could also be explained by a diversity of quality levels in the public sector (a fact that this study will confirm). It is difficult for citizens to have information on how each office is working so they tend to create a uniform level of expectations for all of them. In this case, the services negatively affected are those with better performance.

Trust in the provider institution and trust in government: It may seem surprising that a study on quality and satisfaction includes an analysis of trust; however, there is a link. When trust in institutions increases, citizens will be more willing to comply voluntarily with regulations and, as a consequence, the government will be able to reduce the intensity of its controls. Moreover, increased trust facilitates cooperation between society and government when aiming to improve the performance of public services. All this will be reflected in simpler regulations and, ultimately, in a reduction in transaction costs. It is easier (and cheaper) to govern in a context of trusting citizens than in one where they do not trust (Morgeson III, 2014).

Internal view and external view: The analysis of each procedure consists of two perspectives: internal (quality) and external (satisfaction). The managers of each service provide an internal view through a questionnaire and interviews. The objective is to understand how the institution provides the service. The view was structured into 22 variables that are later used to compose the quality index. The score assigned to each variable in each case is related to the distance to good management practices.[25]

In contrast, the citizens provide an external view through an online survey aimed at describing their experience when receiving the service. It includes analysis of their expectations before the procedure, the satisfaction experienced, and the degree to which satisfaction affects trust in the provider institution and trust in government in general. To understand the elements that, consciously or unconsciously, citizens use to form their degree of satisfaction, the study also analyzed a set of 16 characteristics relating to the provision of transactional services that have a potential impact on the experience. The set covers costs for citizens (in money and time and other problems), value they received in return, performance of the officials who attended them and treatment received, comfort of the service centers, and access to information on the procedure. The satisfaction index is not a composite index since it is not composed of the 16 attributes but is obtained from direct answers.

This dual view, besides discovering which drivers of satisfaction are most valued by citizens, connects management of the service with citizen experience and identifies possible causal relationships between them. In this way, the information collected leads to actionability.

Voice and exit: It is important to reflect on the value of citizen surveys as a feedback mechanism[26] for public services. In general, there are two feedback mechanisms that service providers can use to quickly identify quality problems and inefficiencies: exit (the user looks for another provider) and voice (public opinion reaches the service managers). However, public services are generally monopolies, which means that their customers (in this case, citizens) are captive.[27] In this case, public institutions cannot benefit from the exit mechanism but only from voice (Hirschman, 1970).

The problem with the voice instrument is that, although it is an alternative accessible to citizens, it does not usually arise spontaneously. Although governments often implement, to a greater or lesser extent, feedback channels, the vast majority of

[25] For example, the highest score will be obtained by services that have a perfectly defined process and that are executed in a controlled way, those where new IT is being used more intensely, and those where a management model for the relationship with citizens, etc. has been implemented.
[26] Feedback means "useful or critical information given to someone indicating things that could be done to improve their performance." The term has its origin in electronics and describes the use of part of the output of a system to correct possible deviations from the desired output.
[27] This state of captivity should not be thought of as equivalent to defenseless or inoffensive because citizens have instruments available to enforce their rights.

citizens never use them to express their views to governments. There are generally two channels:[28] (i) citizen participation in meetings with authorities to discuss initiatives or call for accountability, and (ii) mechanisms for complaints and suggestions.

The first instrument is normally used by a very small portion of citizens with a particular socio-demographic profile (relatively high education level, with time available, and, in many cases, a direct interest in the issues at hand). This possible underrepresentation of users of the mechanism could lead to decisions that, rather than benefiting the majority, only benefit certain groups (Miller and Miller Kobayashi, 2000). In the case of the second instrument, a series of factors prevent it from reaching its potential, including: (i) onerous processes for filing complaints or making suggestions, (ii) perception that the effort involved in exercising voice will not be compensated by the results, and (iii) lack or slowness of response from service managers, derived perhaps from the high risk and low value they see in the mechanism.

The conclusion to be drawn from analyzing the weaknesses of these two instruments is that the voice mechanism needs to be encouraged and strengthened. Otherwise, public institutions are left without any effective feedback channel. A citizen survey—such as the one proposed in this methodology—can contribute to this by involving those who do not participate.

Aside from the monopolistic nature of public services it is important to note the coercive character that exists in many cases. This further complicates the matter: in these cases, not only is there no alternative supplier but neither is it possible not to apply for the service.

Performance measurements: Another element that threatens improvement in the quality of public services is that in virtually all the performance measurement frameworks of public institutions, citizen satisfaction is not considered to be a necessary indicator. Thus, the institutions are being assessed with no regard as to how far they are succeeding in achieving their mission; that is, the extent to which service delivery is of quality, efficient, and effective.

Theoretical Model

The adopted conceptual model was constructed from existing frameworks with a satisfactorily proven track record in the countries where they are applied. To characterize both the internal and external views, this involved adopting commonly accepted structures of variables (attributes and drivers), combining some concepts, and adapting to the real conditions in LAC and to the objectives of this project.

The model includes developing an algorithm to simulate scenarios with different driver values to see what the impact on satisfaction would be in each case.

Structure of the measurement model: The model assumes that all aspects of service management analyzed have some degree of impact on one or more of the drivers of satisfaction. The internal view attempts to characterize the quality of service management. To do this, five dimensions are defined:[29] (i) how the administrative process is defined and managed, (ii) what resources are applied to execute it, (iii) what IT are used in the processing, (iv) how the institution and the regulations are associated with the procedure managed,[30] and (v) how the relationship with citizens is managed.[31]

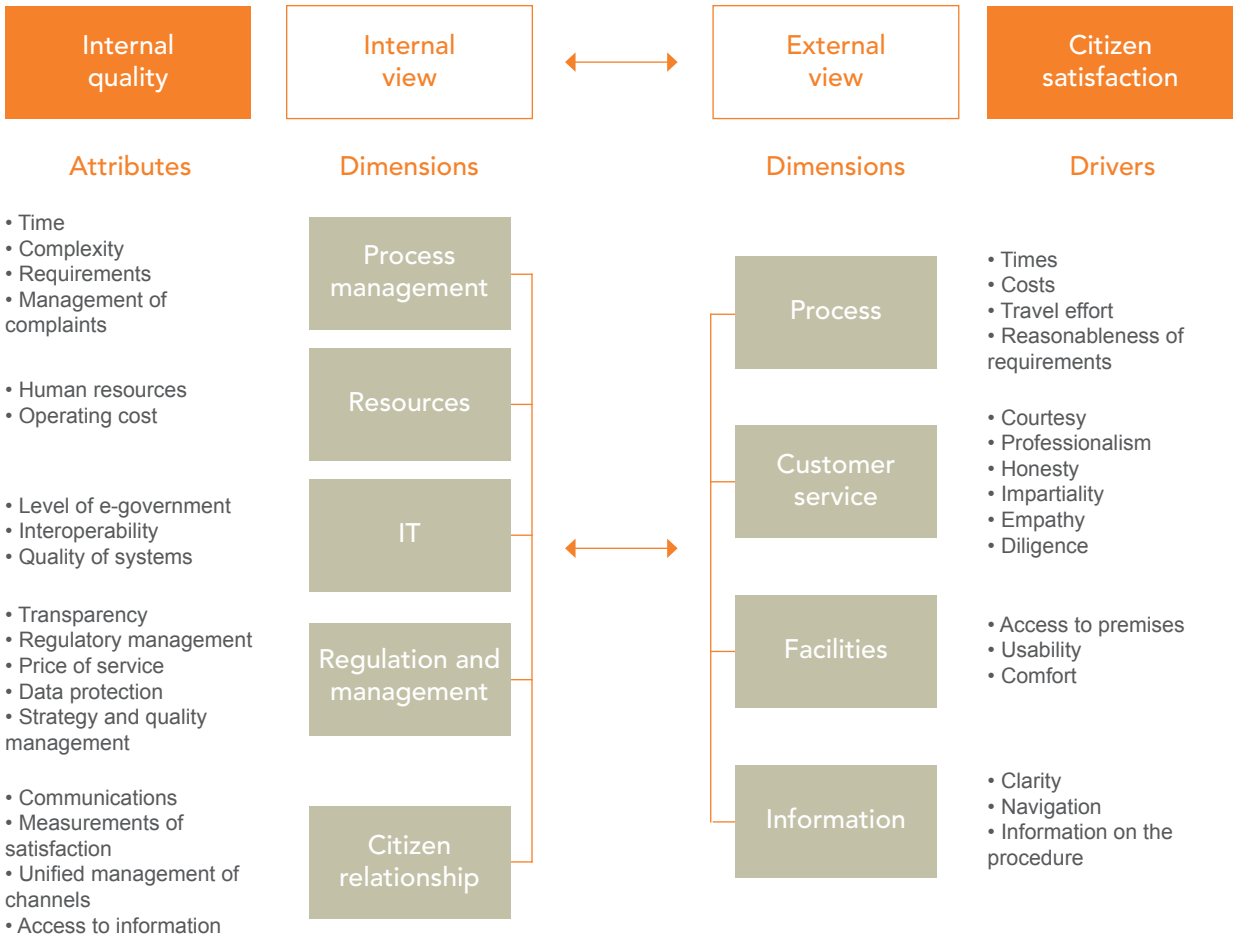
The external view attempts to characterize the experience of each user. Four dimensions are defined: (i) the impact of the main characteristics that define the process on the user's experience, (ii) how users are treated by customer service agents,[32] (iii) the state of the facilities where the procedure took place, and

[28] The *voice* in elections or referendums is not considered here because they are procedures that cannot be used frequently and because their direct impact on quality of services is only to change the people responsible and not to solve problems with the existing providers.
[29] The variables that compose the internal view are described in Annex 3.
[30] In this dimension, the quality management models in use are analyzed. It should be noted that different models and management tools create organizational cultures that facilitate or impede efficiency, innovation, focus on citizens, implementation of improvements, management monitoring, and evaluation of policies and results.
[31] Good relationships with citizens not only allow government to serve them better and in a more personalized way, but also to capture their view of the service.
[32] Customer service is a very important component of citizens' experience. Some studies support this assertion and show that citizens rate fair and respectful treatment more highly than the result of the interaction (Morgeson, 2014).

(iv) the quality of the information about the procedure provided by government.

Figure 1 outlines this structure. For each variable that composes each dimension, one or more questions were defined in the questionnaires (internal and external). The different values for each variable are used to understand where the strengths and weaknesses of management lie (as well as contributing to the construction of a composite quality index) and what drivers of satisfaction are important.

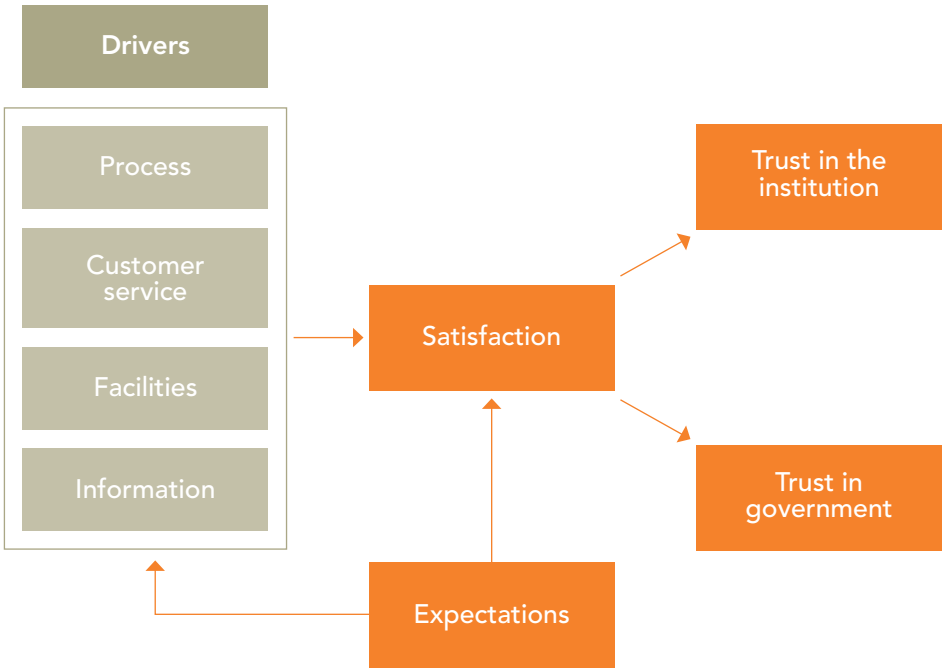
Figure 1: Measurement Model: Dimensions and Variables of Quality and Satisfaction



Source: Authors' elaboration.

The 16 variables of the external view are considered to be drivers of satisfaction; however, whether they all are will be determined by the statistical analysis. Apart from the variables shown in the preceding diagram, the external view also considered the following key variables: satisfaction, expectations, trust in the provider institution, and trust in government. Their basic relationships are shown in Figure 2.

Figure 2: Relationship between Drivers and Key Variables



Source: Authors' elaboration.

External View: Online Survey Using Facebook

This section presents the data collection model for the satisfaction survey. It should be noted that this is an exploratory survey. A description of the data collection process is followed by a comparison of the adopted technique and other commonly used alternatives.

Due to the innovative nature of the technique used for the proof of concept, we decided to implement—in parallel—a face-to-face survey to compare results. This survey is provided in Annex 4.

*

Drivers determine satisfaction, which contributes to trust. Expectations affect both overall satisfaction and its drivers.

Data collection: There are different methodologies that can be used for data collection: surveys (face-to-face at home, face-to-face intercept, telephone, or email), mystery shopper, etc. For the purpose of this study, we chose an online modality, taking the Facebook social network as sample base, and using its platform to invite users to answer a self-administered questionnaire (i.e., without external intervention or support from an interviewer).

The key elements of external data collection are sampling frame, questionnaire, pre-test, procedure, and quality filters.

Sampling frame: Facebook: Las encuestas buscan obtener información de una Surveys are designed to obtain information from a target population based on a representative sample. The objective is to make inferences about the total population based on the responses of the participants in the sample.

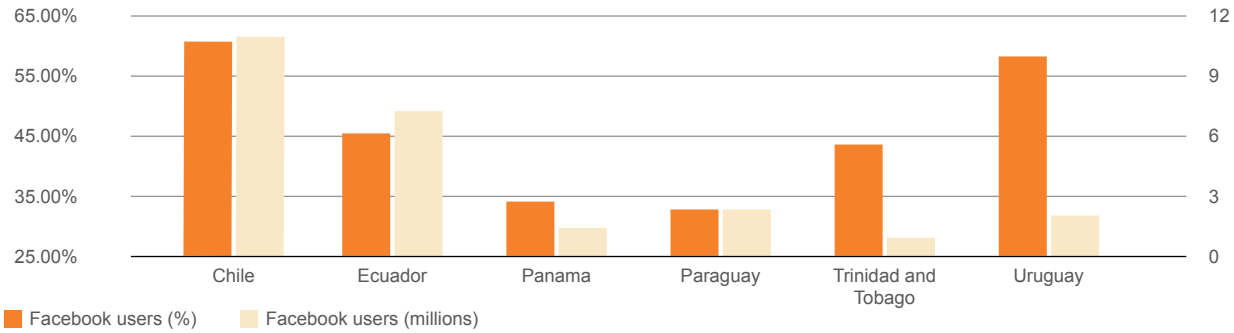
The samples are taken from the sampling frame.[33] As a first alternative, an attempt was made to work with the ideal sampling frame, that is, the set of all recent users of each service, which requires contacting each of them. Thus, contact details of their users were requested from each institution; however, only 1 of the 36 institutions was able to provide this information, so an alternative had to be found.

As already stated, the option adopted was to consider the Facebook users in each country as the sampling frame. The option was supported by the possibility of having a space that contained the service users, which permitted contacting them without needing their contact data, and in which the contact could take part at minimal cost. It is possible that, in the future, spaces will appear that meet these requirements and are more appropriate than Facebook.

Users are detected in the social network and, according to minimum representation criteria, are invited to answer the questionnaire. This means that samples are taken from the Facebook user subset of the population in each country, which excluded the population that does not use the social network. The difference between each country's population and the sample space is shown in Annex 4: 50 percent of the population in LAC uses the Internet. Considering only the countries that are part of the pilot, Internet penetration covers an average of 56 percent of the population.[34] However, not all Internet users are Facebook users. Penetration of the social network in LAC averages 43 percent, and in the pilot countries 49 percent.[35] Figure 3 shows the respective values for each country participating in the pilot.

These levels of Facebook penetration create a bias in the sampling frame, characterized by

Figure 3: Facebook Coverage



Source: Facebook (November 2015).

[33] The sampling frame is "the list of elements of the population being surveyed from which it is possible to select samples" (McDaniel and Gates, 2011, p.418). A sampling frame can be a list of registered voters, a phone directory, a list of employees, or the register of streets and blocks.
[34] These data correspond to 2014 (World Bank). Everything indicates that in 2015 the figures were higher, most probably around 60 percent for the pilot countries.
[35] Facebook AdsManager: https://www.facebook.com/ads/manager/. Accessed November 2015.

underrepresentation of segments of lower education and socioeconomic level and the elderly. However, this can be offset, at least partially, by applying a sampling that aims for a minimum representation of all basic socio-demographic segments, which is possible because, in principle, there are Facebook users in all basic demographic segments.

Representation of members of the target population of a particular demographic segment who are not on Facebook can be achieved through people in the same segment who are on Facebook. It was assumed that both groups have similar experiences and attitudes toward public services.[36]

A very important point of this analysis of the representativeness of the samples is that, not only was there no access to the contact data of users, but it was not possible to know the demographic profile of the users of each service, since the institutions evaluated did not have this information. This information would have allowed us to apply weightings to each demographic segment. The demographic profiles vary from one service to another. In some cases they are similar to the country's demographic profile (e.g., for renewal of identity card) but in others, they are not (e.g., registering a child in school, where the proportion of people aged 30 to 45 is higher, and virtually no one aged over 65 uses the procedure).

Finally, the recent trend of the proportion of Internet and Facebook users in LAC suggests that it will almost certainly go on increasing in all countries.[37] As a result, the sampling frame adopted will tend to contain all users, which will improve the accuracy of the results.

In short, the benefits of using Facebook are:

- High and increasing level of penetration.

- Overcomes the lack of contact information on informants: they can be contacted without having to know their phone numbers or their physical or email addresses.

- Very high level of geographical coverage (as long as there is connectivity), allowing contact with people, which face-to-face surveys do not.

- Daily refocusing of the invitations in order to obtain informants for the segments whose quotas are most deficient.[38]

- The cost per valid response is significantly lower than for a face-to-face survey (the ratio for this proof of concept was 3 to 1). This is a vital aspect of project feasibility.

In the case of this sampling frame, the sizes needed for each sample—for each country and service—were defined so that the sampling error was kept below 5 percent, with a 95 percent trust level.[39]

Questionnaire: For each driver presented in the theoretical model, a question is defined for the respondents to answer. These questions—along with those relating to the key variables, the initial filter variables, and the demographic variables (35 to 40 in total)—make up a questionnaire that has to be answered in a maximum of 15 minutes.

The structure and length of the questionnaires is the same for the six countries. There can be specific variations between the six services (specific questions on one service rather than another) and changes in the wording of questions (to adapt to the local language), so in fact there are 36 different questionnaires. The questionnaire was structured into the following four blocks:

- Filter entry questions to select the target population (people who have received the service in the last year) and to determine that potential respondents are not affected by basic restrictions (possible conflict of interest and others).

[36] This is not so in some specific aspects. For example, preferences with respect to the service channel can contain a bias toward the online channel if the survey is conducted through that channel.
[37] According to http://data.worldbank.org, in the last 10 years, the absolute annual increase in the proportion of Internet users in LAC has fluctuated between 2.23 percent and 4.64 percent, so the most conservative scenario would be an absolute annual increase in this rate above 2 percent.
[38] For example, at some point no more invitations are sent to men under age 40 in a specific city, and more invitations are sent to women aged over 65 in another area of the country.
[39] As the actual size of the study population was unknown, the population was considered to be practically infinite for this calculation. This is a conservative assumption because it involves larger size quotas than for finite populations.

• Questions on satisfaction with the service.[40] Rating of drivers of satisfaction through questions and answers in a scoring range. A scale of 1 to 10 was selected for all variables, that is, citizens who responded to the survey could say they agreed or disagreed with the statements presented to them, choosing a value from 1 to 10, where 1 meant total disagreement and 10 full agreement. This scale allows for a wide distribution of responses, while not having a neutral option (since it has an even number of options), forcing informants to express a positive or a negative reaction. The neutral or indifferent point of the scale is 5.5. This block is divided into five sections: (i) general questions and questions on key variables; (ii) questions on the procedure (time, cost, and travel effort); (iii) questions on the treatment received; (iv) questions on the local customer service center; and (v) questions on the information available. For some services, there are also specific questions that collect information that is not part of the model.

• Open questions aimed at collecting unstructured information that the informants may think it necessary to provide.

• Demographics of data and contact:

> Socio-demographics of data: mainly the subnational entity of residence (region, province, and commune in Chile; province and canton in Ecuador; province, district, and township in Panama; department and district in Paraguay; municipality in Trinidad and Tobago; and department and locality in Uruguay); gender; age group; ethnicity; and socioeconomic level. These questions allow the characterization of informants while also the monitoring of the planned demographic quotas. In the case of ethnicity, the same question included in each country's census was applied. For socioeconomic level the same question used by Latinobarómetro was applied.[41] We emphasize that the informants characterize themselves.

> Contact data: this was requested (with optional answer) for verification of responses and participation in a lottery intended to increase the number of responses.

Pre-test: To ensure the robustness of the measurement instrument, a prior test was conducted, commonly known as a pre-test. This is a very short application to find design errors (possible lack of clarity in the texts, lack of continuity, deficient skip patterns), new alternatives for questions previously codified and closed, and the general reaction of informants. The time taken by informants to complete the response (which should be less than 15 minutes) is also checked and estimates made of the response rate and results expected per day.

The pre-test was conducted with the same methodology as the actual survey. The pre-test comprised 360 surveys distributed in various services in all countries. As a result, the low response rate for *disability allowance* was identified and the wording of several questions was corrected.

Procedure: As already mentioned, the data was collected by an online survey on the Facebook social network. For this, the following activities were developed:

• The survey was programed using the online survey platform SurveyMonkey (www.surveymonkey.com). For each country a different access link to the survey was created, which enabled the survey for the country's six services.

• Facebook messages were sent inviting people to take part in the survey. Facebook allows messages to be sent to different demographic segments (geographical location, age, and gender) as well as other segmentation criteria. The inclusion of a Facebook user in a specific segment is self-identified. Depending on the response rate, the messages are repeated, which permits their display in different sections of the user's screen to give them more visibility. In the cases where the institution had contact details that could be used for the survey, it was possible to supplement the use of Facebook with an invitation by email.

• A segmentation sequence was established for selection of service users:
> In the first, users were selected for each service.
> In the second, all gender and age quotas were covered.

[40] Annex 3 contains the questions for this block.
[41] http://www.latinobarometro.org/.

> In the third, quotas by geographical location were covered.

- By clicking on an announcement link, informants landed on the pre-programed web form (in technical jargon, a landing). At the beginning of the questionnaire filter questions were included so that only respondents who qualified could continue. These questions are crucial to the rest of the survey: they are used to determine which services the respondent used and, then, apply one or another variant of the questionnaire.

- After passing the filter, the informant answers the substantive and demographic questions and, optionally, the contact data questions.

- The survey results were downloaded and additional quality filters were applied. Finally, they were sent for approval and analytical processing.

Quality filters: To ensure quality and achievement of the study results, the following quality filters were applied to validate each response, in addition to the study design criteria themselves:

- Target population filter: An extensive multiple choice list was shown to informants, which included the six services included in the study. Potential informants were asked to select those they had used in the previous 12 months. If they stated they had not used any of the listed procedures or selected one that was not in the set of six pilot services, their participation was ended. If they selected valid services, they were permitted to continue with the corresponding questionnaire.

- Response time controls: The data capture platform automatically records the session's start and finish times, allowing the development of statistics on the average, minimum, and maximum response times of the questionnaire.

- Repeated IP controls: In all cases, the informant's IP address is recorded as a way of blocking possible retries. Two responses from the same IP address are not allowed.

- Controls on repeated Facebook accounts: Two responses from the same Facebook account for the same service are not allowed.

- Randomization: The platform generates questions in random order to minimize bias arising from the order of the questions.

- Daily report: A report is produced on the progress and development of the research in terms of surveys answered and rejected.

- Cleaning out of straightliners.[42]

Comparison of data collection methodologies:
This section presents a comparative analysis of data collection methodologies. The objective of the analysis is to present the strengths and weaknesses of each methodology as way of contextualizing the validity of the technique adopted for this study. All of them share the difficulty imposed by lack of demographic and contact data on the users of each service.

Face-to-face survey: Traditionally, face-to-face surveys have been the most used tool. Several studies, including Díaz de Rada (2012), recognize their advantages for accessing the target population and the possibility of having precise sampling errors (especially face-to-face household surveys). This type of survey is suitable for extensive questionnaires and questionnaires with complex questions that require additional verbal explanation for informants with low education level. They are more reliable with respect to demographics since they are verifiable to some extent by the survey taker. However, factors against face-to-face surveys are cost (they are considerably more expensive than the other options), errors introduced by survey takers, and inhibitions that survey takers may cause in the respondent in sensitive, open questions, or questions that require reflection.
There are two types of face-to-face surveys: household and intercept (in which the interviewer questions people in a public space, for example at the exit from a customer service center). The construction of sampling frames in households is restricted by

[42] "Tendencia consistente en que el encuestado marque siempre la misma opción." Available at http://www.investigacionmercados.es/como-reducir-el-straightlining/ (accessed in May 2015).

difficult access to the selected individuals. Among other things, the high levels of insecurity that plague the region lead to a low level of trust, which causes householders not to open the door to survey takers. This results in decreased accuracy and the need to replace the originally selected samples, which increases data collection costs.

With intercept interviews, it is not possible to select the elements of the target population with the same levels of randomness as household surveys. A study such as this one would have to cover all the points and service channels, at different times and days. This would be too costly and impractical to obtain a view with representative geographical distribution for all services. Also, although selection of samples can be planned in detail, most of the selection ends up being done by the survey taker rather than the planner. Other weaknesses are lack of privacy for the informant and the inconvenience caused by not expecting to respond to a survey that can last 20 minutes.

The survey at the exit from the customer service center differs from the others with respect to the type of information obtained from the people consulted. Since the person has just had the experience, the response is from "someone who is experiencing." In contrast, in other techniques, which take place sometime after the experience, the informant is "someone who is remembering." Very often these two views differ (and may even seem contradictory) without being able to say that either of the two is incorrect (Kahneman, 2011).

Telephone survey: Telephone surveys had their heyday especially because of their capacity for penetrating households, skipping over all the access barriers typical to personalized interviews already mentioned. Their advantages are low cost and ease of making several attempts to contact a household, reducing the number not contacted. However, their relative effectiveness (relative to the response rate) began to decline with the rise, first, of automatic answering machines and incoming number capturers and, later, with the spread of mobile telephony. Also, the restriction—already existing for interviews by fixed telephony—that the questionnaire had to be relatively short in order to avoid high desertions, was exacerbated by mobile telephony, which increased the limitations on the depth of the questionnaire. Another factor that negatively affected this modality was the use of aggressive marketing practices that promoted products by disguising the reason for the call with false surveys.

Online survey: As Internet use has become more widespread, the use of online surveys as a market research tool has been increasing.[43] Several authors have dealt with their advantages and disadvantages and some have been mentioned in this document. The main aspects highlighted by the literature are the following:

- Greater geographical scope, since the Internet allows access at reasonable costs to remote points where the face-to-face methodology is not feasible (Roztocki, 2001).

- The level of Internet penetration causes biases (Fricker et al., 2005).

- Better cost–benefit ratio, and a cost that is practically independent of sample size (Couper, Traugott, and Lamias, 2001).

- Less data collection time and independence of time with respect to sample size (Roztocki, 2001). The independence of cost and time means that larger samples can be taken to improve representativeness.

- Higher level of sincerity as a consequence of self-administration. Also, more time to think about the responses, something particularly valuable in open questions and questions that need a minimum capacity for abstract reasoning. In addition to sincerity, individuals are more uninhibited when communicating online than in person (Chang and Krosnick, 2003).

- Possibility of automatic monitoring in real time of responses and instantaneous control of doubtful responses (Fricker et al., 2005).

- Decreased human error due to disintermediation[44] (Roztocki, 2001).

[44] Since this is a self-administered survey, one source of error is eliminated: the survey taker. However, it must be recognized that the survey taker adds value in cases of complex questions or informants with low educational level.
[43] The annual world study "European Society for Opinion and Marketing Research" states that 45 percent of research uses online techniques (McDaniel and Gates, 2011).

Conclusions: Clearly, all methods have advantages and disadvantages and are more or less appropriate depending on four fundamental factors: (i) the objectives or type of research, (ii) the context in which the research takes place, (iii) the possibility of counteracting the weaknesses inherent in the method, and (iv) the acceptable cost–benefit ratio (financial viability). When considering these four factors, it could be stated that there is in fact no better alternative for the study of citizen satisfaction than the one that was adopted here. There are also studies on the subject that analyze the accuracy of the various alternatives discussed without finding significant differences.[45] It is noteworthy that where the online instrument most stands out is in the cost–benefit ratio.

Moreover, considering Internet penetration and participation in social networks is increasing worldwide (and at a relatively higher rate in LAC), in the very near future, we can expect that this method will have advantages over the others, as is already becoming apparent in countries with high Internet penetration, such as the United States. Moreover, this increasing penetration brings the reachable population ever closer to the total population, which tends to remove any bias that may occur today in terms of age ranges, education levels, and socioeconomic levels.

While the differences between the Facebook sampling frame and the total population are not sufficiently small, we have to continue asking ourselves—in the case of a study of citizen satisfaction with transactional services—if there are significant differences between individuals who belong to the Facebook universe and those who do not. Similarly, the question arises as to whether there are significant differences between the opinions of those who accept the invitation to take part in the survey and those who do not. In principle, there is no reason to believe that such a difference exists.[46] In any case, it should be remembered that the lack of precise knowledge of the universe of users of each service is a more influential factor than the collection technique used.

External View: Statistical Analysis

In social research on people's preferences it is basically possible to distinguish two approaches: deductive, which directly measures citizens' preferences, and inductive, which infers the preferences from analysis of the ratings of the attributes of a service. In both cases quantitative techniques can be used.

Asking an individual directly for their preferences (deductive approach) has a disadvantage with respect to prioritizing the attributes with most impact on satisfaction. The difficulty is that, intentionally or not, the truthfulness of the answers does not necessarily reflect their behavior in reality. This is because, in general, citizens do not have a prior reflective judgment of the importance of certain attributes of satisfaction. As a result, this project has preferred to adopt the inductive approach.

This study applies the "Theory of Reasoned Action" (Ajzen and Fishbein, 1980), which is used to define a quantitative model that determines the importance of each attribute of satisfaction based on the declared attitude and beliefs. This theory considers two dimensions, one cognitive and the other sensitive. The former explains beliefs about something and is used to identify the attributes that influence satisfaction, while the latter explains the intensity of these beliefs and is used to quantify the degree of importance of each attribute.

Based on this model, estimates are made, first, of the general importance given by citizens to each attribute of the service and, second, the scenarios that could occur by acting on a specific attribute. Statistical learning techniques are used to make inferences between citizens' responses and the underlying model that explains satisfaction. This

[45] Conde and Cremonte (2015) studied the quality of surveys by analyzing significant differences between the three most common forms—self-administered online, self-administered with paper and pencil, and administered face-to-face—and concluded that there were no differences in accuracy between the three modalities.
[46] Miller and Miller Kobayashi (2000) argue that, although the lowest education levels, men, and ethnic minorities tend to be underrepresented (in the United States) among people who respond to surveys by mail or phone, those who respond and those who do not typically have similar opinions on the quality of services provided by government.

learning is used to explain a dependent variable or objective (satisfaction) from a series of independent variables (responses to citizens' questions on various specific aspects of the service). The model obtained identifies different scenarios according to possible evolutions (improvement or worsening) of the satisfaction attributes.

The statistical analysis was performed following a sequence of activities: descriptive analysis, importance of attributes, and predictive model.

Descriptive analysis: In this activity, the validity of each response is verified and the degree of independence of the variables (attributes) is analyzed.[47] The analysis is used to produce dimensionality reduction.

Initially, each question on the questionnaire reflects an attribute that has to be rated. It has been assumed that, in theory, all have an influence on satisfaction. However, this may not be the case; if so, the model can be simplified, discarding variables that can be fully explained by others, thus obtaining a minimum dimension set.

First the exploratory analysis is performed to understand how respondents reacted to each question. This consists of analyzing the statistical distribution of the questions to detect possible errors in the programming of the survey, response biases, etc., and thus be able to take as valid the set of responses to a question.

A second step is the study of the intra-questionnaire deviation, whereby each informant's response is analyzed to detect insincere responses, which are discarded. In the proof of concept, 2 percent of the responses were eliminated.

The third and final step is known as principal component analysis.[48] Following the data cleansing completed in the two previous steps, work can now begin with reliable data. This is the step where possible redundancies are detected in the questions and concepts, which seemed different but which citizens identify as similar (e.g., the effort of travel could be the same as the number of steps).

We note that only in some special scenarios do the attributes end up being replaced by the principal components for the following phases. For this project, we found that using the components did not improve the results from a statistical point of view. Because of this, in the following activities, work continued with the attributes.

Importance of attributes: With the results of the exploratory analysis (i.e., with a good knowledge of the data collected), the study proceeds to determine which attributes have some impact on satisfaction, then the most important ones are identified and ordered according to their importance.

Before analyzing the importance of attributes, a bivariate analysis is performed,[49] which identifies the attributes that independently correlate with satisfaction. This analysis does not identify the degree or direction of the correlation between the two variables, that is, it is not yet possible to describe or quantify the importance of each attribute on satisfaction.

After identifying all the variables that correlate with satisfaction, the work proceeds with the importance of attributes. A multivariate analysis is used in this activity. This means that all of the attributes of each dimension are analyzed at the same time (process, service received by citizens, facilities, and information) rather than each attribute in isolation. The next step is to determine the most important (those with most impact on satisfaction) and each one's degree of relative influence. The algorithm used for this analysis is known as *Random Forest*. The results are normalized, assigning a value of 100 to the most important attribute. The other attributes take values relative to the most important.

[47] Attributes are abstractions we make of a complex and interwoven reality. This means that in most cases there is some degree of correlation between them. For example, the time spent completing a procedure may be closely related to the diligence of the officials or the possibility that the procedure can be completed online.
[48] The principal components are a reduced set of new linearly uncorrelated variables containing the same statistical information as the set of variables to which the principal component analysis is being applied.
[49] The term "bivariate" refers to the fact that this type of analysis reflects whether or not there is a correlation between two variables (e.g., between satisfaction and travel effort).

After initial analysis, we found it necessary to exclude expectations as determinants of satisfaction in the analysis of importance because the correlation between them is too high. This confirms that expectations and satisfaction are two very closely linked concepts. If they were included as attributes, the result would be a false model where very few or no attributes would be statistically significant. The result is a prioritized list of the attributes that determine citizen satisfaction.Table 1 shows an example of the importance of attributes.

The analysis of importance only determines the criticality of the attribute and not how citizens are rating the performance of the institution with reference to that attribute. It is the citizens who determine the importance, while the institution's capacity to affect it in the short term is limited. Where the institution can and must have influence is in performance relative to each attribute.

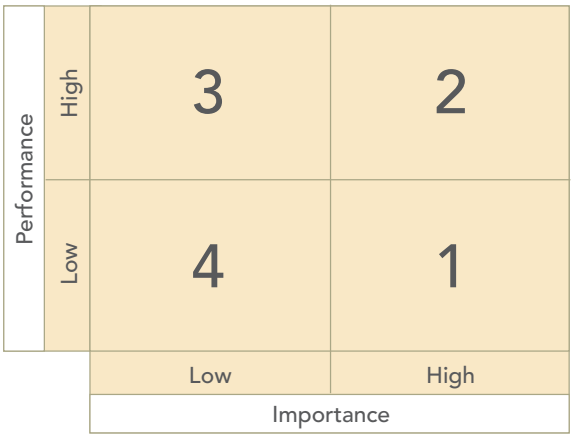
Table 1: Example of Normalized Results of Analysis of Importance: Obtaining a Doctor's Appointment in Panama

Attribute	Ranking	Degree of importance	Process	Service	Facilities	Information
Important or with high impact						
Processing time	1	100	✓			
Impartiality	2	86	✓			
Diligence	3	47		✓		
Courtesy	4	35		✓		
Honesty	5	29		✓		
Professionalism	6	27		✓		
Empathy	7	24		✓		
Information of procedure	8	22				✓
Cost	9	21	✓			
Comfort	10	20			✓	
Goal of the requirements	11	17	✓			
Low or null impact						
Access to premises	12	7			✓	
Clarity	13	4				✓
Effort to travel	14	2	✓			
Usability	15	2			✓	
Navigation	16	1				✓

Source: Authors' elaboration.

It may be useful to illustrate for each service the relationship between importance and performance for all attributes. This is usually done with a representation in quadrants as shown in Figure 4. Each attribute is located in one of the four zones. In zone 1, importance is high and performance is low. Ideally, no attributes fall into this zone; so, it would be a priority to invest in improving any attribute listed there. In zone 2, both importance and performance are high. This is the ideal zone where most important attributes should be placed, and it is necessary to ensure that those already listed remain there. In zone 3, importance is low but performance is high, which could indicate a surplus of resources being used to maintain the quality of an attribute that citizens do not see as significant. Finally, in zone 4 both importance and performance are low. While importance remains low, there is nothing to be concerned about. In short, zone 1 requires urgent changes, zone 3 indicates a possible waste of resources, and zones 2 and 4 reflect correct management.

Figure 4: Importance vs. Performance



Source: Authors' elaboration.

Predictive model: In this activity, a technique is defined from the most frequent types of predictive algorithms and the algorithm for predicting satisfaction is constructed based on the performance of the most important attributes. This explains the contribution of each attribute to satisfaction and tests different scenarios to see what the different impacts on satisfaction would be.

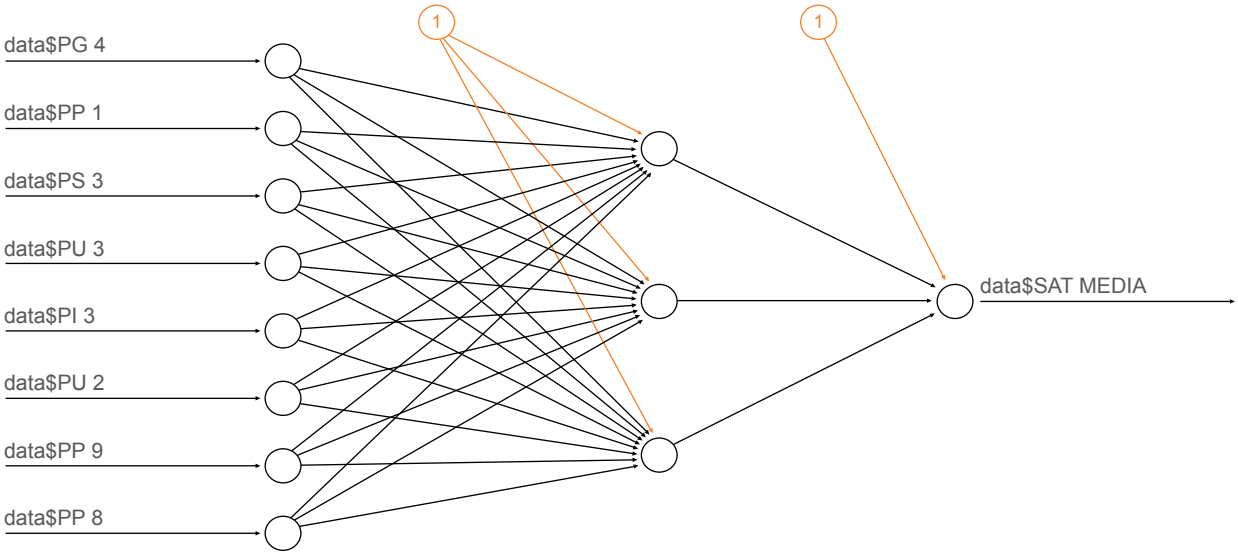
Different alternatives were considered as predictive model: neural networks, multiple linear regression, logistic regression, and decision trees.[50] These four methods were compared in terms of ease of interpreting the results, capacity to represent nonlinearities, mean square error (R2), and the capacity for success (percentage of successful cases, i.e., where the prediction made by the statistical model was correct). Neural networks showed the best result for statistical indicators (R2 and success); however, they have the disadvantage of being difficult to interpret.[51] However, this difficulty can be reduced if the predictive model is supplemented with the information on importance of attributes. For these reasons, this technique was finally adopted.

Neural networks are artificial networks that simulate the neuronal behavior of living beings. They function by receiving a set of stimuli that are processed and produce a specific output. To identify the mathematical function that relates stimuli (inputs) to results, the network is trained with the complete set of data available that have the stimuli (responses from informants to questions about the attributes) and the result (satisfaction reported by citizens). The learning data is applied iteratively and the behaviors that each neuron must have are adjusted (basic component of the algorithm). Thus, the network becomes a representation of the system and will know what the response corresponding to a new input is. Figure 5 shows the outline of a neural network.

Using statistical software, 35 neural networks were constructed, one for each country and service.[52] These networks are capable of predicting satisfaction from the input attributes (the model is, in fact, a set of 35 models).

[50] Structural Equation Modeling was not considered because it is a confirmatory rather than predictive technique. This means that its application is subject to prior expert knowledge of the sector and of the study population. It is not a technique that is designed to discover or identify relations and patterns, but rather confirm a hypothesis of existing relations and components proposed by experts.
[51] It is not possible to represent the result as a linear equation or by means of easily understandable conditions.
[52] Although 36 services were analyzed, there was one case where it was not possible to collect the information. The section on the results for the disability allowance service includes more details on the case that had to be excluded.

Figure 5: Diagram of a Neural Network

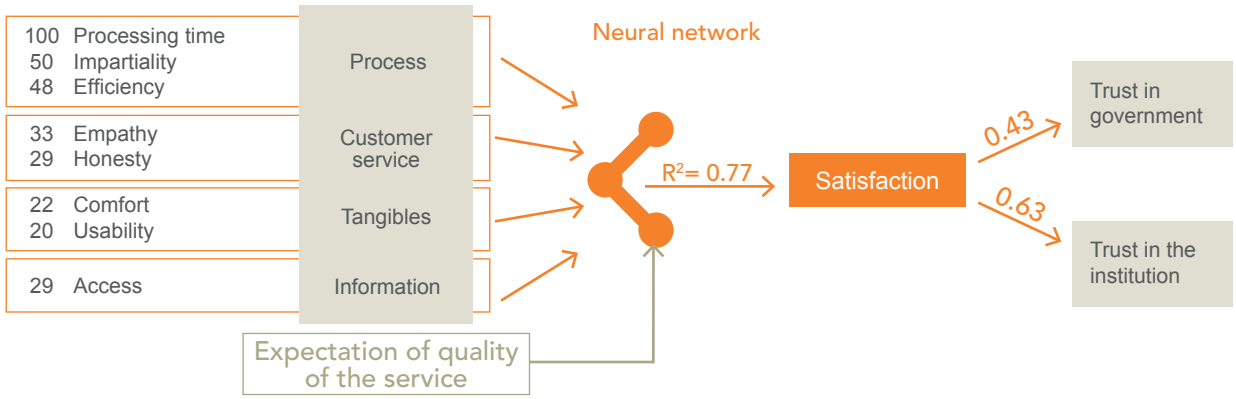


Source: Authors' elaboration.

Figure 6 is an example of how satisfaction is predicted. The input to the artificial neural networks (ANN) is the most important set of attributes. To this set the *expectations* variable is added as input, which is different from the other inputs because the institution cannot change it directly since it is the indirect result of the institution's actions. Therefore, it is not used to define the different input scenarios (its value is always that measured). Next to each attribute, Figure 6 shows the level of importance with respect to satisfaction.

As already mentioned, the neural network is used to predict satisfaction for scenarios different from the one identified with the pilot survey. By varying some of the input values (the performance of the most important attributes), a hypothetical scenario of improvement can be obtained, for which the model

Figure 6: Example of Model of Citizen Satisfaction



Source: Authors' elaboration.
Note: A model for service by country was created, in each case incorporating the key attributes (which vary from one case to another).

produces the corresponding value of satisfaction as output. Thus, an estimate can be made of how much satisfaction will vary by improving a variable (e.g., processing time) or a set of variables (e.g., empathy and impartiality).

At the same time, the cost estimates of the projects that would create the scenario being tested have to be considered, which enables the service managers to choose the option with the best investment–impact ratio. Thus, this tool can become an instrument to facilitate decision-making when defining modernization programs.

It is worth recalling that the model responds to a scenario of interrelated variables and does not have a linear response for any specific variable. This is consistent with the fact that several variables are not independent of each other. This means that if, for example, the objective of improving processing time is chosen, leaving the rest of the variables fixed, this could be considered an unrealizable situation and, therefore, the results would have a lower degree of accuracy. Table 2 illustrates how the model could be applied in decision-making.

Therefore, the neural network shows the different results on satisfaction that would be obtained for each of the three interventions considered. For the purpose of decision-making, this information has to

An estimate can be made of how much satisfaction will vary by improving a variable (e.g., processing time) or a set of variables (e.g., empathy and impartiality).

Table 2: Case Study of the Predictive Model

	Scenario # 1	Scenario # 2	Scenario # 3
Variables on which it is planned to act	Processing time	Empathy	Professionalism Information on the process
Present value	5.3	4.8	4.5 6.0
Actual satisfaction	4.4		
Scenario description	Performance of the variable increases 1 point (to 6.3)	Performance of the variable increases 1 point (to 5.8)	Performance of the variables increases 1 point (to 5.5 and 7.0, respectively)
Results of the evaluation of the scenarios with the ANN predictive model			
Predicted satisfaction	5.5	5.2	5.4

Source: Authors' elaboration.

be taken together with the costs of each intervention (cost-effectiveness analysis).

Figure 6 shows that the exercise included modeling the relationship between satisfaction and trust in government and in the institution using a linear regression model with satisfaction as the only predictor variable of the trust. The figure also shows the coefficients obtained with the regression, and it can be observed that the trust coefficient in the institution is greater than that for trust in government. This shows that the improvements that can be achieved in satisfaction would have more impact on the institution's image than on the government's image, although the contribution would be positive in both cases. This result is consistent with expectations, since trust in government is subject to many elements not evaluated in this study and unrelated to satisfaction with a transactional service.

Internal View: Quality Index

This section describes the quantitative analysis of the internal view. The objective is to understand which factors of the management of the institutions are affecting quality levels and, consequently, those of citizen satisfaction. The information was provided by the institutions themselves through questionnaires and interviews, and has been reflected in a set of variables that are used to characterize each service's situation and construct a composite quality index.

As noted in the *Structure of the Measurement Model* section above, the internal view variables are grouped into five dimensions. The quality index takes the following form:

$$IC = w_1 P + w_2 Rec + w_3 TI + w_4 GyR + w_5 Rel$$

where:

IC = management quality index
P = score of process dimension
Rec = score of resources dimension
TI = score of IT dimension
GyR = score of management and regulation dimension
Rel = score of relationship with citizens dimension

The first step is to define the relative weight that these dimensions should have so that the composite index represents, as faithfully as possible, the distance that can exist between the situation for each service and its generally accepted good quality practices. Since there is no reference definition in this respect, it is possible to conceive multiple valid solutions.

As a first approximation, the criterion of simplicity was considered, leading to an equiproportional weighting.[53] Next, a deeper analysis considered the variables that compose each dimension and analyzed robustness and sensitivity. We decided to adjust the equiproportionality, finally adopting the following model:

$$IC = ¼\ P + ¼\ Rec + ¼\ TI + ⅛\ GyR + ⅛\ Rel$$

It is possible that better weightings could be proposed and even a more appropriate set of dimensions of quality management than the one adopted. However, it is important to bear in mind that this is only an average whose purpose is to consider quality in general terms and that, in itself, it does not possess any actionable information. In any event, these weights should be reviewed in each new edition of the measurement.

The service managers who propose to work on the weaknesses identified should base their analysis not on this average, but on the variables that compose each dimension, as described in Annex 3, which gives the relative weight of each variable in the dimension to which it belongs. After defining the relative weights of the dimensions, the next step is to calculate each score. Prior to this, the variables have to be normalized (they are rescaled so that their values fall in the interval [0,1]).

[53] "Weighting by weights of the same amount (equiproportionality) is the most widespread methodology applied in empirical research, given the very few operational difficulties and ease associated with interpretation of results" (Domínguez Serrano et al., 2011). There are several composite indexes that apply equiproportionality (e.g., Human Development [HDI-UNDP] or Environmental Performance [EPI-University of Yale]), and others that apply differentiated weights (e.g., the EFQM model).

The score of each dimension is given by:

$$Dimensión_i = \sum_{K=1}^{N_i} w_{ki} I_{ki}, \text{ para } i = 1,2,3,4,5$$

where:

i = each dimension (D_1 = P, D_2 = Rec, D_3 = TI, D_4 = GyR, y D_5 = Rel)
N_i = the number of variables of dimension i
w_{ki} = the relative weights of the variables in dimension i
I_{ki} = the normalized variables

Execution 2015 of Simplifying Lives Project

The idea of the Simplifying Lives project was conceived and developed during 2014, and the proof of concept was executed in 2015. The project was divided into four phases:

- Development of measurement methodology: Constructed on the basis of regional and international experience. The main activities were:
  > Selection of services to be evaluated.
  > Definition of basic design principles.
  > Definition of data collection technique and measurement model (structure of dimensions and variables that compose the internal and external views).
  > Design of questionnaires.
  > Definition of the statistical analysis model.

- Data collection: For the internal view, the managers of each service answered a questionnaire and personally participated in an interview; for the external view, an online survey of citizens who have undertaken some of the procedures was conducted through Facebook. In both cases, it was requested that the responses relate to the period from June 1, 2014 to May 31, 2015.

- Statistical analysis and information consolidation: The importance and performance of each attribute of citizen satisfaction was determined, a predictor algorithm of satisfaction was constructed from the values of its attributes, and regressions and correlations between different variables were determined.

- Preparation of final document.

For the proof of concept, the aim was to work with a set of services and a set of countries that were at the same time of reduced size and representative. A set of six countries and a set of six services were defined (consequently, the work was done with 36 different cases of services). The countries were selected to cover the diversity of situations that occur in LAC. Four of the five IDB regions were represented in this set. The countries that participated in the test are Chile, Ecuador, Panama, Paraguay, Trinidad and Tobago, and Uruguay.

The countries selected the six services included in the proof of concept using the procedure described below. First, a list of potential procedures associated with main life events was shared with the countries.[54] They were then asked to prioritize the list according to four criteria of relevance:

- Impact (number of annual users): The higher the number of users of a service, the greater the impact of the quality of provision of the service on society as a whole.

- Willingness of the service managers to implement improvements in the short or medium term: aims to identify the improvement plans that the Simplifying Lives project could rapidly evaluate.

- Presumption of a low level of satisfaction provides the opportunity to confirm the presumption.

- Political importance: Inclusion of services whose improvement is part of the government's current agenda.

Naturally each country set different priorities. This led to a trade-off that, as much as possible, considered each of the six proposals. As mentioned earlier, the six services finally selected were: (i) request for disability evaluation or disability allowance (*disability*

[54] "Life events" refers to relevant changes in the status or circumstances of a person: for example, having a child, getting married, reaching legal age, moving house, starting a business or employment relationship, becoming unemployed, retiring, etc.

allowance); (ii) obtaining a doctor's appointment in the public health system (*obtaining a doctor's appointment*); (iii) reporting a burglary or larceny (theft), where the victim was not hurt (*reporting a theft*); (iv) registering a birth (*registering a birth*); (v) registering a child in a public school (*school registration*); and (vi) renewal of ID (*renewing an ID*).

After selecting the services, their definition was homogenized.[55] For this purpose, governments were asked for information on each service in relation to regulations, cases of the service (other possible cases in the same procedure), and number and demographic profile of users.[56] Of all the possible alternatives for a procedure, the most commonly used was adopted for this study. After the services were clearly defined and homogenized, measurement was started by sending internal view questionnaires to the managers of each service. At the same time, work to obtain the external view was initiated. After collecting the information, the summary sheets (Annex 1) were prepared for each service and sent for validation.

The invitation to participate in the online survey was sent from Facebook, so the users of this social network made up the universe of the survey. Four hundred informants were found for each service in each country,[57] and minimums were defined in terms of gender, age, and geographical location. In total 11,504 valid responses were obtained for the 36 services. Because of the innovative nature of this method, the results were triangulated with a face-to-face survey in Paraguay for three services. Annex 4 presents a summary of the comparison between the two methods.

The invitation to participate in the online survey was sent from Facebook, so the users of this social network made up the universe of the survey.

[55] See Comparability in the Design Principles section.
[56] In no case was it possible to obtain evidence of the demographic profile of users.
[57] In Trinidad and Tobago, the target was 200 respondents.

2. Results

This chapter presents the results of the study. First, the results are developed at the regional level. Next, regional performances are analyzed for each service. Finally, a brief analysis is performed based on each country's demographic variables.

The results are valid, strictly speaking, only for the set of the six countries and six services evaluated. The limited sample size requires caution if extrapolated to the rest of LAC or to other services. However, it seems reasonable to conjecture that the situation in the rest of the countries and services will have many similarities with those observed in the Simplifying Lives project. In the case of the external view, it should be recalled that the study is exploratory; therefore, the results represent an approximate view of the phenomenon analyzed.[58]

General Results

The main findings at the regional level are presented below. The information collected by the Simplifying Lives project can be used for similar and deeper analyses in each country, although this is beyond the scope of this study.

The following sections are divided into two groups. The first six sections focus on the variation of quality and satisfaction across the region. These sections show how the two variables fluctuate over different countries and services, how they affect expectations, which characteristics are most valued by citizens, and the relationship between management of the service and citizen experience, which can be used as an indication of the type of improvements required in each case.

The other four sections present possible impacts of citizen satisfaction in terms of the relationship with trust in the institution and trust in government, with the perception of corruption, and with the main demographic variables.

Absolute and relative dissatisfaction: The study finds that there could be dissatisfaction with transactional public services in the region. In absolute terms, the regional average of satisfaction with transactional services was 4.8 (on a scale of 1 to 10), which is below the indifference point (5.5).

The U.S. ACSI can be used as a benchmark in interpreting satisfaction. Although the two methodologies have differences (in particular, the unit of analysis for Simplifying Lives is a specific transactional service, while for the ACSI it is the provider institution), the method for determining satisfaction is very similar. In 2015, the ACSI for the federal government had an average of 64 on a scale of 0 to 100 (equivalent to 6.8 on the scale of 1 to 10 used by Simplifying Lives). In 2015, satisfaction with ministries varied between 55 and 75; in the 2007–15 period, the average rate fluctuated between 64 and 69 (ACSI, 2015). In conclusion, in LAC, the level of satisfaction with procedures is also low in relative terms. The reference to the ACSI is also useful for governments when determining achievable goals. Reasonably good performance does not necessarily correspond to a number close to the scale's maximum. Even the private sector with the best performance in the United States (manufacturing and durable goods) has an average score below 80.

Thus, 4.8 in LAC should not be interpreted in terms of the distance from the top of the scale (10), although it is an indicator of relatively low performance that needs to be improved. Furthermore, this average value may conceal pronounced variability in satisfaction levels across different services. The results vary between 3.2 for *reporting a theft* in one of the countries to 6.7 for *renewing an ID* in another.

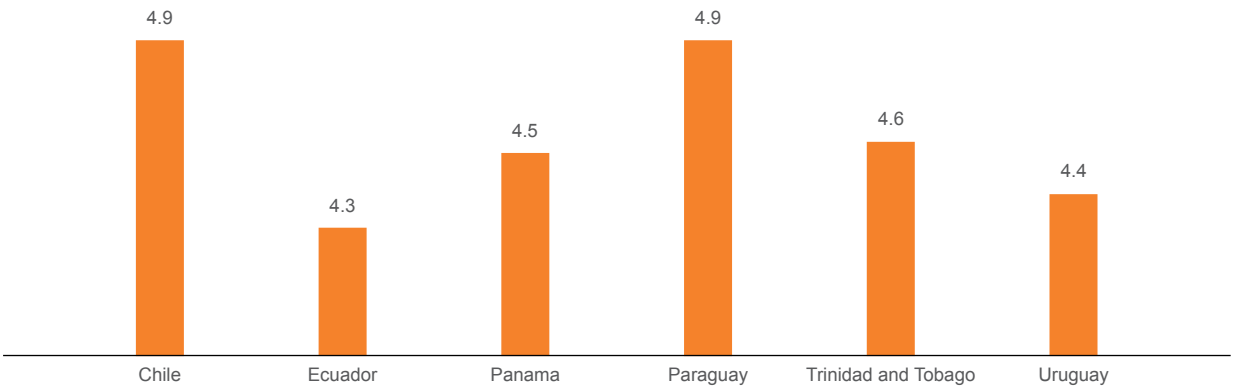
Expectations and frustration: The regional average of citizens' expectations prior to receiving the service (4.6) is below the mean of the scale (5.5). The mean of the scale indicates the point

[58] The "External View: Online Survey Using Facebook" section in Chapter 1 contains a description of the scope and limitations of the methodology adopted for data collection.

where what was expected equals what was received.[59] As expectations were low on average, what citizens received was better than what they expected.[60] In fact, a significant inverse correlation was found between expectations and satisfaction (−0.78).[61] Figures 7 and 8 show these data by country and service.

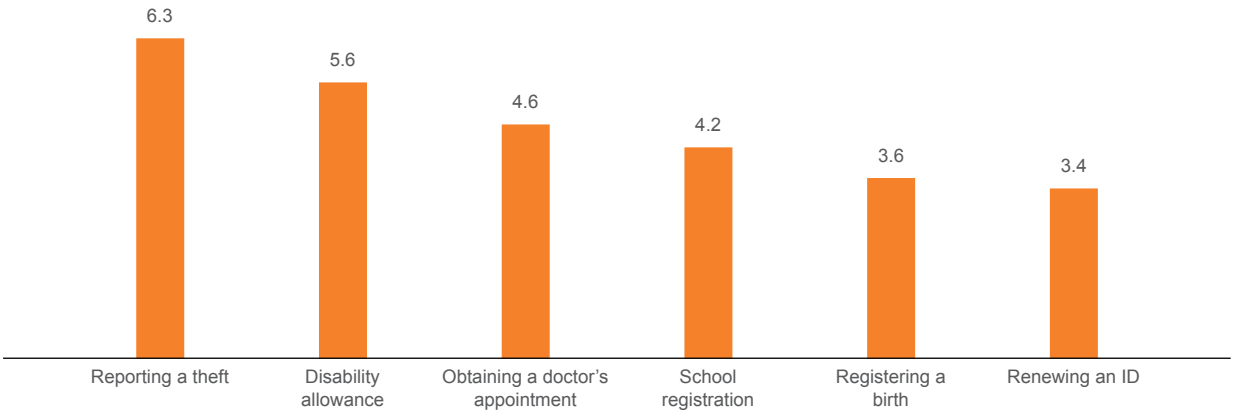
If one observes the average of expectations by country, one can appreciate that Chile and Paraguay are where there is most alignment between the expected and the received, while Ecuador has the greatest distance between them. In any event, the average of expectations was low in all countries.

Figure 7: Average Expectations by Country



Source: Authors' elaboration.

Figure 8: Average Regional Expectations by Service



Source: Authors' elaboration.

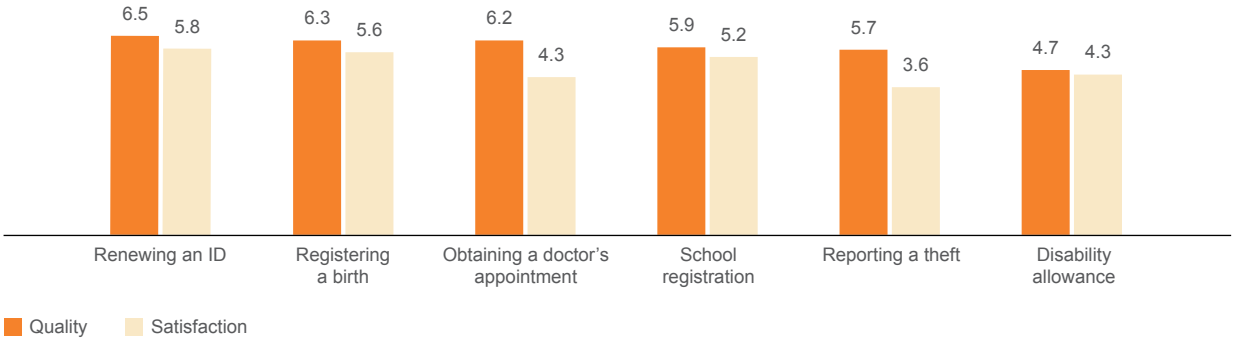
[59] This is the result of the way the question that picks up the expectations was formulated (Annex 2).
[60] This indicates that the prior information that citizens have does not match reality, since they believe their experience will be worse than what actually happens (the Basic Concepts section in Chapter 1 presents a description of the implications of the different values of expectations: low expectations tend to bring satisfaction down).
[61] Calculated by correlating the values of expectations with satisfaction for the 35 services rated in the external view.

When regional average of expectations by service is analyzed, three situations are distinguished. First, there is perfect alignment between prior belief and what happens (remember that equilibrium point is 5.5) for the *disability allowance* procedure. Second, the expectations for *reporting a theft* are high, indicating that citizens have become frustrated after undertaking the procedure. Lastly, the other services have low expectations on average (even, surprisingly, for *registering a birth* and *renewing an ID*), which means that citizens had a better experience than expected.

Considerable variability in quality and satisfaction levels: There is a significant difference between services in terms of quality and satisfaction. At one extreme, the *renewing an ID* procedure received on average the best rating, both in quality and satisfaction (6.5 and 5.8, respectively). At the other extreme, *disability allowance* received on average the worst rating for quality (4.7), while *reporting a theft* was given the lowest average satisfaction rating (3.6). Figure 9 shows these variations by service.

What citizens received was better than what they had expected.

Figure 9: Regional Average Quality and Satisfaction by Service



Source: Authors' elaboration.

As already analyzed above, even in cases of good performance in the regional context (*renewing an ID* and *registering a birth*), satisfaction levels are relatively low compared to other regions. This means that in all cases it would be appropriate to think about improvement projects. However, due to practically unavoidable budgetary restrictions, prioritization would be required. If the idea is to implement a cross-cutting improvement program with a prioritization criterion based on the quality and satisfaction levels of each service, these indexes show where to start.

However, different satisfaction levels can have multiple explanations. In many cases, they will have a high level of correspondence with the quality level (the correlation between the two variables is 0.38).[62] However, there are cases in which the level of satisfaction reported by citizens is largely explained by factors not related to transactional matters. This is the case, for example, for reporting a theft. In this case, even when the transaction is developed in accordance with best practices, citizens tend to include in their evaluation their experience as victims, which includes unpleasant and even traumatic moments. These types of cases require a more comprehensive analysis of the results of satisfaction, linking them with the type of service and its historical evolution.

Not all approaches to the best management practices would contribute significantly to citizen satisfaction.

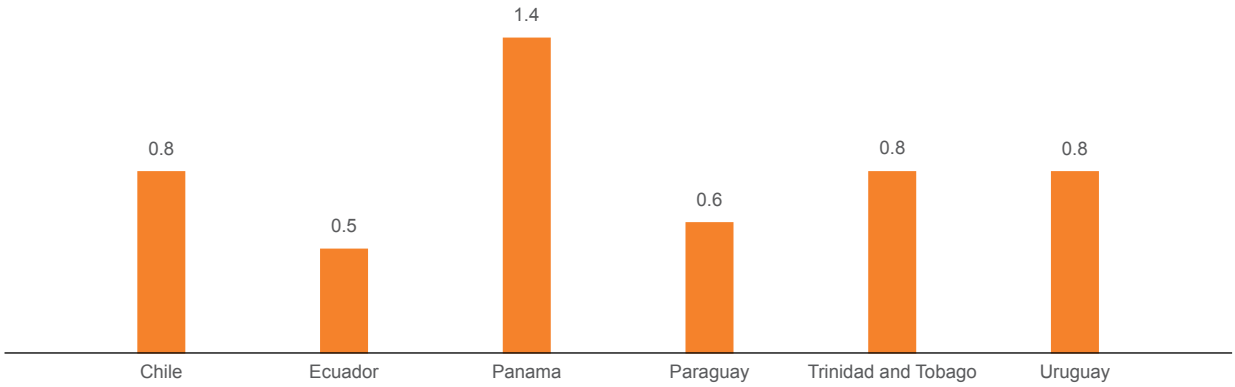
The case of the quality index is different. This index does reflect the situation of the various institutions in terms of the maturity and strength of their quality management systems. If the index is low compared to similar services in other countries or, even more importantly, if it is low compared to other services in the same country, the situation would be troubling. In such a case, it would be appropriate to determine if the problem is due to different management capacities or to a probable inequity in the budget allocation,[63] or both. In any event, it is an aspect that must be treated with transparency, analyzing causes and determining possible corrections.

The case of *disability allowance* is rather disturbing because it is not only the service with the lowest quality in the regional average, but also in each country.[64] Consequently, there could be a homogeneous view in the region with respect to the secondary priority of this service.

Another way to look at inequality among a country's services is through the standard deviation of the quality indexes of its institutions. Assuming the institutional maturity of each agency is more or less in line with the general level in the country, the expectation is that the standard deviation would be relatively small. If, however, a significant deviation were detected, the situation would be that some institutions have an exemplary performance (even at the regional level) while others provide very poor quality services. Thus it would be possible to speak of first and second-class institutions in the same country. In fact, the variance was more pronounced in some countries than in others. Figure 10 illustrates the standard deviation of the quality index.

[62] See the correlation analysis between quality and satisfaction in "The key may be in management of IT and citizens' relationships" later in this chapter.
[63] An unequal budget allocation would reflect policy decisions taken implicitly or explicitly by society and its governments.
[64] Strictly speaking, there is one exception: in Paraguay school registration has a lower rating, although they are practically equal.

Figure 10: Standard Deviation of the Quality Index in each Country



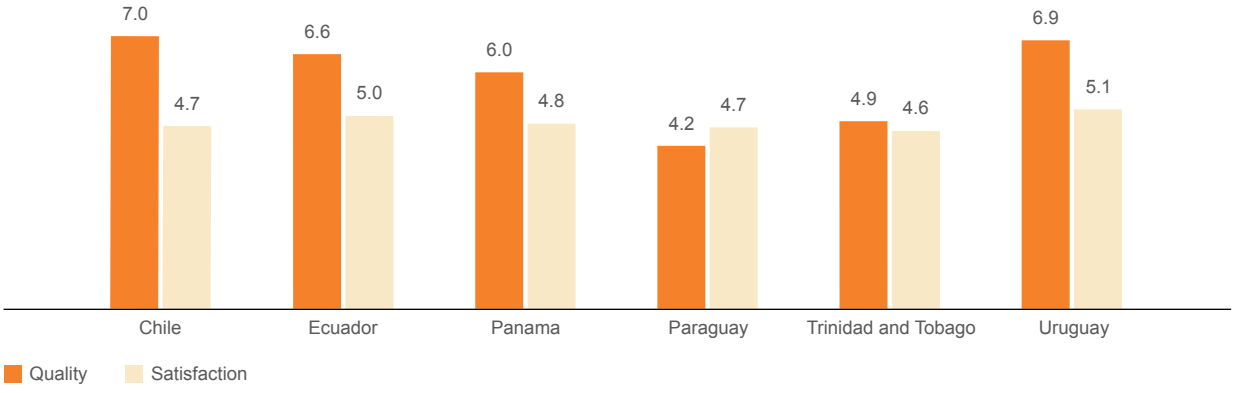
Source: Authors' elaboration.

Figure 10 shows, for example, that in Ecuador and Paraguay the quality level is more homogeneous, while Panama has larger deviations.

Figure 11 shows the average quality and satisfaction for each country. There is significant variation in quality: between 4.2 and 7.0; whereas, average satisfaction by country shows only moderate variation: between 4.6 and 5.1.

Hence, it could be deduced that the relationship between quality and citizen satisfaction levels may not be proportional.[65] This has important implications for the design of solutions, since not all approaches to the best management practices would contribute significantly to citizen satisfaction.[66]

Figure 11: Average Quality and Satisfaction by Country



Source: Authors' elaboration.

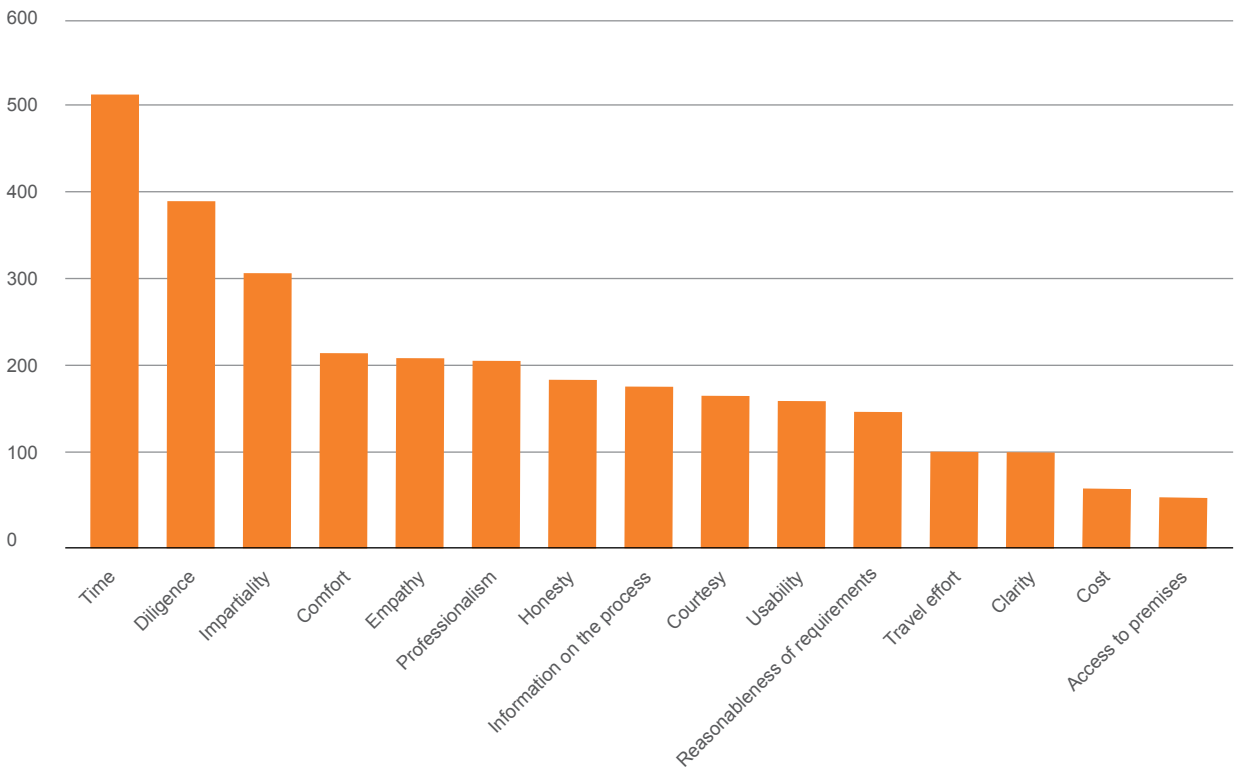
[65] The differences could be explained by the way the two variables are defined and measured. Satisfaction is strongly dependent on citizens' expectations before receiving the service. In turn, expectations depend on the information that citizens have on the overall quality of services in their country, both public and private, and on the specific procedure to be undertaken. However, citizens do not usually know about quality levels in other countries, or what the best management practices are. And even when they do know, they are not expected to include this information in their rating. So quality and satisfaction are variables that can vary with certain independence.

[66] There is a possibility that the contribution of quality to satisfaction always in fact exists, but with a lag. This aspect cannot be determined with this study without regular implementations.

Time is gold (or, at least, the most important)
In the regional average, the three most important attributes of citizen satisfaction are (in order of importance): (i) total processing time, (ii) the diligence of officials (not causing unnecessary delays), and (iii) impartiality (fair treatment). These are followed at some distance by: (iv) comfort of the service center, (v) empathy of officials (consideration of special cases), and (vi) professionalism of officials (i.e., their knowledge). Figure 12 shows the regional averages for all attributes.

For each service analyzed, the set of most important attributes varies; however, there are certain constants. As a rule, the three most important attributes in all countries are *time*, *diligence*, and *impartiality*, with the exception of Trinidad and Tobago (where the third most important attribute is *honesty*) and Paraguay (where it is *empathy*). Paraguay is also the only country where, on average, the most important attribute is not *time*. In each country, the average order of importance of the attributes was as shown in Table 3.

Figure 12: Regional Average of the Importance of Attributes



Source: Authors' elaboration.

Table 3: Relative Importance of Attributes by Country

Attribute	Chile	Ecuador	Panama	Paraguay	Trinidad and Tobago	Uruguay
Time	1	1	1	2	1	1
Diligence	2	3	2	1	2	3
Impartiality	3	2	3	4	4	2
Comfort	4	10	5	6	5	5
Empathy	10	4	10	3	11	4
Professionalism	8	6	7	5	7	7
Honesty	7	11	8	9	3	8
Information on the process	5	5	11	10	8	9
Courtesy	11	7	9	7	6	10
Usability	9	9	6	8	12	11
Reasonableness of requirements	12	12	4	13	13	6
Travel effort	6	14	12	14	14	13
Clarity	14	8	13	11	10	
Cost	13	15	15	15	9	12
Access to premises		13	14	12	15	14

Source: Authors' elaboration.

The information on important attributes presented here is not actionable because it relates to regional or country averages. However, the information collected by the Simplifying Lives project contains a deeper analysis that identifies the important attributes for each of the 36 services studied. The analysis of each service presents the three most important attributes for each one in each country.[67]

Analysis of the importance of attributes for each of the 35 services, along with their respective performance is a very important result, because it indicates what needs to be improved in each case. More than anything, citizens will appreciate a rapid improvement in the attributes that are most important and of low performance. From these data, the manager of each service can set improvement goals to optimize citizen satisfaction. In most cases it will be, more than anything, reducing the time spent by citizens. As a second priority, work will have to be done on the professional training and attitudinal aspects of officials. At the third level of priorities, interventions would include improvements in service centers and information on the procedures.

It is worth noting that some variables were part of the hypothetical model of drivers of satisfaction, which were later found to be unimportant. For example, the variable "Value" (PG_7)—which attempted to measure the value each service provides to citizens—was not found to be relevant to satisfaction. On the other hand, the variable "Reasonableness of requirements" (PP_9) turned out to have some relevance in certain services but was distant from the most important attributes.

It is worth recalling here that, to supplement the analysis of the importance of the attributes of satisfaction, a predictor model was designed, as explained in the Predictive Model section of Chapter 1. The tests with this model allow different improvement scenarios to be tried out to see their possible impact on satisfaction.

The online channel is barely used for transactions

Service channel used: Table 4 provides average satisfaction by service channel used.

[67] See Results by Service section.

Table 4: Average Satisfaction by Service Channel

	Face-to-face		Telephone		Online	
	%	Satisfaction	%	Satisfaction	%	Satisfaction
Chile	95	4.8	5	3.8	0	-
Ecuador	78	5.1	19	4.6	3	4.5
Panama	86	4.8	12	4.6	2	5.1
Paraguay	100	4.7	0	-	0	-
Trinidad and Tobago	93	5.0	7	3.4	0	-
Uruguay	97	5.2	3	4.9	1	4.6

Source: Authors' elaboration.
Note: For the telephone channel and, especially, for the online channel, the number of respondents is very small, implying that the results can only be interpreted as a finding or possible trend.

The first conclusion to be drawn is that use of the online channel is extremely low. In the set of services evaluated, several activities must be completed in person, which is not the case for *obtaining a doctor's appointment*, *reporting a theft*, or *school registration*. There are even countries (e.g., the United States) where IDs can be renewed remotely (via online application and received by mail).

This point is extremely important since the results obtained in other countries indicate that online services not only improve efficiency for the government and lower transaction costs for citizens, but also have higher levels of satisfaction similar to those in the private sector.[68]

In Panama, *obtaining a doctor's appointment* is the only service that allows a channel-based analysis (as trend). In this case, 37 users (9.2 percent) reported having completed the online procedure. The trend in this case is that, when the procedure is online, the level of satisfaction is higher than when it is by phone. Table 5 shows the trends identified.

Table 5: Obtaining a Doctor's Appointment in Panama: Trends for Expectations, Satisfaction, Trust in the Institution, and Processing Time by Service Channel

Service channel	Expectations	Satisfaction	Trust in the institution	Processing time
In person	3.0	4.8	5.8	6.0
Telephone	3.4	4.6	5.2	6.3
Online	3.6	5.1	5.9	6.6
Average	3.3	4.9	5.6	6.3

Source: Authors' elaboration.

[68] See Figure A6.8 of Annex 6.

Use of the telephone channel is also very low so the results cannot be taken as conclusive (the exception is Ecuador, where use of the telephone channel is significant). That said, the data indicate a significant difference between the in person and telephone channels with a higher level of satisfaction in the in person channel.

The preferred service channel: The questionnaire included a question on the channel that the respondent would have preferred to use for the service. Note that the fact that the survey has been online probably introduces a bias in favor of that channel.[69] Consequently, it is likely that the preference for that channel is actually lower than detected. Table 6 shows the service channels preferred by informants for each country.

Table 6: Preferred Channel by Country (%)

	In person	Telephone	Online	No preference
Chile	2.00%	8.64%	42.25%	47.12%
Ecuador	7.96%	6.50%	49.86%	35.67%
Panama	3.40%	12.37%	40.95%	43.28%
Paraguay	0.20%	16.97%	35.64%	47.20%
Trinidad and Tobago	0.76%	8.97%	53.19%	37.08%
Uruguay	1.22%	17.85%	31.50%	49.44%
Average	2.79%	12.17%	41.08%	43.96%

Source: Authors' elaboration.
Note: The "No preference" group includes users who either do not prefer another modality of access to the one used or do not consider the customer service channel important.

Online services not only improve efficiency for the government and lower transaction costs for citizens, but also show higher levels of satisfaction.

[69] It is not possible to determine the size of this possible bias. Similarly, a face-to-face survey would introduce a bias in favor of the face-to-face channel.

On average, 44 percent have no preference for an alternative channel to the one used (in person), while 41 percent would have preferred the online alternative. This is consistent with the set of attributes that are most important for citizens, since the online channel contributes to a considerable improvement in *processing time*, *diligence*, and *impartiality* (top three).

Table 7 shows the preferred modality by socio-demographic cutoffs.

Table 7: Channel Preference by Gender, Age Group, and Socioeconomic Level (%)

	In person	Telephone	Internet	No preference
Gender				
Female	2.15%	12.34%	39.80%	45.71%
Male	4.09%	11.82%	43.70%	40.38%
Age group				
18–24	3.07%	12.08%	40.54%	44.31%
25–29	2.54%	11.60%	42.48%	43.38%
30–39	2.31%	9.20%	45.14%	43.34%
40–49	3.12%	13.83%	40.56%	42.49%
50–59	3.73%	15.01%	36.41%	44.85%
60 +	2.78%	17.86%	30.85%	48.51%
Socioeconomic level				
High	1.67%	10.47%	53.72%	34.14%
Middle	2.58%	11.34%	44.45%	41.63%
Low	3.30%	12.95%	37.28%	46.46%
Average	2.79%	12.17%	41.08%	43.96%

Source: Authors' elaboration.
Note: "High" includes citizens who answered "High" or "Medium High," and "Low" includes citizens who responded "Low" or "Medium Low."

The preferences of women and men are similar. With respect to age, it is not the youngest who most prefer the online channel, but the 30–39 segment. In contrast, it is the oldest age group that least prefers this option and instead opt for the telephone channel. Finally, the socioeconomic cutoff did not produce surprises, with the highest segments being most interested in an online channel. It could be said that both the age and socioeconomic analyses reflect digital divides.

The key may be in management of IT and of citizens' relationships: Another aspect of interest is the correlation between quality and satisfaction. Both variables were measured with completely independent methodologies: quality with a questionnaire answered by the service managers and their teams, and satisfaction with a different questionnaire answered by citizens. The quality index and its subindexes (dimensions) are composite indexes that reflect the distance from good management practices. In contrast, the satisfaction index is constructed from a direct evaluation by citizens who do not always know and consider the best management practices when making their judgments. However, the objective is that the measurements reflect two perspectives of the same event and, therefore, have a relatively high correlation.

The correlation analysis between satisfaction and each of the quality dimensions (process, resources, IT, management and regulations, and relations with citizens),[70] would indicate a relatively stronger link between the satisfaction experienced by citizens and the levels of quality of IT management and of citizen relationship management. Table 8 shows the correlation between satisfaction and quality and each of its five dimensions.

There would be a relatively stronger link between the satisfaction experienced by citizens and the levels of quality of IT management and of citizen relationship management

Table 8: Correlation of Satisfaction with Quality and its Dimensions

	Process	Resources	IT	Management and regulation	Citizen relationships	Quality
Disability allowance	0.54	0.62	0.52	-0.25	-0.03	0.51
Obtaining a doctor's appointment	0.81	0.32	0.33	-0.35	0.56	0.79
Reporting a theft	0.00	-0.48	0.00	-0.31	-0.53	-0.21
Registering a birth	-0.27	0.13	-0.48	-0.12	0.25	-0.11
School registration	0.61	-0.28	0.53	-0.37	0.70	0.49
Renewing an ID	0.70	-0.26	0.80	0.57	0.32	0.67
Global	0.08	0.17	0.54	0.20	0.48	0.38

Source: Authors' elaboration.
Note: The correlation analysis was performed as follows:
• For the global correlation between satisfaction on one hand and quality and its dimensions on the other, the score used was obtained by these variables for each service in each country. This involves 36 samples (one for each of the six services in each of the six countries). The six correlations with satisfaction were then calculated (one for quality plus one for each dimension).
• For the correlation with respect to a specific service between satisfaction on one hand and quality and its dimensions on the other, six possible samples for that service (one per country) were used.
Clearly, the number of samples is very low; therefore, the results should only be taken as approximations.

[70] It should be recalled that the dimensions model is a simplifying abstraction of reality. In practice, the five dimensions are interwoven and cannot be clearly separated. For example, a process cannot be defined without considering the IT used to implement it, or separating both from management of relations with citizens.

The correlation with quality is medium to high for all services except for *reporting a theft* and *registering a birth*, where there is a minimum inverse correlation. The most plausible explanation for these exceptions is that citizens' satisfaction is being affected by factors that go beyond quality.

The case of *reporting a theft* is the clearest and denotes that citizens have failed to separate the process of making the report from the context in which they make it: the situation recently experienced, which could be more or less traumatic and, perhaps, the negative result of not having been able to recover the stolen goods. In the case of *registering a birth*, at first sight no similar external effect is observed.

Correlation with the *process* dimension is surprisingly low, which is the dimension that encompasses the attribute most valued by citizens: processing time. To explain this singularity we must leave aside the global average and consider the correlation for each service. The low correlation has to do with *reporting a theft* and *registering a birth*, which, as already explained, are procedures with a singular behavior. For the other services the correlation is medium or high.

Another aspect of the correlation between quality and satisfaction to be considered is the existence of multiple provider institutions. In these cases, analysis of the internal view shows the situation of a single institution (the most relevant), whereas analysis of the external view can in some cases include responses associated with a different institution. This may be the case for *reporting a theft* in Chile, Panama, and Trinidad and Tobago.

This identification of different levels of intensity in the relationship between satisfaction and each area that makes up management of the service is a very important result since it indicates which aspects contribute most to satisfaction. A high level of consistency can be seen between this result and the set of attributes that are most important for citizens.

IT management has undeniable potential to reduce the time spent by citizens and improve the diligence of officials (because IT is above all a tool for improving productivity). IT can also contribute to the impartiality of the procedures by reducing the number of intermediaries and space for discretion that some officials could exercise inappropriately.[71] The high correlation between IT and satisfaction is also consistent with the preference for the online channel, as indicated in the previous section. Additionally, management of relations with citizens encompasses all aspects of contact between citizens and institutions. In this respect, it covers management of the technical and attitudinal capacities of officials, comfort of the service centers, and the information channels: every one of these aspects is very important to citizens.

The services that require greater attention were indicated in previous sections. It was then shown how analysis of the importance of attributes was used to identify what citizens value most in each service. And now the aspects of management that require measures to improve citizen satisfaction are indicated. The next step is to perform a more detailed analysis in order to design the specific actions that need to be taken. These studies are outside the scope of the Simplifying Lives project.

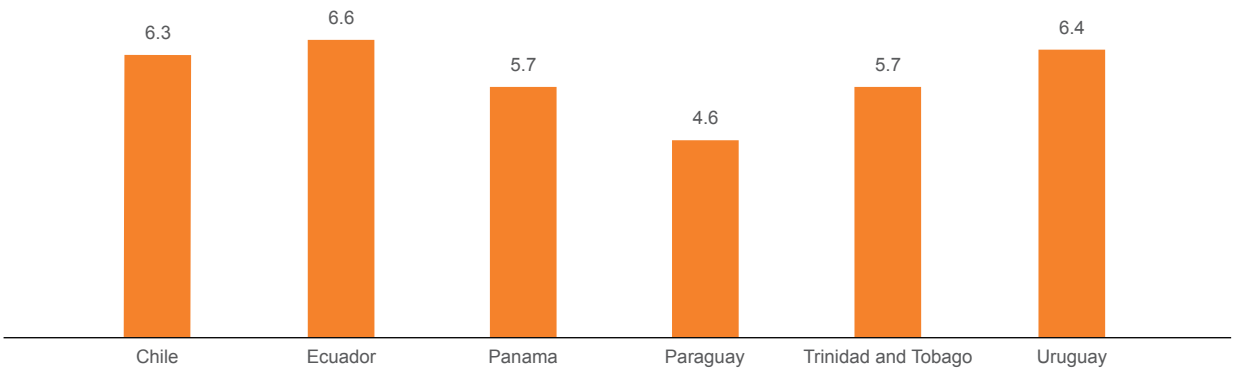
[71] Discretion is not in itself a negative aspect, rather the opposite. For workers, in this case public officials, to work efficiently and add value, they must have reasonable room for discretion in making decisions and participating in innovative processes. The problem arises when, because of cultural or personal issues, this room for discretion is misused. In these cases, unfortunately, the level of control must be raised, both ex-ante and ex-post, which brings with it an increase in the complexity, processing time, and operating costs of the process.

We trust institutions: The regional average of trust in the service provider institution was 5.9, a value significantly above satisfaction. This is the only key variable with positive average score (above the mean of the scale). It is certainly positive that the perception of institutions is relatively good; however, it is not clear if this good image has a firm support base.

The pending question is why, if the image is relatively high, satisfaction was relatively low. One answer might be based on the previous good record of the institutions, which could be nearing a turning point. It might also be that citizens appreciate the institution more because of the other services offered rather than because of what was analyzed in the framework of the Simplifying Lives project. In any event, either because the quality has begun a downward phase, or because it is heterogeneous, this could be a warning sign.

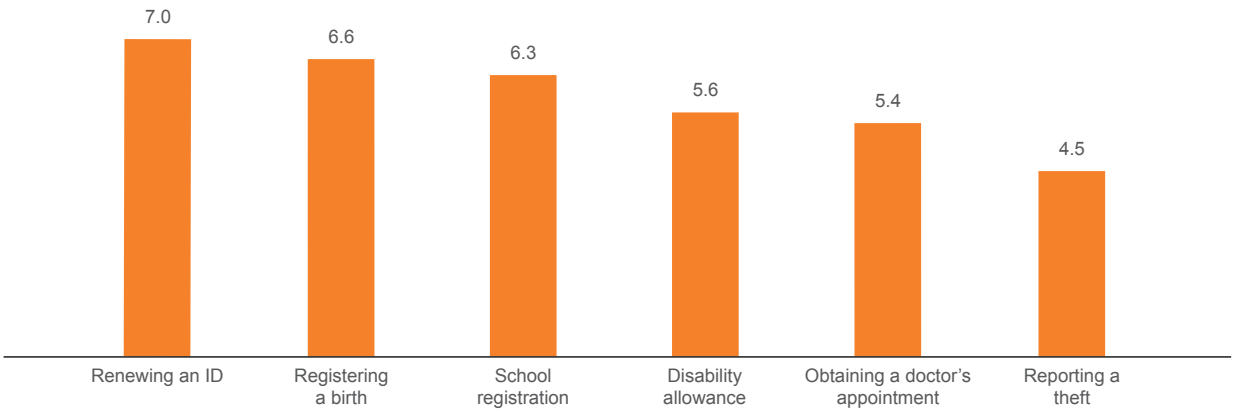
It should be mentioned that variability was very high across the region. The institutions that issue identity cards enjoy most trust, while those with lowest trust are the ones that receive reports of theft. The institution with least trust obtained a rating of 3.3 and the one with most, 7.9. Figures 13 and 14 show average trust by country and by service.

Figure 13: Average Trust in the Provider Institution by Country



Source: Authors' elaboration.

Figure 14: Regional Average Trust in the Service Provider Institution



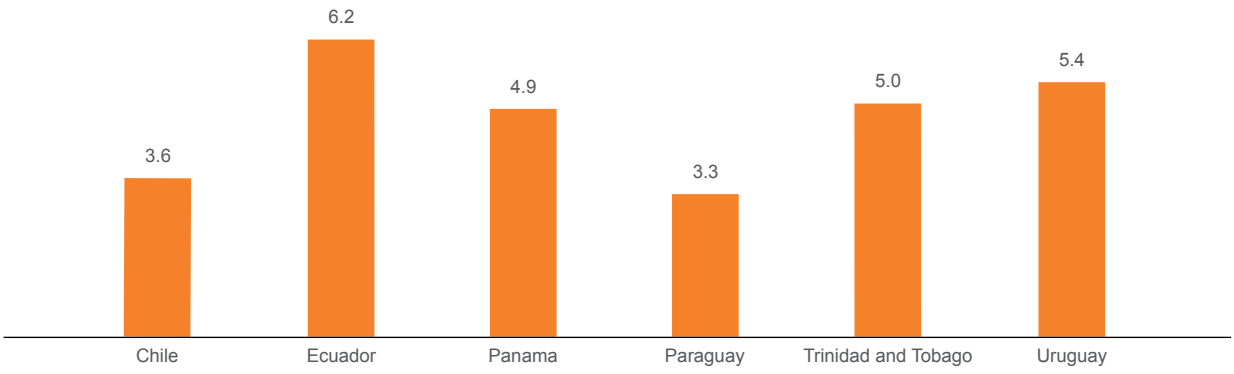
Source: Authors' elaboration.

Figure 13 shows that, except in Paraguay, average trust in the provider institution is positive (greater than 5.5), peaking in Ecuador. Figure 14 shows that trust in the institution is high for institutions that renew IDs and low for those receiving complaints. It is evident that the type of service affects these ratings although, clearly, it is not the full explanation.

Finally, the impact of satisfaction on trust in the provider institution was estimated by linear regression, which produced a moderate average coefficient (0.54). This indicates that satisfaction with the evaluated procedure has an average level of influence on citizens' perception of the institution.

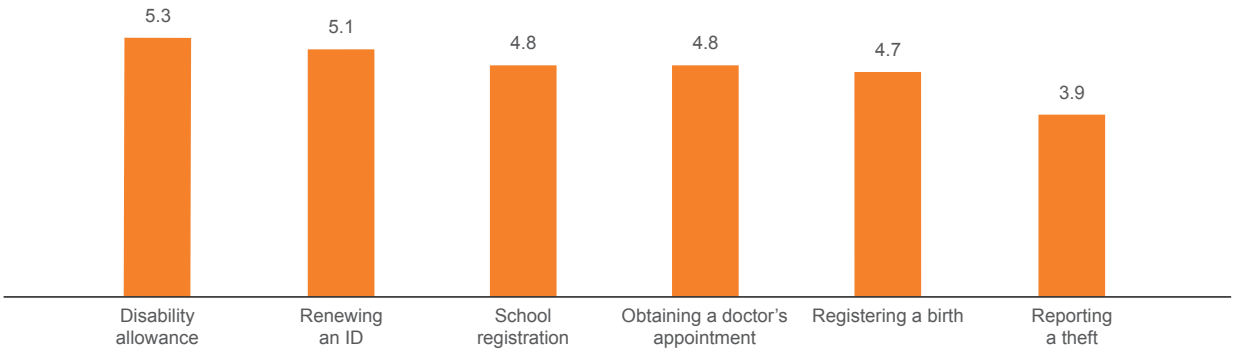
But we don't trust government: Regional average trust in government was 4.7, a value below trust in institutions. However, there was a high level of variability among the six countries (3.3 to 6.2). Only Ecuador has positive trust in government (greater than 5.5). Figures 15 and 16 show average trust by country and by service.

Figure 15: Average Trust in Government by Country



Source: Authors' elaboration.

Figure 16: Regional Average Trust in Government by Service



Source: Authors' elaboration.

Figure 16 shows that, when comparing the behavior of this variable by service, variability is reduced, with an exceptional situation in the case of *reporting a theft*, the same as in the case of trust in institutions.

Finally, the impact of satisfaction on trust in government was estimated by linear regression, resulting in a low average coefficient (0.29). This indicates that satisfaction with the evaluated process has a low level of influence on citizens' perception of government. In other words, there are other factors, independent of quality of services, that are having a negative effect on general trust in government.

Quality and perception of corruption: The correlations were calculated between quality and satisfaction on one side and a series of relevant socioeconomic variables on the other (see Annex 6). The results are presented in Table 9. It should be recalled that the number of samples is too small to take the data as definitive; rather, they should be considered preliminary approximations.

*

A significant correlation (0.70) was identified between the level of quality of services and the low levels of perceived corruption.

Table 9: Correlation of Quality and Satisfaction with the Key Demographic and Socioeconomic Variables

	Chile	Ecuador	Panama	Paraguay	Trinidad and Tobago	Uruguay	Correlation with quality	Correlation with satisfaction
Quality	66	62	56	36	43	61		
Satisfaction	47	50	48	45	46	51		
Population (M)	17.8	15.9	3.87	6.55	1.35	3.42	0.58	0.05
Population density	22	63	46	42	258	19	-0.48	-0.37
9th grade completion rate	0.93	0.88	0.73	0.73	0.81	0.74	0.55	-0.02
GDP per capita (US$M)	14.5	6.32	11.9	4.73	18.1	16.8	0.25	0.20
% Internet users	72.4	43.0	44.9	43.0	65.1	61.5	0.32	0.00
Perception of corruption	73	33	37	24	38	73	0.70	0.48
Urban population (%)	0.89	0.64	0.66	0.59	0.09	0.95	0.67	0.54
GINI	50.4	47.3	51.7	48.3	-	41.9	-0.09	-0.72

Source: Authors' elaboration.
Note: To calculate the correlations, only six samples (one per country) were used. In the future, it would be useful to test the results with a larger number of countries. The quality and satisfaction figures are taken from this study, the figures for perception of corruption from Transparency International, and the others from The World Bank.

A significant correlation (0.70) was identified between the level of quality of services and the low levels of perceived corruption. This result should not be surprising considering, because of how quality is defined, a high score corresponds to a high level of automation of decision-making, greater control of processes and of information, and closer relations with citizens. Reciprocally, incentives to improve quality are usually limited in an environment with relatively high levels of corruption. A high correlation with the rate of urban population was also identified.

Satisfaction shows a very strong inverse correlation (−0.72) with inequality; it is not easy to explain this relationship. A high correlation of satisfaction with the rate of urban population was also identified.

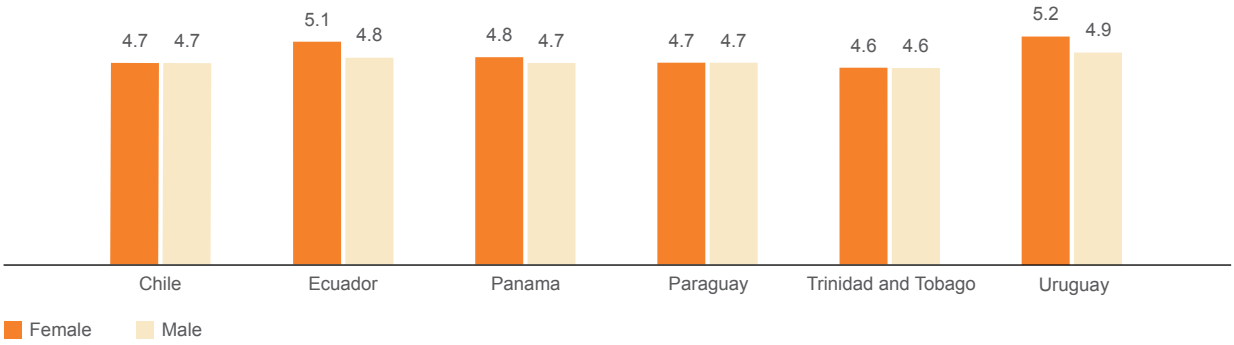
Gender, ethnicity, and area of residence

Gender: The analysis of satisfaction by gender reveals that there is practically no difference in this area. In general, the minimal differences that have been identified show a slightly higher satisfaction among women, with the exception of Paraguay, where the difference was reversed. In Ecuador and Uruguay, the difference is greater. This result is consistent with measurements taken in the private sector that identify greater satisfaction among women (Fornell, 2007). Satisfaction levels by gender and by country are provided in Figure 17.

Ethnicity: With respect to the differences in ethnic profile, the study came up against the difficulty that the number of respondents who identified themselves with minority groups in the countries analyzed was insufficient to obtain statistically representative results with the technique used. Consequently, in most cases it was not possible to draw conclusions. To determine satisfaction among indigenous populations, face-to-face techniques would have to be used, which would certainly be significantly more expensive.

The only cases where it was possible to extract ethnic information (only as trends) were Panama and Trinidad and Tobago. In Panama, there were no changes in the satisfaction level among respondents who identified themselves as Afro-Panamanians (4.75) and those who did not consider themselves black or of African descent (4.80). In Trinidad and Tobago, where the main groups are Africans and Indians, likewise there was no significant difference in satisfaction levels, although there was in levels of trust. The Indian group reported higher levels of trust than Africans, particularly in government (6.86 versus 3.88).

Figure 17: Average Satisfaction by Gender and Country



Source: Authors' elaboration.

Area of residence: The results for satisfaction by type of area of residence (rural or urban) are presented in Table 10.

Table 10: Average Satisfaction by Area of Residence

	Rural		Urban	
	%	Satisfaction	%	Satisfaction
Chile	8	4.6	89	4.7
Ecuador	16	5.2	80	5.0
Panama	15	5.0	80	4.7
Paraguay	5	4.7	92	4.7
Trinidad and Tobago	17	5.3	71	4.8
Uruguay	6	5.3	90	5.2

Source: Authors' elaboration.
Note: The percentages of urban and rural populations in the sample do not add up to 100 because some respondents selected the "Don't know" option; that is, they did not identify with either of the two categories.

The underrepresentation of rural population significantly decreases the accuracy of the result for that segment. That said, the data indicates a significant similarity for both types of residence, with a slightly higher level in rural areas (Chile is the only exception), with a maximum difference in Trinidad and Tobago.

Results by Service

This section presents and analyzes the results of proof of concept, focusing on each service (the full definition of each service analyzed is given in Annex 1). The analysis attempts to identify characteristics common to each service across the region and also to analyze the differences that may exist between countries in each case.

It is worth recalling that the procedures analyzed in this project are in some cases the core of a service while others are only the gateway to a more extensive service. For this second group, it may be that there are differences, for example, between the quality of school registration and the overall quality of the education system, between the quality of obtaining a doctor's appointment and the overall quality of the health system, or between the quality of the process involved in reporting a theft and the overall quality of the citizen security system. However, if a direct relationship is found between the quality of the transactional part and the whole of the provider institution, the quality indicator of the Simplifying Lives project can be used as representation of the overall quality of the service.

The six services considered belong to one of the three categories listed below. This classification is important since it affects the level of satisfaction experienced by citizens.

- Obtaining a benefit (*disability allowance*).
- Services (*obtaining a doctor's appointment*, *school registration*, and *reporting a theft*).[72]
- Obligation derived from regulations (*registering a birth* and *renewing an ID*).

In this chapter the same data as presented in the general analysis are analyzed, but with a specific and more exhaustive view of each service. In particular:

- Quality and satisfaction: Analysis of variability for each service and performance of the various quality dimensions.

[72] For people who cannot access private education, general education is generally a service of compulsory consumption.

• Expectations: Analysis of their distance from the neutral point (5.5).

• Importance of attributes: Although there are approximately 10 important attributes in each case, for simplicity only the performance of the three main ones are shown and analyzed in each case.

• Impact of satisfaction on trust in the institution and in government: This impact is expressed through the coefficients of the linear regressions performed for each of the confidences, for each service, and in each country. These coefficients indicate the change in trust because of a unit change in satisfaction, which gives an idea of how much impact these variables have on satisfaction.

Lastly, the best practices identified for each service are presented at the end of each section.[73]

Application for evaluation or a *disability allowance*: One of the project's first activities was to establish a uniform definition of each service. For this service, the criterion was to consider the most important procedure for access to some of the most common benefits for disabled people. However, it was not possible to unify the definition so the work was done with two definitions, according to the most relevant variant in each country: in some cases, application for disability evaluation and, in others, application for a benefit associated with a disability.

For practical purposes of the study, this procedure is called *disability allowance*.

For Chile, Panama, Trinidad and Tobago, and Uruguay the application was considered an economic benefit, while for Ecuador and Paraguay the application was considered a disability evaluation.

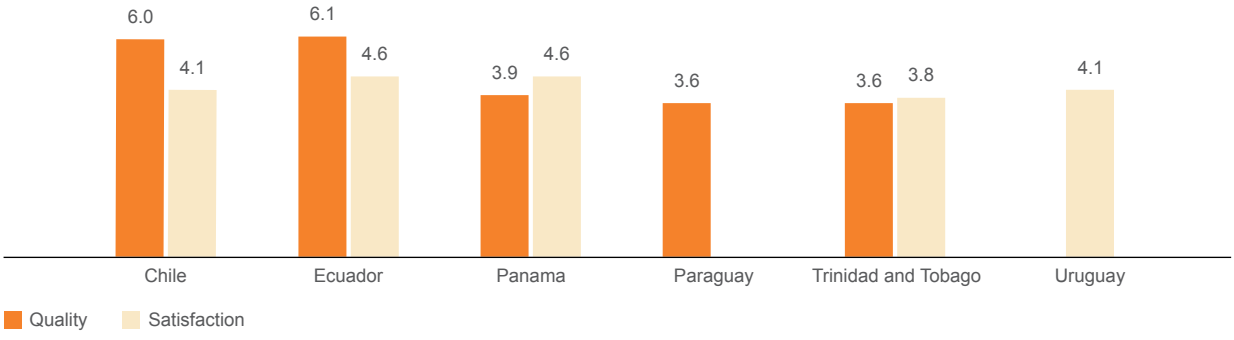
For this service, it was not possible to measure the internal view in Uruguay or the external view in Paraguay. In the latter case, this was because the service had had a very small number of users over the past year. In principle, there may be two factors that explain this extremely low demand: (i) the service is only provided in Asuncion (people with disabilities in the rest of the country, along with their caregivers, have to travel to the capital to complete the procedure) and (ii) the usefulness of the procedure is also very low compared to the other countries (people with certified disabilities receive virtually no benefits, so in many cases the procedure is not worth the effort).

Analysis of data:

1. Quality and satisfaction. Figure 18 shows the variation in the region.

The figure indicates a significant variation in quality, with positive scores (above 5.5) in Chile and Ecuador. It should be noted, however, that these are the lowest

Figure 18: Disability Allowance – Quality and Satisfaction



Source: Authors' elaboration.

[73] Note that the list is not necessarily complete and that some of the services rated may have good practices not listed here due to unintentional omission.

ratings in each country compared to other services. Satisfaction shows more moderate variations. The scores received by each country in each quality dimension are presented in Table 11. The table shows that the IT dimension is the weakest, very distant from the rest. This failure to exploit IT potential could be one of the factors that best explains the low levels of quality and satisfaction for this service.

2. Expectations. Figure 19 shows the variation in the region.

The figure shows that expectations are very close to reality (5.5), with a suggestion of frustration in Chile, Trinidad and Tobago, and Uruguay.

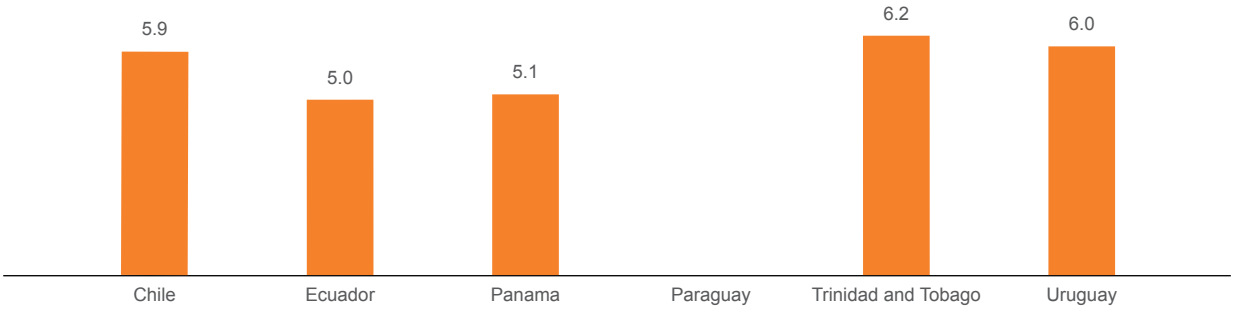
3. Importance of attributes. Table 12 shows the three most important attributes of this service in each country. The comfort attribute in Uruguay is the only case of performance above the country's mean. Only in Trinidad and Tobago is processing time not the most important attribute.

Table 11: Disability Allowance – Score of the Quality Dimensions in Each Country

Country	Quality index	Process	Resources	IT	Management and regulation	Relations with citizens
Chile	6.0	6.9	6.0	5.3	5.5	6.3
Ecuador	6.1	7.5	7.1	4.6	4.9	5.5
Panama	3.9	4.1	4.1	3.3	5.5	3.3
Paraguay	3.6	4.2	3.4	2.6	4.3	4.0
Trinidad and Tobago	3.6	2.6	3.7	2.3	7.3	4.8
Average	4.7	5.0	4.9	3.6	5.5	4.8

Source: Authors' elaboration.

Figure 19: Disability Allowance – Expectations



Source: Authors' elaboration.

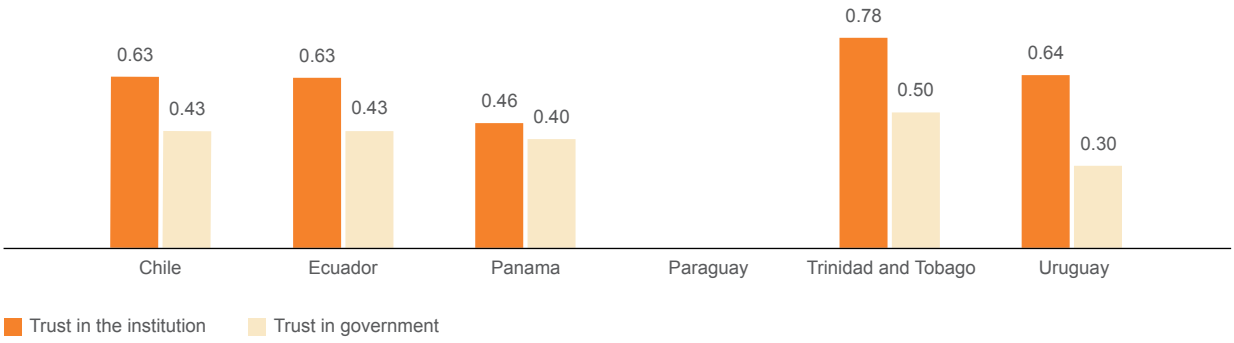
4. Impact of satisfaction on trust in the institution and in government. Figure 20 shows the linear regression coefficients between satisfaction and trust, which indicate the impact on the two types of trust derived from a unit change in satisfaction. The figure shows that the impact on trust in the institution is higher than the impact on trust in government (except Panama, where they are very similar), and that the impact on trust reaches the highest levels in Trinidad and Tobago.

Table 12: Disability Allowance – The Three Most Important Attributes in Each Country

Chile	Ecuador	Panama	Trinidad and Tobago	Uruguay
Processing time	Processing time	Processing time	Diligence	Processing time
Diligence	Diligence	Reasonableness of requirements	Honesty	Empathy
Reasonableness of requirements	Empathy	Cost	Impartiality	Comfort

Source: Authors' elaboration.

Figure 20: Disability Allowance – Linear Regression Coefficients between Satisfaction and Trust



Source: Authors' elaboration.

Identified good practices: In general, evaluation of a disability requires contact with the person; that is, attendance in person. This implies a special difficulty for the service, which is aggravated for those living in areas of low population density, where the state does not have the same opportunities to provide services as in large urban centers.

To deal with this, Chile has established partnerships with municipalities so that their officials can support users when making their applications. This has greatly improved relations with the most geographically isolated users. They have also set up partnerships with other agencies to give people with disabilities legal advice, health services, and delivery of resources, which has strengthened the capacity for assistance of the Ministry of Social Development (Ministerio de Desarrollo Social, or SENADIS).

Chile has been moving toward a care model that promotes the autonomy of disabled people, their rights, and social inclusion, which considers that assistance should go beyond treatment of the disabled person and include their family and social environment. As a result, since 2004 a survey has been conducted to find out how disabled people live during their life cycle and in each aspect of their lives. The results can be used to develop holistic public policies, design specific actions, and adapt benefits and technical assistance.

In line with the above (extension of benefits to the social environment) and considering that in many cases people are substantially or completely dependent on others for many activities, Panama has regulated permission for caregivers to accompany disabled people and dependents in terms of mobility to doctor's appointments and therapy. The aim is to avoid penalties for caregivers (e.g., because of repeated absences during working hours) or depending on the goodwill of the employer to authorize these absences.

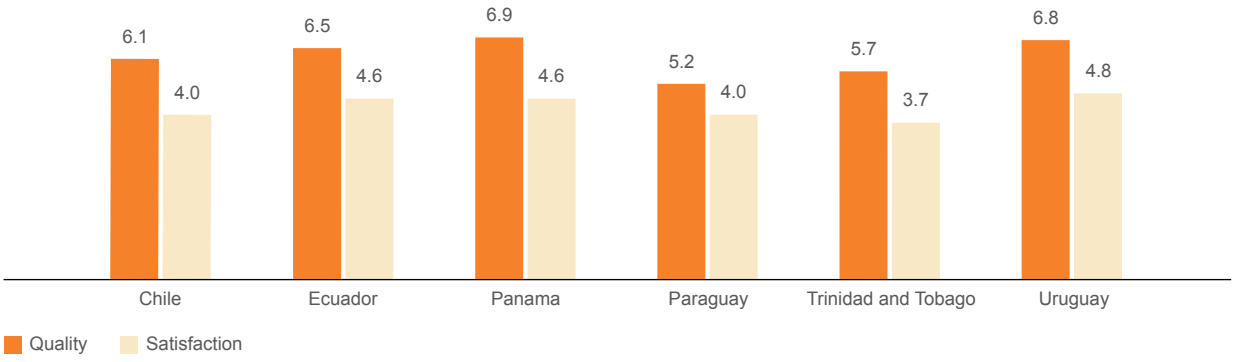
Obtaining a doctor's appointment in the public health system

Analysis of data:

1. Quality and satisfaction. Figure 21 shows the variation in the region.

The figure indicates that quality levels by country are generally positive. In terms of satisfaction, all countries are below the neutral point.

Figure 21: Obtaining a Doctor's Appointment – Quality and Satisfaction



Source: Authors' elaboration.

The score each country received in each quality dimension is provided in Table 13. The table shows that performance is high, especially in management of relations with citizens. The greatest weaknesses are in *resource management* and *IT*.

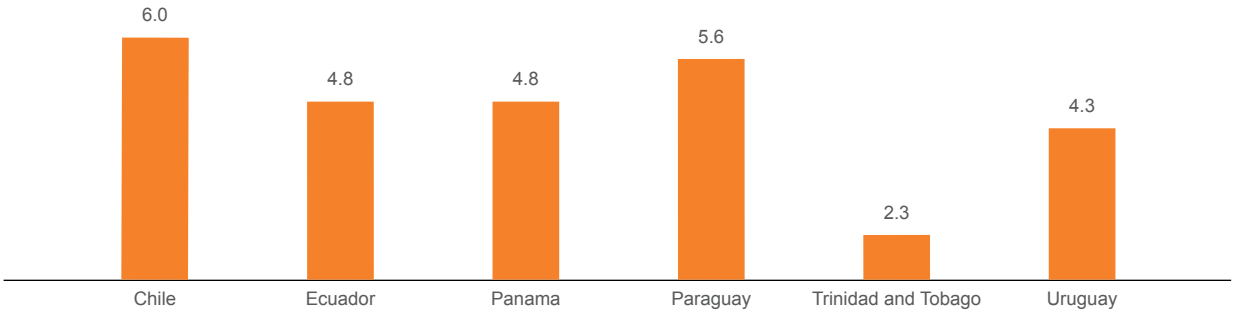
Table 13: Obtaining a Doctor's Appointment – Score of the Quality Dimensions of Each Country

Country	Quality index	Process	Resources	IT	Management and regulation	Relations with citizens
Chile	6.1	6.5	5.0	5.5	7.3	7.4
Ecuador	6.5	6.8	5.4	5.8	8.1	7.9
Panama	6.9	9.7	4.6	6.7	6.4	7.2
Paraguay	5.2	5.1	4.6	4.9	6.7	5.5
Trinidad and Tobago	5.7	5.1	5.4	4.8	7.8	7.2
Uruguay	6.8	8.9	6.0	4.6	6.6	8.5
Average	6.2	7.0	5.2	5.4	7.1	7.3

Source: Authors' elaboration.

2. Expectations. Figure 22 shows the variation in expectations in the region.

Figure 22: Obtaining a Doctor's Appointment – Expectations



Source: Authors' elaboration.

In Paraguay, expectations are aligned with reality (5.5), while there is a suggestion of frustration in Chile. In the other countries, citizens have had a better experience than expected, particularly in Trinidad and Tobago.

3. Importance of attributes. Table 14 shows the three most important attributes of this service in each country. The attributes that performed above a country's mean are processing time and impartiality in Uruguay. In all countries, processing time is the most important.

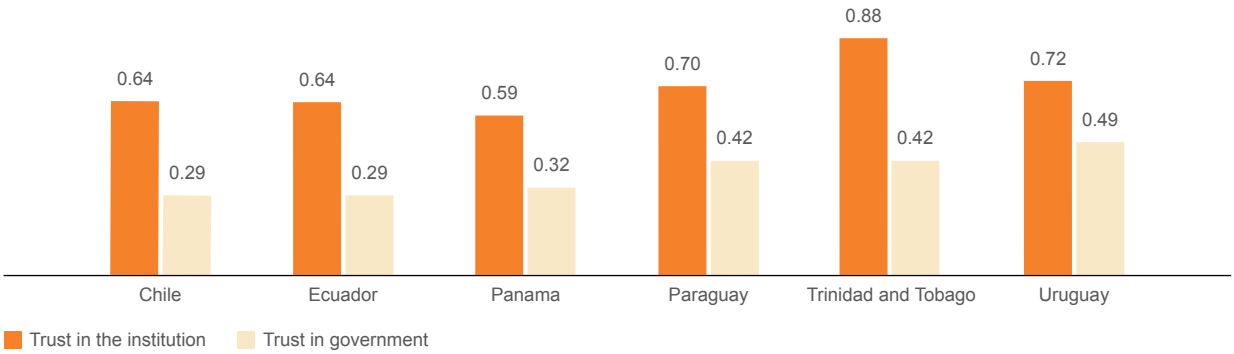
Table 14: Obtaining a Doctor's Appointment – The Three Most Important Attributes in Each Country

Chile	Ecuador	Panama	Paraguay	Trinidad and Tobago	Uruguay
Processing time	Processing time	Processing time	Processing time	Processing time	Processing time
Diligence	Professionalism	Impartiality	Empathy	Impartiality	Impartiality
Travel effort	Empathy	Diligence	Impartiality	Honesty	Diligence

Source: Authors' elaboration.

4. Impact of satisfaction on trust in the institution and in government. Figure 23 shows the linear regression coefficients between satisfaction and trust, which indicate the impact on trust derived from a unit change in satisfaction. The figure shows that the impact on trust in the institution is high and higher than trust in government. It also shows that the impact on trust in the institution reaches the highest level in Trinidad and Tobago, and the highest level for trust in government in Uruguay.

Figure 23: Obtaining a Doctor's Appointment – Linear Regression Coefficients between Satisfaction and Trust



Source: Authors' elaboration.

Identified good practices: Since obtaining a doctor's appointment has no cost and it is not possible to impose penalties for not attending, citizens often fail to attend without giving notice or not providing it sufficiently in advance. This causes serious problems for service management, especially the wastage of planned resources. Given this situation, Paraguay was implementing delivery of a notice to users with the cost of a consultation for the state, with the intention of creating awareness about the consequences of the irresponsible use of a free service.

Chile has an incentive system for officials (user treatment bonus) that is linked to providing a high-quality service and good performance, which involves measuring quality and satisfaction. Ecuador's programing system is strongly based on telephone contact. Satisfaction surveys are conducted immediately after every appointment. This information is used to improve the quality of service.

Of the 36 analyzed cases, only the doctor's appointment in Panama can be made through a mobile application. Although its use is incipient and therefore low, it is interesting to explore these possibilities, which can offer citizens more contact alternatives.

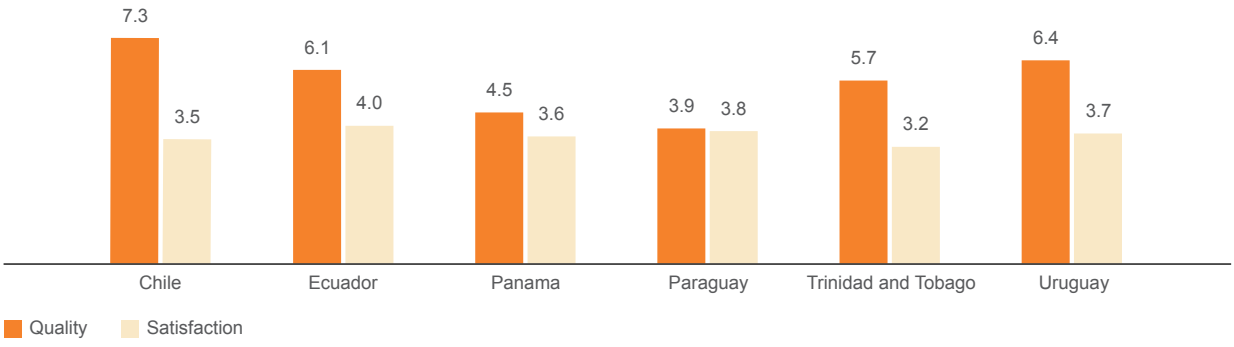
Of the 36 analyzed cases, only the doctor's appointment in Panama can be made through a mobile application.

Reporting a burglary or larceny (theft), where the victim was not hurt (*reporting a theft*)

Analysis of data:

1. Quality and satisfaction. Figure 24 shows a wide variation in quality levels by country.

Figure 24: Reporting a Theft – Quality and Satisfaction



Source: Authors' elaboration.

Although transactional aspects in some cases are being well managed, this is not reflected in satisfaction levels, which are low and fairly homogeneous in the region.

The score received by each country in all the quality dimensions is provided in Table 15. The table shows that, on average, performance for IT management is particularly low. This failure to exploit IT potential may be one of the factors that explains the low levels of satisfaction with this service.

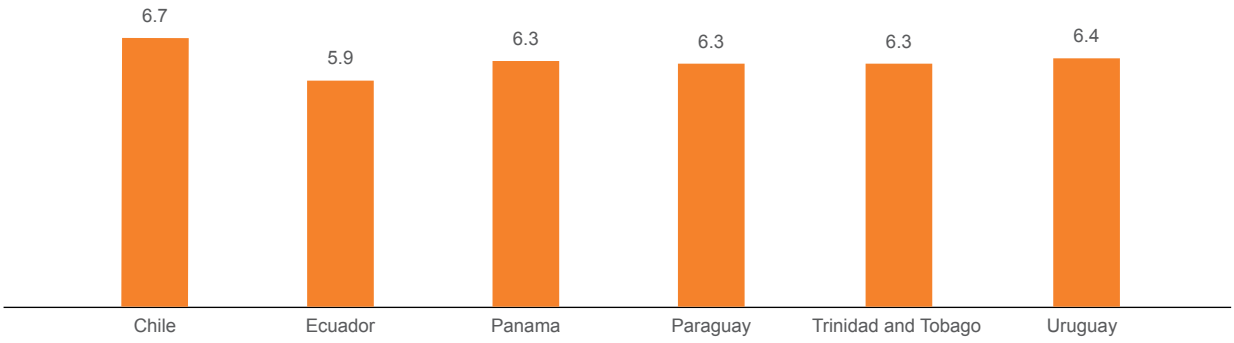
Table 15: Reporting a Theft – Score in Quality Dimensions of Each Country

Country	Quality index	Process	Resources	IT	Management and regulation	Relations with citizens
Chile	7.3	10.0	5.2	6.1	7.3	8.5
Ecuador	6.1	7.3	5.0	5.8	7.3	5.5
Panama	4.5	8.0	3.8	2.3	4.9	3.3
Paraguay	3.9	5.1	4.4	1.9	4.9	4.0
Trinidad and Tobago	5.7	5.5	5.8	4.3	7.6	7.2
Uruguay	6.4	7.8	5.2	6.9	6.7	4.8
Promedio	5.7	7.3	4.9	4.5	6.5	5.5

Source: Authors' elaboration.

2. Expectations. Figure 25 shows the variation in the region.

Figure 25: Reporting a Theft – Expectations



Source: Authors' elaboration.

The figure indicates that citizens in all countries expected more than what they finally received; as a result, there is frustration in all cases. It is likely that part of the explanation has to do with the characteristics of the service.

3. Importance of attributes. Table 16 shows the three most important attributes of this service in each country. This is the only case where the performance of the three main attributes was below the mean of the country in all countries.

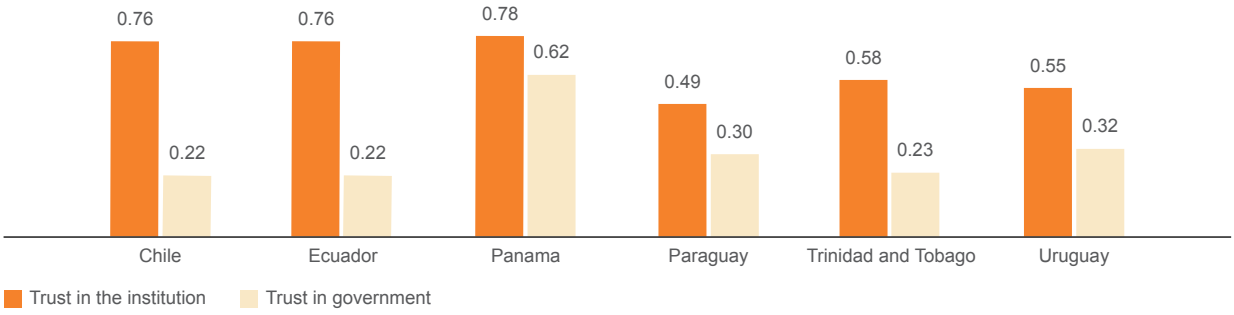
Table 16: Reporting a Theft – The Three Most Important Attributes in Each Country

Chile	Ecuador	Panama	Paraguay	Trinidad and Tobago	Uruguay
Processing time	Processing time	Diligence	Diligence	Processing time	Processing time
Impartiality	Diligence	Processing time	Processing time	Information on the procedure	Empathy
Empathy	Information on the procedure	Clarity	Empathy	Professionalism	Reasonableness of requirements

Source: Authors' elaboration.

4. Impact of satisfaction on trust in the institution and in government. Figure 26 shows the linear regression coefficients between satisfaction and trust, which indicate the impact on trust derived from a unit change in satisfaction. The figure shows that this service has the largest distance between the impact of satisfaction on one or the other trust and that the highest levels are found in Panama.

Figure 26: Reporting a Theft – Linear Regression Coefficients between Satisfaction and Trust



Source: Authors' elaboration.

Identified good practices: Only Uruguay offers the possibility of filing a report through the online channel.[74] However, the possibilities of using the modality are still very low because it requires either electronic signing (which had very low availability at the time of the study) or being present in a police station to confirm the complaint. With the new ID that incorporates a chip with electronic signature, use of the online channel is expected to increase. However, what perhaps needs to be reviewed is the requirement of confirmation in person or electronic signature. In this case, Arlington County, Virginia, in the United States[75] –among many others– can be considered a reference since it offers the possibility of completing the procedure entirely online. Citizens are informed that all complaints or reports are dealt with and that, if necessary, the police will contact the complainant; at the same time, a warning against false complaints is included. Well applied, this method would make the experience for citizens less traumatic, save a significant amount of service hours, improve the quality of the process and information collected, reduce underreporting of complaints, and improve the statistics and analysis of the data.

The practice of registering reports on paper, both inside and outside police stations, is still common

[74] https://denuncia.minterior.gub.uy/
[75] https://police.arlingtonva.us/online-police-reporting-system/

in some countries. This affects the quality of the recorded data and, therefore, the chances of success of further research (several experts noted the critical role played by the quality of the initial information in the resolution of cases). It is also an open door to underreporting. Decisive progress is needed in automating the process both in police stations and through mobile devices.

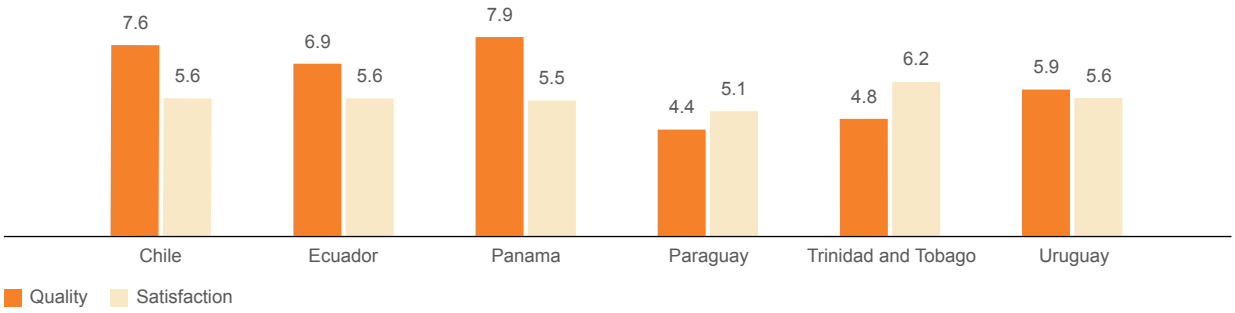
In Ecuador, all recipients of complaints are lawyers. This ensures a higher level of the quality of the collected information, improving the probability that cases are resolved. Ecuador has implemented an online service for consulting the status of a complaint.[76] Proactively keeping citizens informed about the state of their case, either through email or automated calls, contributes significantly to trust in the system.

Registering a birth

Analysis of data:

1. Quality and satisfaction. Figure 27 shows the variation in the region.

Figure 27: Registering a Birth – Quality and Satisfaction



Source: Authors' elaboration.

The figure indicates a high level of homogeneity in satisfaction levels for registering a birth, with a maximum in Trinidad and Tobago. For quality, the high performance of Chile, Ecuador, and Panama is notable.

Table 17: Registering a Birth – Score in the Quality Dimensions of Each Country

Country	Quality index	Process	Resources	IT	Management and regulation	Relations with citizens
Chile	7.6	9.1	5.6	7.6	6.7	9.3
Ecuador	6.9	7.3	6.6	7.5	6.4	6.3
Panama	7.9	7.9	7.4	7.5	10.0	7.9
Paraguay	4.5	3.4	3.4	7.0	4.0	4.0
Trinidad and Tobago	4.8	2.4	4.8	7.0	4.6	6.3
Uruguay	5.9	5.5	3.8	7.6	6.7	6.3
Average	6.3	5.9	5.3	7.4	6.4	6.7

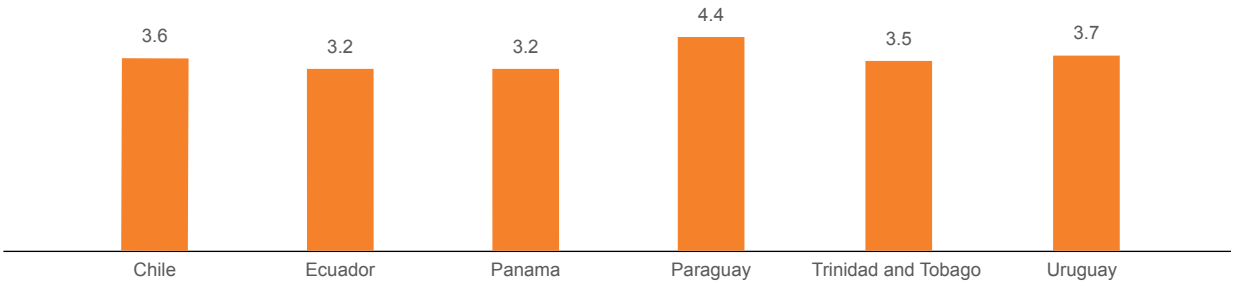
Source: Authors' elaboration.

[76] http://www.gestiondefiscalias.gob.ec/siaf/informacion/web/

The score each country received in each quality dimension is provided in Table 17. The table shows that performance in general is very high, particularly, in terms of IT management.

2. Expectations. Figure 28 shows the variation in the region.

Figure 28: Registering a Birth – Expectations



Source: Authors' elaboration.

The figure indicates that in all countries citizens expected less than they finally received. One possibility is that the registries perform better than the government average but citizens are not aware of this.

3. Importance of attributes. Table 18 shows the three most important attributes of *registering a birth* in each country. Except for the *comfort* attribute in Trinidad and Tobago, in all cases performance was above the country's mean.

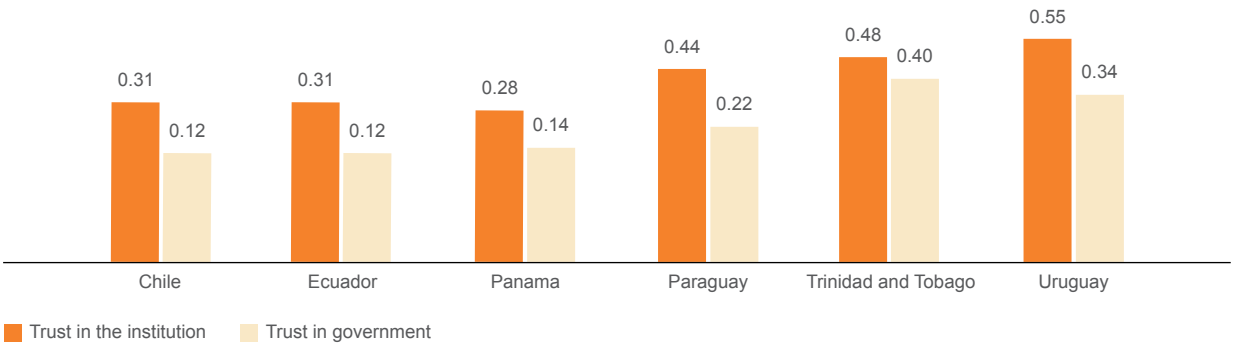
Table 18: Registering a Birth – The Three Most Important Attributes in Each Country

Chile	Ecuador	Panama	Paraguay	Trinidad and Tobago	Uruguay
Processing time	Processing time	Impartiality	Diligence	Processing time	Processing time
Comfort	Impartiality	Courtesy	Processing time	Comfort	Diligence
Courtesy	Empathy	Diligence	Comfort	Usability	Impartiality

Source: Authors' elaboration.

4. Impact of satisfaction on trust in the institution and in government. Figure 29 shows the linear regression coefficients between satisfaction and trust, which indicate the impact on trust derived from a unit change in satisfaction. The figure shows that the coefficients are generally low, with the highest levels in Trinidad and Tobago, and Uruguay.

Figure 29: Registering a Birth – Linear Regression Coefficients between Satisfaction and Trust



Source: Authors' elaboration.

Identified good practices: Chile measures user satisfaction and legally binds the results to the payment of bonuses to officials. This mechanism is believed to stimulate the quality of services.

The low level of effective interoperability (in some cases nonexistent) remains one of the main shortcomings of public administrations in the region. This is reflected in various procedures that citizens have to perform throughout their life, for which, they are constantly asked for documents or data generated and maintained by another public institution. Ecuador's Civil Registry is making significant progress in this respect, by making a catalog of electronic services for consulting their database available to public and private institutions. This avoids the need to channel the requirement to citizens.

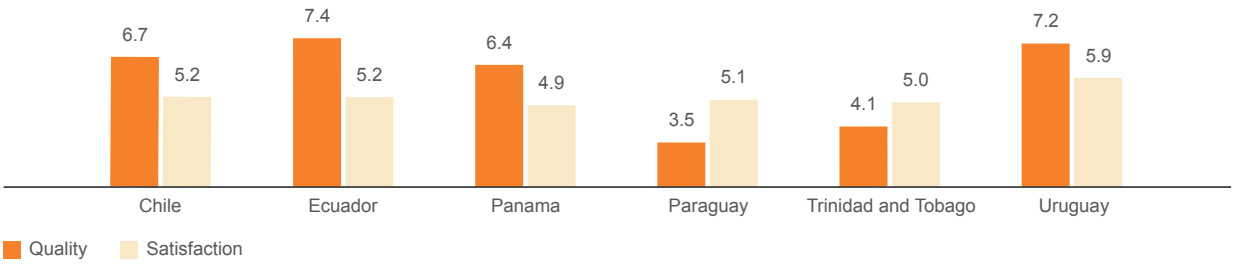
Probably, registries perform better than the government average but citizens are not aware of this.

Registering a child in public school

Analysis of data:

1. Quality and satisfaction. Figure 30 shows the variation in the region.

Figure 30: School Registration – Quality and Satisfaction



Source: Authors' elaboration.

The results indicate a high level of homogeneity in satisfaction levels close to neutral (5.5) and a single case of clearly positive score: Uruguay. In terms of quality, there is great variability, with low levels in Paraguay and Trinidad and Tobago.

Table 19 shows the score for each country in each dimension of quality.[77]

Table 19: School Registration – Score in the Quality Dimensions of Each Country

Country	Quality index	Process	Resources	IT	Management and regulation	Relations with citizens
Chile	6.7	8.4	7.0	3.8	7.9	7.0
Ecuador	7.4	9.8	5.0	7.0	7.6	7.8
Panama	6.4	6.7	7.2	4.8	6.7	7.4
Paraguay	3.6	2.1	3.3	1.8	6.4	7.8
Trinidad and Tobago	4.1	4.3	4.7	1.8	7.3	4.0
Uruguay	7.2	10.0	4.6	6.1	6.1	10.0
Average	5.9	6.9	5.3	4.2	7.0	7.3

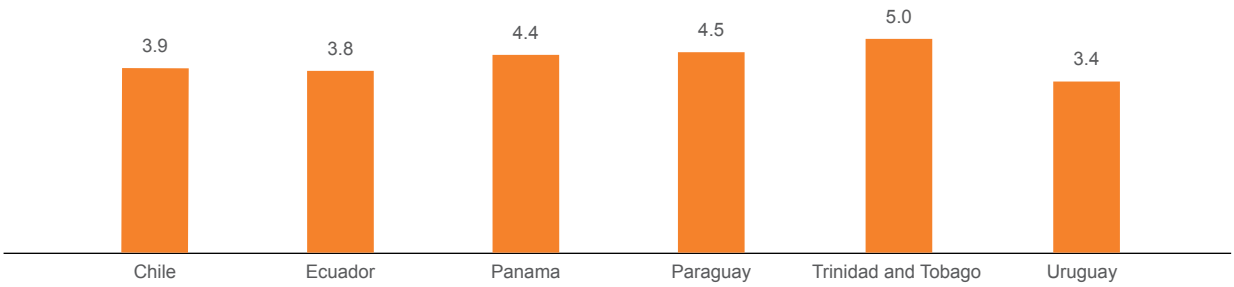
Source: Authors' elaboration.

The table shows generally high performance. The rating for IT management in Paraguay and Trinidad and Tobago is particularly low because those countries do not have a school registration system that is fully automated and unified (and, in general, education system management).

[77] In Chile, the information was obtained from 3 of the over 300 communes that provide this service autonomously, so the result certainly does not represent the reality of many of the others.

2. Expectations. Figure 31 shows the variation in the region.

Figure 31: School Registration – Expectations



Source: Authors' elaboration.

The figure indicates that in all countries citizens' expectations were lower than what they finally received. In some cases, this can be explained by a performance of the service above the government mean, something that citizens had not previously known. In other cases, where the quality of service is undeniably low and where the difficulties that have to be overcome are known, it may be that citizens are mentally prepared for the worst but find a situation that does not reach the extremes imagined.

3. Importance of attributes. Table 20 shows the three most important attributes of this service in each country. Performance is above the country's mean except for two attributes in Panama (*diligence and empathy*) and two in Trinidad and Tobago (*honesty and impartiality*). This is the service where processing time was less important.

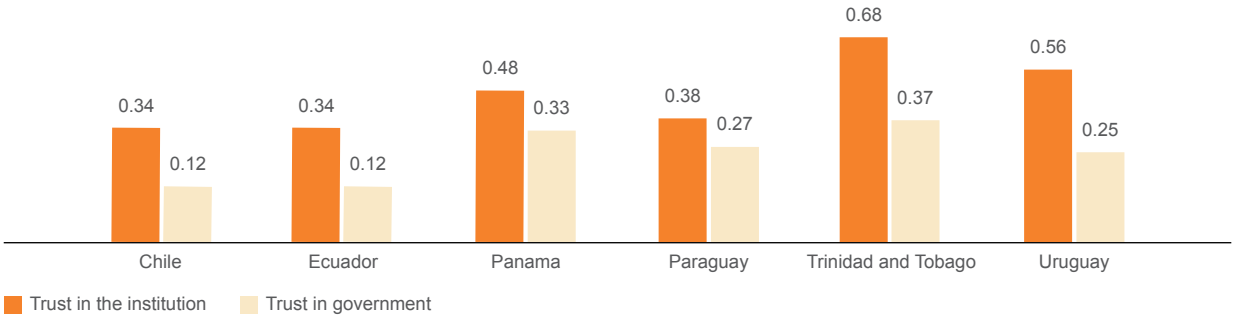
Table 20: School Registration – The Three Most Important Attributes in Each Country

Chile	Ecuador	Panama	Paraguay	Trinidad and Tobago	Uruguay
Processing time	Professionalism	Processing time	Diligence	Honesty	Impartiality
Comfort	Information on procedures	Diligence	Usability	Processing time	Empathy
Diligence	Diligence	Empathy	Comfort	Impartiality	Professionalism

Source: Authors' elaboration.

4. Impact of satisfaction on trust in the institution and in government. Figure 32 shows the linear regression coefficients between satisfaction and trust, which indicate the impact on trust derived from a unit change in satisfaction.

Figure 32: School Registration – Linear Regression Coefficients between Satisfaction and Trust



Source: Authors' elaboration.

The figure shows that the coefficients are generally low, with average levels in terms of trust in the institution in Trinidad and Tobago, and Uruguay.

Identified good practices: There are still some countries where school registration takes place on a first come, first served basis on registration day. This means that parents make a special effort (e.g., lining up early in the morning) and even, in some cases, an attempt to make more than one registration (in case of being unsuccessful in one of them). Aside from these inconveniences, it is a mechanism with risk of lack of transparency; in this respect, countries need to move toward mechanisms with clear rules (based on distance between home and school, attendance of older siblings in the school, etc.) that do not involve waiting in line, much less before dawn. In this respect, Ecuador has automated assignment of children to schools using an algorithm based on geo-referenced information.[78] In addition, a district could be defined for each school, guaranteeing that all children residing there have their place guaranteed. In several cases, registrations are being recorded on paper first and later digitized into a system. In short, it is essential to move toward automating the process.

Uruguay has one of the most highly automated processes. Its information system (known as GURÍ) registers attendance in class in real time and is integrated with the systems of various important institutions. One of them is the National Civil Identification Department (DNIC), which has been issuing the IDs for all newly born children for several years. The DNIC sends the basic data on each child and their parents to GURÍ. These data are used to automatically pre-register the children who enter the compulsory education system each year. As a result, children who have not been registered in the education system are detected and action is triggered to analyze each case together with the Ministry of Social Development. GURÍ also shares information with the Ministry of Health on the status of each child's vaccinations (which are part of the registration requirements).

The move from one year to the next does not take place by default in all countries, so in these cases parents have to re-register their children every year. In this respect, countries have to work to ensure that registration takes place only once at the start and that the move from one year to the next is automatic.

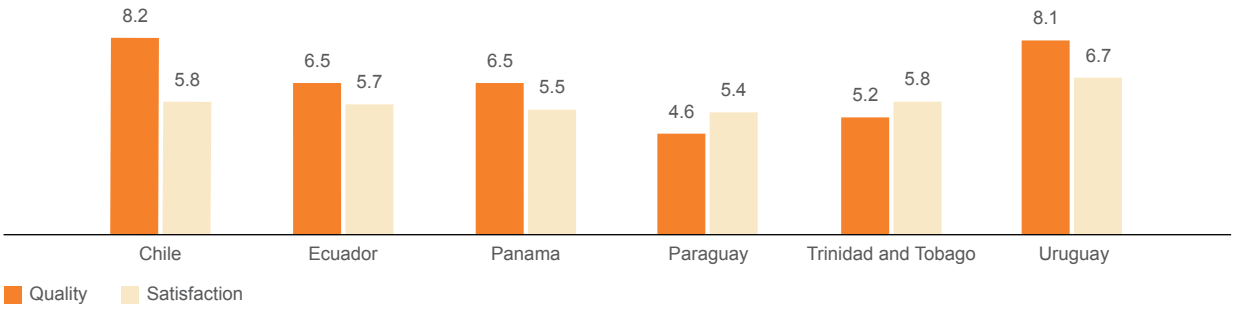
[78] In Chile, the information was obtained from 3 of the over 300 communes that provide this service autonomously, so the result certainly does not represent the reality of many of the others.

Renewal of ID

Analysis of data:

1. Quality and satisfaction. Figure 33 shows the variation in the region.

Figure 33: Renewing an ID – Quality and Satisfaction



Source: Authors' elaboration.

The figure shows a great variability in quality in contrast to a more homogeneous view of satisfaction.

Table 21 provides the score received by each country in each quality dimension

Table 21: Renewing an ID – Score of the Quality Dimensions of Each Country

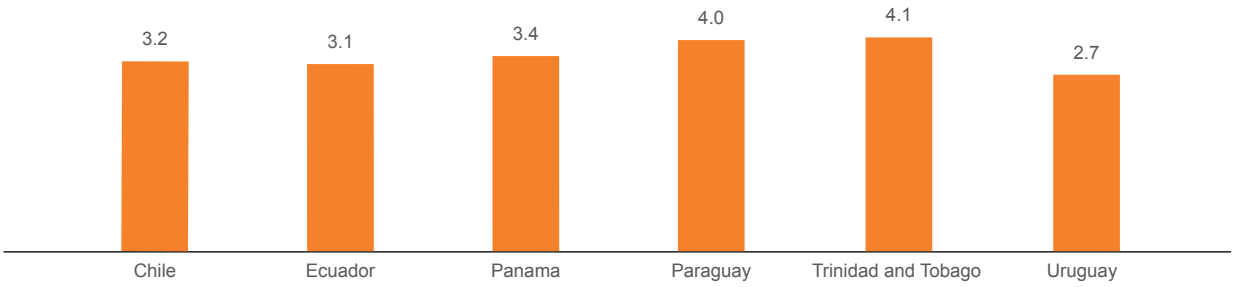
Country	Quality index	Process	Resources	IT	Management and regulation	Relations with citizens
Chile	8.2	7.3	8.3	8.5	7.3	10.0
Ecuador	6.5	6.7	4.4	7.5	8.1	7.0
Panama	6.4	6.7	5.3	4.8	8.7	9.4
Paraguay	4.6	2.1	6.6	4.1	5.8	5.5
Trinidad and Tobago	5.2	4.6	4.1	4.8	5.5	9.4
Uruguay	8.1	8.8	4.7	10.0	9.6	8.5
Average	6.5	6.0	5.6	6.6	7.5	8.3

Source: Authors' elaboration.

In general, the table shows performance between high and very high. This is the only service where the average score is positive for all dimensions (greater than 5.5).

2. Expectations. Figure 34 shows the variation in the region.

Figure 34: Renewing an ID – Expectations



Source: Authors' elaboration.

The figure indicates that in all countries citizens' expectations were lower than what they finally received, in some cases much less. This is probably because the relevant institutions work better on average than government and citizens are not aware of this.

3. Importance of attributes. Table 22 shows the three most important attributes of this service in each country. This is the only case where the performance of the three main attributes was above the country's mean in all countries.

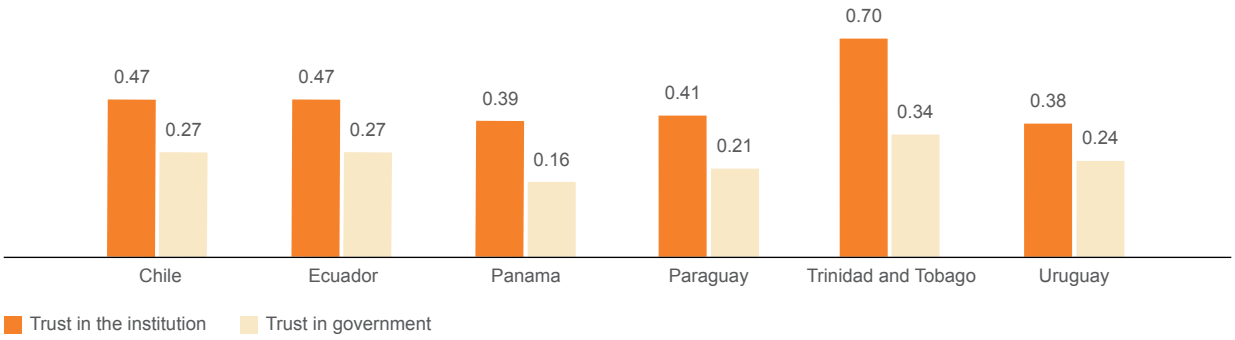
Table 22: Renewing an ID - The Three Most Important Attributes in Each Country

Chile	Ecuador	Panama	Paraguay	Trinidad and Tobago	Uruguay
Processing time	Processing time	Diligence	Processing time	Processing time	Diligence
Comfort	Information procedure	Processing time	Courtesy	Diligence	Processing time
Courtesy	Impartiality	Sense requirements	Diligence	Comfort	Impartiality

Source: Authors' elaboration.

4. Impact of satisfaction on trust in the institution and in government. Figure 35 shows the linear regression coefficients between satisfaction and trust, which indicate the impact on the trust derived from a unit change in satisfaction. The figure shows that the coefficients are generally low, with high trust in the institution in Trinidad and Tobago.

Figure 35: Renewing an ID – Linear Regression Coefficients between Satisfaction and Trust



Source: Authors' elaboration.

Good practices identified: There are basically two modalities for this service. One is implemented by Chile and Uruguay, where a prior appointment is given and all the internal work of data checking takes place before the procedure, which ends with the document being issued (i.e., a single visit). The other is implemented by Panama, Paraguay, and Trinidad and Tobago, where no prior appointment is required, the work of checking is done after registration, and citizens have to attend a second time to collect their document. Ecuador has a mixed system: 80 percent of the population can go without a prior appointment and leave with the document (one visit), while the remaining 20 percent have to return. The first modality requires printing capability in each service office, while the second is based on a centralized card production system. With respect to the second, Panama gives a date for collecting the document and contacts the person if they cannot comply, while Ecuador sends an SMS when the document is ready. From the citizen's point of view, the first modality is preferable.

In Chile, expiration of the ID has a particular characteristic: it is set to coincide with the date of birth in years with multiples of 10 (that is, when the person reaches 30, 40, etc.) In other countries the expiration date depends on the date of the initial application or renewal. Chile measures user satisfaction and legally binds the results to the payment of bonuses of officials. This mechanism is believed to stimulate the quality of services.

In Uruguay, important steps have been taken on aspects of inclusion for this service. For people with hearing disabilities, the service has trained its officials in sign language. For elderly or disabled people, a mobile office has been set up to complete the procedure in the home.

Demographic Results by Country

This section presents the results obtained for the external view from the demographic perspective.

The data collected is used to analyze many of the variables and several demographic cutoffs by service. The section on general results includes an analysis of gender and ethnicity. For the sake of simplicity, only the behavior of the most relevant variable (satisfaction) for each country is presented here, according to three demographic variables (age, socioeconomic level, and geographical distribution). Recall that the demographic description of each respondent was self-defined and optional.

The following notes are relevant:

- In socioeconomic level, the points considered are *medium low* in the *low* cutoff and *medium high* in the *high* cutoff.

- Because of the variety in distribution of populations across the participating countries, the locality cutoffs were defined individually for each country, with a maximum of five segments per country. The segments are disconnected; that is, the segments are indicated only with a lower level (> 20,000, > 50,000, etc.) include all localities that

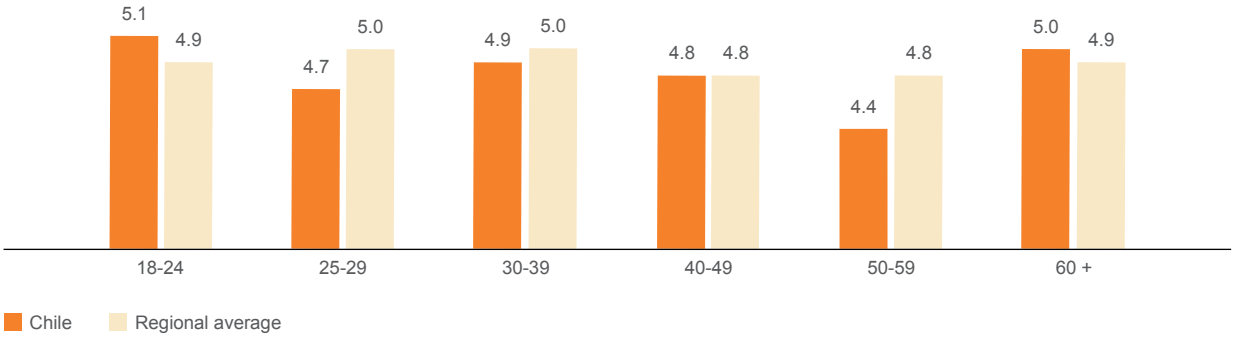
meet that condition, except large cities, which have their own segment.

In the regional average, age variations are moderate. The age group with the highest satisfaction is 25–39, while the 40–59 age group expressed the lowest satisfaction. It is not possible in this study to explain this fact. Moreover, in the socioeconomic levels, the changes are minimal.

With respect to the geographical distribution of satisfaction, the trend in the region is that satisfaction is lower in large cities. Although the possibilities of access to services are certainly higher in cities, it may be that population is more demanding, perhaps because people are better informed about the quality of services in general and, therefore, more aware of what can be required of public services.

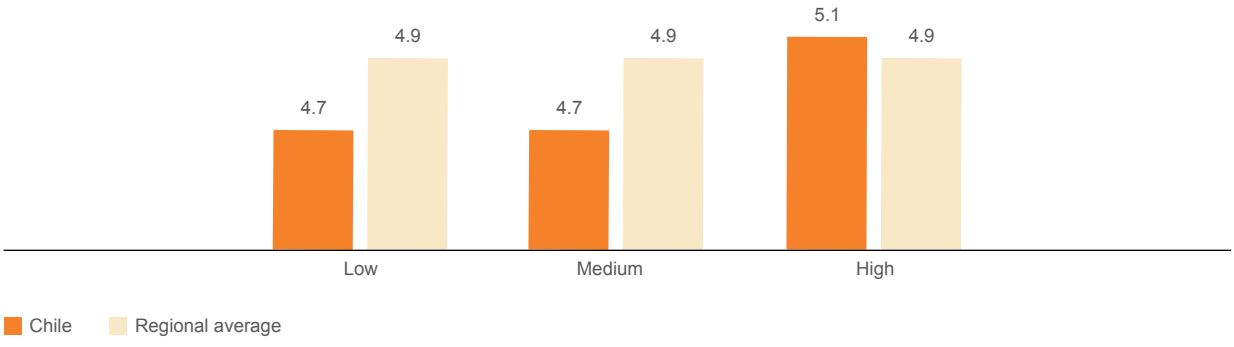
Chile: Figures 36, 37, and 38 show the average trend of the key demographic variables.

Figure 36: Chile – Average Satisfaction by Age Group



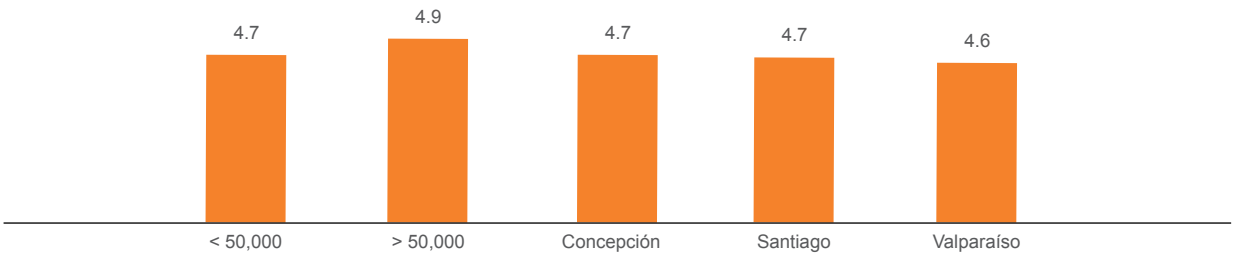
Source: Authors' elaboration.

Figure 37: Chile – Average Satisfaction by Socioeconomic Level



Source: Authors' elaboration.

Figure 38: Chile – Satisfaction by Location



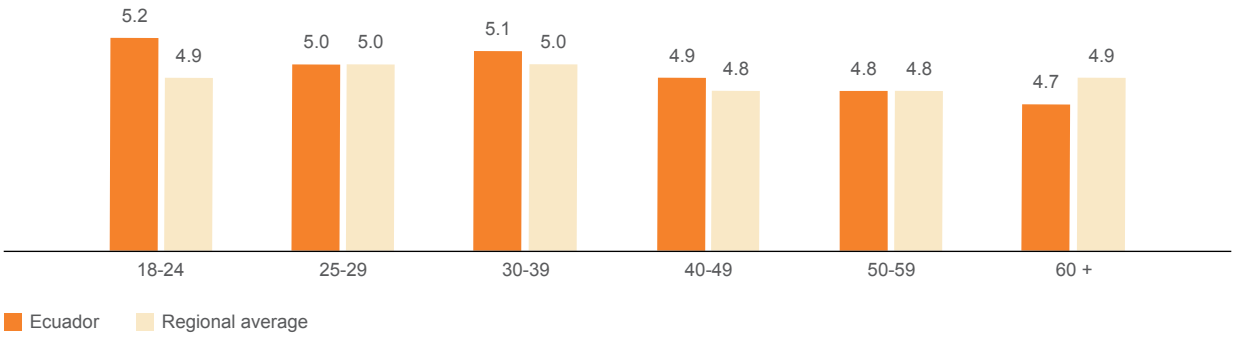
Source: Authors' elaboration.

The figures indicate the following:

- That there is relatively low satisfaction in the 50–59 age group.
- For the other variables, there are no large variations between different segments.

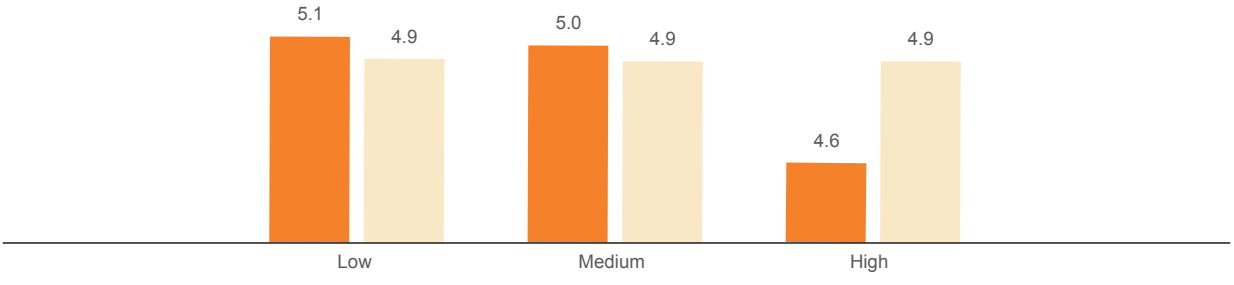
Ecuador: Figures 39, 40, and 41 show the average behavior of the key demographic variables.

Figure 39: Ecuador – Average Satisfaction by Age Group



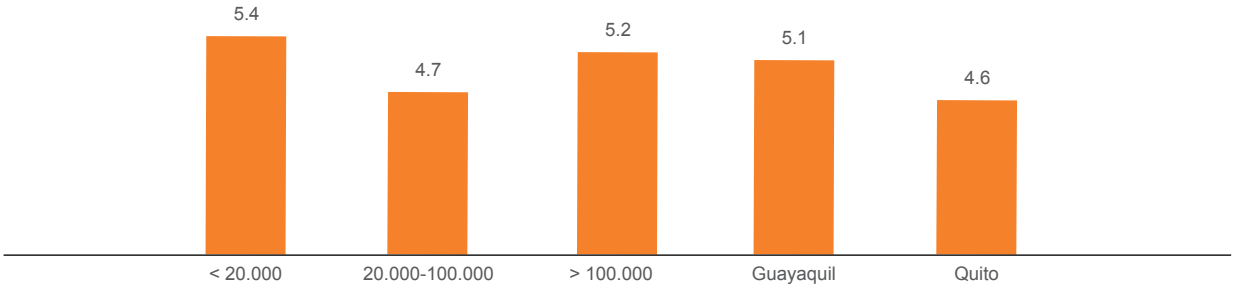
Source: Authors' elaboration.

Figure 40: Ecuador – Average Satisfaction by Socioeconomic Level



Source: Authors' elaboration.

Figure 41: Ecuador – Satisfaction by Location



Source: Authors' elaboration.

The figures show the following:

- The age analysis shows a declining pattern with age, although with minor variations. This type of variation could be due to a digital or information gap, or the fact that the higher quality services in Ecuador have a universe of younger users than the lower quality services.

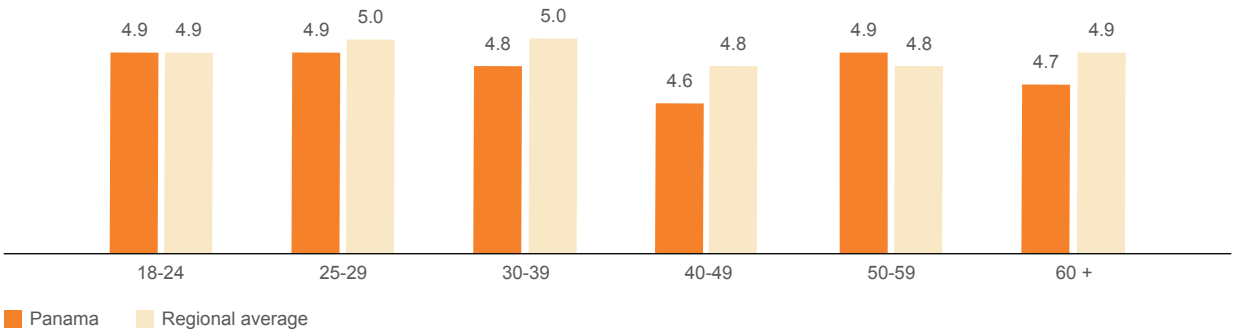
- The location analysis shows the largest difference, with a lower level in Quito. In fact, Ecuador is the country with the largest geographical variation in terms of satisfaction.

Panama: Figures 42, 43, and 44 show the average trend of the key demographic variables.

*

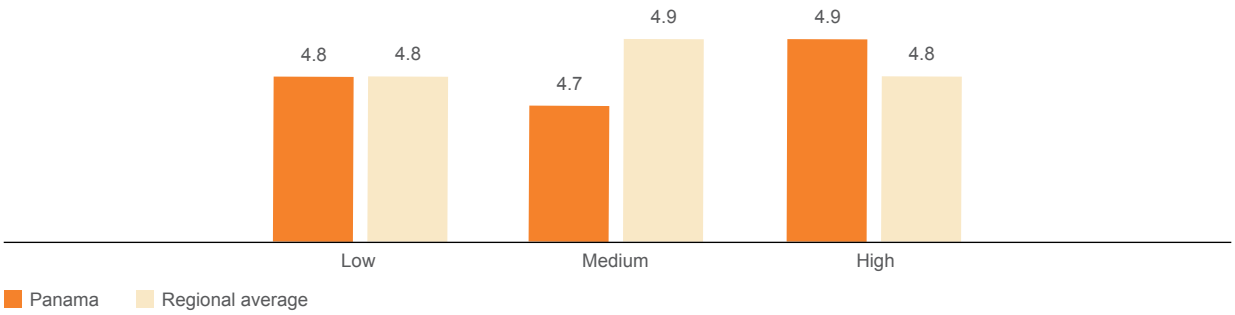
In the regional average, the 25–39 age group is the one showing the highest satisfaction, while the 40–59 group is the one showing the lowest satisfaction.

Figure 42: Panama – Average Satisfaction by Age Group



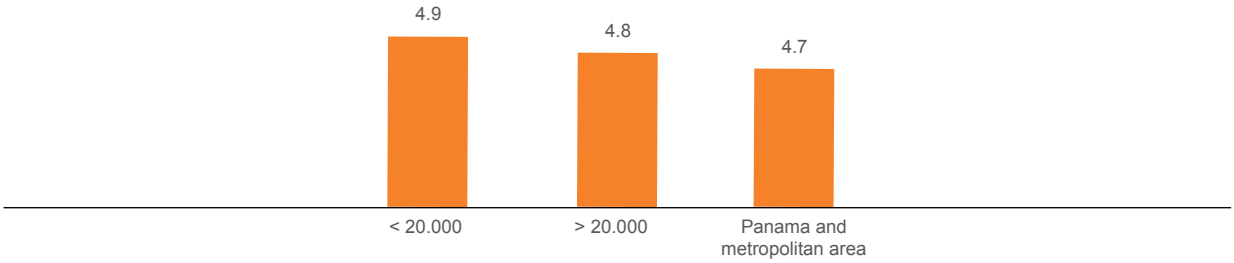
Source: Authors' elaboration.

Figure 43: Panama – Average Satisfaction by Socioeconomic Level



Source: Authors' elaboration.

Figure 44: Panama – Satisfaction by Location

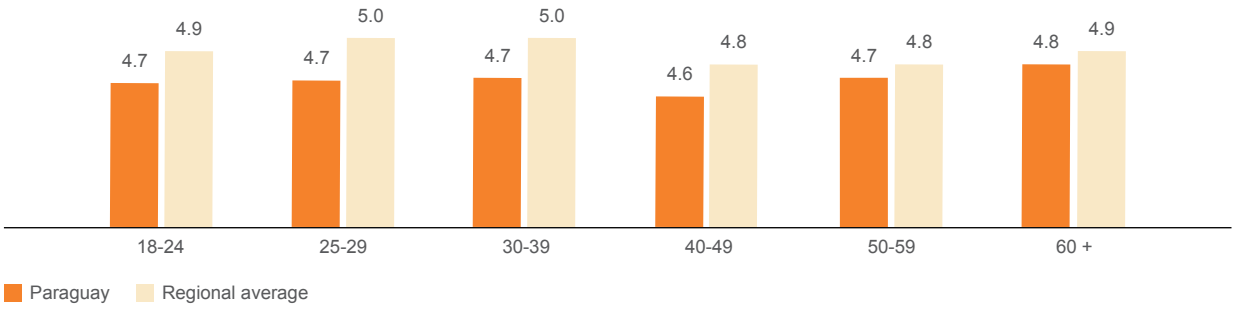


Source: Authors' elaboration.

The figures show that none of the three demographic variables have significant variations.

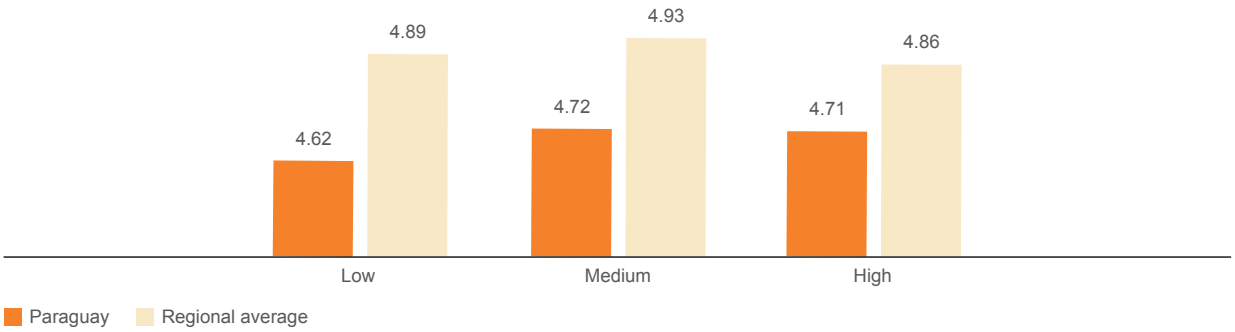
Paraguay: Figures 45, 46, and 47 show the average trend of the key demographic variables.

Figure 45: Paraguay – Average Satisfaction by Age Group



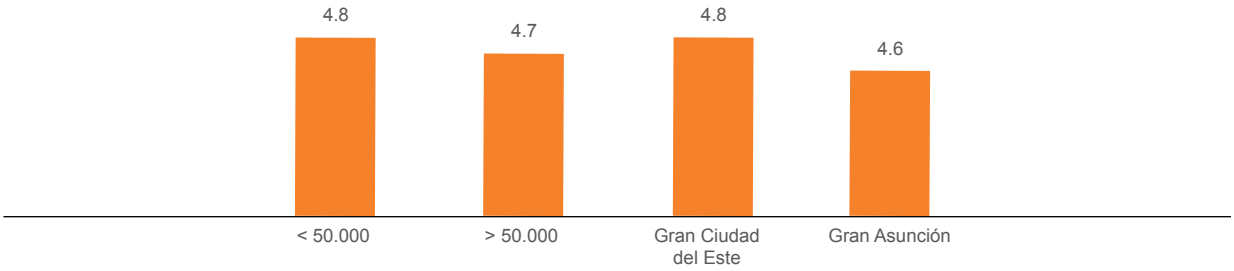
Source: Authors' elaboration.

Figure 46: Paraguay – Average Satisfaction by Socioeconomic Level



Source: Authors' elaboration.

Figure 47: Paraguay – Satisfaction by Location

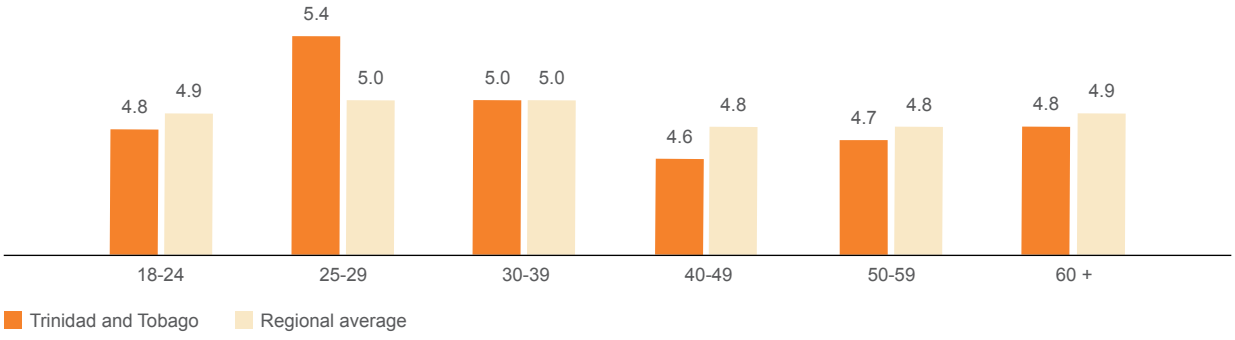


Source: Authors' elaboration.

The figures show that none of the three demographic variables have significant variations.

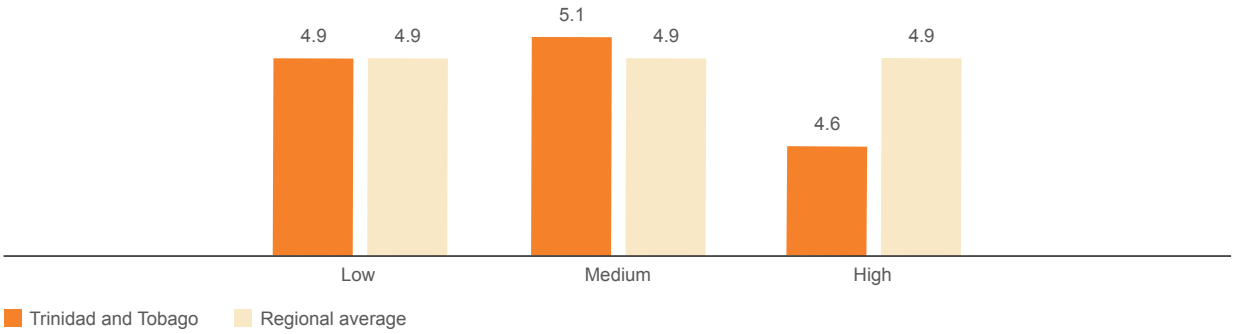
Trinidad and Tobago: Figures 48, 49, and 50 show the average trend of the key demographic variables.

Figure 48: Trinidad and Tobago – Average Satisfaction by Age Group



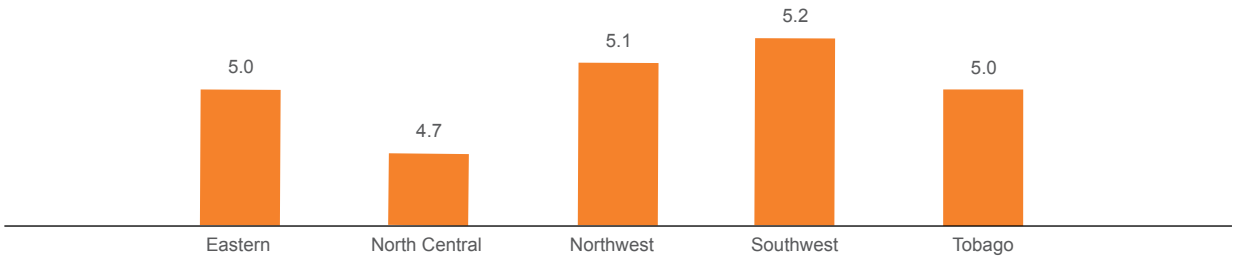
Source: Authors' elaboration.

Figure 49: Trinidad and Tobago – Average Satisfaction by Socioeconomic Level



Source: Authors' elaboration.

Figure 50: Trinidad and Tobago – Satisfaction by Location

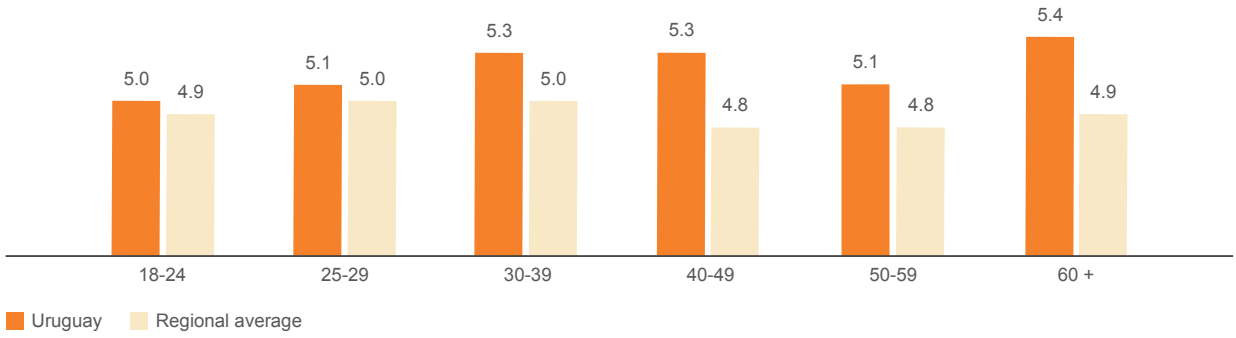


Source: Authors' elaboration.
Note: The North Central region includes Port of Spain.

The figures show generally similar levels in all segments. The only difference that can be mentioned is among age segments, where there is an appreciable difference between the 25–29 and 40–49 segments.

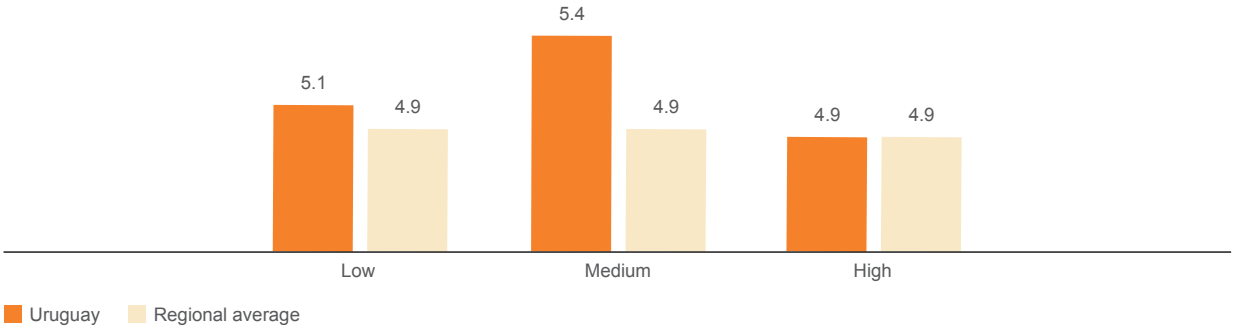
Uruguay: Figures 51, 52, and 53 show the average trend of the key demographic variables.

Figure 51: Uruguay – Average Satisfaction by Age Group



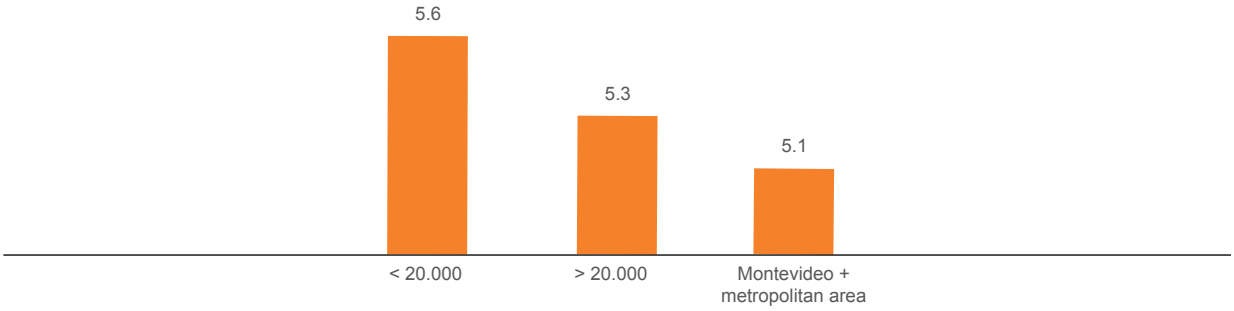
Source: Authors' elaboration.

Figure 52: Uruguay – Average Satisfaction by Socioeconomic Level



Source: Authors' elaboration.

Figure 53: Uruguay – Satisfaction by Location



Source: Authors' elaboration.

The figures show generally similar levels in all segments. In relation to satisfaction by age group, the level of satisfaction follows a rather different pattern from the rest of the region, with better relative performance for the over 40 age group, with the 60+ group being the most satisfied.

3. Conclusions and Policy Recommendations

This chapter presents a synthesis of the project and its findings. As clarified in the *Introduction*, this study does not include concrete action plans or specific recommendations for each country, which are the subject of supporting documents. Most of the recommendations for specific actions are included in the records developed for each of the 36 services analyzed, which were duly sent to the service managers.

The Simplifying Lives project gives, for the first time in LAC, a standardized view of quality and satisfaction levels for transactional public services provided to citizens. This is expected to contribute to moving beyond opinions based on anecdotes and feelings whose general validity is untested, and to begin moving along the path of evaluation based on evidence.

The data collected confirm, at a basic level and on average, that citizens are demanding higher quality services. In this respect, the results obtained are in line with the findings of *Latinobarómetro* and *Doing Business*.

It is expected that the results of the measurement will be used by service managers to take decisions on a range of alternatives for improvement identified in the project. Service managers and policymakers will have to determine whether or not the results are useful for improving management. In other words, if the information contributed by the Simplifying Lives project is actionable, the objective has been achieved.

Strictly speaking, the results apply only to the services analyzed and the countries that participated in the pilot. However, the question arises as to what can be inferred with respect to other services in each country, other countries, and the core service in cases where the procedures analyzed was a gateway to a more extensive service.

Considering the great variety of services and countries analyzed, quality and satisfaction levels outside the set analyzed are expected to be relatively similar. To be certain, however, the measurement needs to be extended to other services and countries.

General Recommendations Based on the Results: The main conclusions and recommendations are as follows:

- The principal mission of governments is to provide quality services to citizens and organizations efficiently and effectively. The three concepts are not entirely independent, and, in some cases, could lead to conflicting objectives.[79] However, studies in LAC have focused almost exclusively on efficiency and effectiveness, and not so much on the quality of the services.

- Several authors point out that quality and satisfaction with public services has an impact on trust in the provider institutions and in government. Therefore, provision of quality services is not only a core mandate but improving trust contributes to reducing the transaction costs involved. The results of Simplifying Lives show, in effect, this positive impact on trust.

- Awareness of the importance of quality and satisfaction implies that a basic aspect of management is promoting quality and satisfaction by means of a clear mandate to a cross-cutting

[79] The guiding idea offered by Ecuador's Minister of Education for prioritizing improvement of the enrollment process was that there cannot be an excellent educational system if the first contact with the system is not excellent.

institution to direct and implement related public policies. The institutional arrangements in each country will determine the most appropriate institution to play this role. Ideally it would be a body that has cross-cutting responsibilities relative to provision of services and sufficient powers for the task.

- The quality policy of the services should take into account the fact that probably there are institutions responsible for some services that do not have the management skills needed to implement the reforms required to guarantee their sustainability. In these cases, the direct participation of the governing institution in the improvement projects could be required, facilitating, above all, shared services, both professional and infrastructure.

- To implement policies of quality and citizen satisfaction it is necessary to take periodic standardized measurements of quality and satisfaction levels, including evaluation of the performance of the factors that determine these two variables.

- When the methodology is standard, the performance of each service can be compared with other services in the country and with equivalent services in other countries. Thus, identifying services whose performance is relatively low and which, consequently, should be given priority in the general modernization plans.

- In all services, but mainly in those assigned as priority in the general plans for strengthening management capabilities, it is essential to identify which aspects citizens value most and which have relatively low performance. Modernization plans should set improvement goals for the corresponding variables, taking as reference, for example, the best in their class in the region or outside it. To set these goals, the Simplifying Lives project provides, among its products, a simulator to estimate the improvements obtained in overall satisfaction in terms of how much the performance of the attributes improves.

- In general, the results indicate that what citizens value most is processing time, followed by performance of public employees mainly in attitudinal but also professional aspects. Comfort of the facilities is in third place. In many cases performance in these attributes is low, which indicates the need to identify improvement projects that contribute above all to reducing processing times and improving the treatment received by citizens.

- The Simplifying Lives project offers clues about what type of projects could contribute to making improvements. Among the various dimensions of quality management, incorporation of IT and adoption of models for management of relations with citizens have been identified as strongly related to citizen satisfaction.

- The incorporation of IT along the entire value chain brings obvious benefits to citizens. Especially because at present the online channel is hardly used for transactions and a significant proportion of citizens would like to be able to use it. The benefits will also become apparent inside the organization, with improvements in efficiency and in quality and control of information management. Which specific IT projects are set in motion depends on each case. And possibly more in-depth studies will be needed, taking into account the need for citizens and the institution itself to recognize the benefits of the changes and effectively adopt new tools.

- As a supplement to technological modernization, projects need to be identified that relate to management of human capital and implementing models for management of relations with citizens. These models should be based on the customer relationship management approach, which aims to achieve a unique view of each citizen, applying intelligence to the information obtained on all interactions in order to better understand each person's needs and implement proactive and individualized treatments. This requires, among other things, a unified management of the service channels. It also means having contact information on each user, something that is essential for improving the measurements of quality and citizen satisfaction and for proactive management.

- Expectations have been low, although with exceptions. When they are high, the institution has to make efforts to improve the quality of its services. In cases where they are low, although this means that citizens had a pleasant surprise, communication plans should be designed and implemented to show that the services are being provided with a higher than expected quality. This

will contribute to a better institutional image and recognition by citizens of the efforts to improve that the institutions have been making.

With these recommendations in mind, each of the countries analyzed in this study will be able to define its own special priorities, identify the type of problem to be solved in each case, and the type of project that needs to be conceived and implemented.

General Recommendations on the Methodology: The objective of defining the methodology and its data collection techniques was to develop an instrument that improves the quality of public services in LAC. This objective will be achieved if the responsible institutions implement improvement programs based on the evidence collected. The methodology is described in this document and any institution or country can apply it in coordination with the IDB or independently. For the proof of concept, a consulting firm was contracted as project manager and to provide expert knowledge for data collection and analysis. However, governments that want to apply their own measurements with this methodology, depending on their capabilities, may do so with or without external support.

The technique used for the external view attempts to cover all national territory and has great advantages in terms of cost–benefit. However, the technique is not applicable in all cases. A service with a low volume of users may not be able to obtain a sufficient number of informants. For such cases, other data collection techniques have to be evaluated to maintain comparability of results.

An important point to note is that citizens' expectations and needs are dynamic (a moving target) and are influenced by all their experiences, not only by their relationships with public institutions. This has two basic consequences: (i) in order to detect changes it is good practice to take periodic measurements and (ii) solutions that may be good today may not be so good tomorrow. Periodic measurement is not only useful for detecting how citizens are changing but also allows each institution to keep track of its evolution. In future implementations the survey could be extended to more countries and more services, thus strengthening the measurements.

It will also be possible to establish stronger relationships between quality and satisfaction and macroeconomic and socio-demographic variables and other performance indicators of the countries. New measurements can be used to determine, for example, if there is any relationship between citizen satisfaction and the investment rate, or if citizen satisfaction is a good predictor of the future performance of the economy. Given that public institutions have relatively high inertia and that measurement requires considerable effort, the frequency should be high. The most appropriate would be an annual or biennial frequency.

It should be noted that the measurement only produces information on the people who have had experience with the service, not on problems of coverage or inclusive aspects of the service. In general, it is not possible to use this technique to determine if there are deficiencies in the service that only affect certain minorities.

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Annex 1: Homogeneous Definition of the Services Analyzed

Table A1.1 shows the following information for each of the procedures measured: (i) proposed scope, (ii) justification of the scope, and (iii) details of the transaction (the events that start and end the procedure).

Table A1.1: Scope, Justification, and Transaction Detail of each Procedure

Procedure	Scope	Justification	Transaction detail
Applying for disability allowance (Option 1)[a]	Pensions or any financial assistance for disabled people, requested by citizens, their families, or caregivers.	• Not all countries have a universal card or certificate of disability. For this reason, only the pension is included, which is a single procedure. • We include family members and caregivers to expand the sample universe. In many cases, family members support disabled people and, therefore, have a broad view of the procedure.	The process begins with a request by the citizen for an appointment to apply for the disability pension or when applying in person at the service office. It ends with notification of the decision on the application.
Applying for a disability card (Option 2)	The procedure for application for evaluation and the corresponding disability card for citizens with a permanent or temporary disability.	By considering permanent and temporary disabilities, the number of users who perform the procedure increased.	The procedure starts when the citizen requests an appointment to obtain the credential (by Internet or phone) or when they go to the service office to make the request. It ends when the document that accredits disability status (permanent or temporary) is received.
Renewing an ID	• Renewal of the ID of citizens in the country, excluding renewals applied for outside the country. • Considered cases of renewal of a document that has expired or is about to expire. • Covers the process of renewal of normal ID, excluding urgent renewals.	• Considered as valid cases for renewal of ID, only documents that have expired or are about to expire, because in some countries renewal for reasons such as correction of information, defect, or name changes follows a different process. • Covers the normal renewal process because some countries have an express procedure for urgent renewals, which differs from the standard or regular process.	The procedure starts when the citizen requests an appointment for renewal or when they visit the service office to make the request. It ends when the ID is received.

(continued on next page)

Table A1.1: Scope, Justification, and Transaction Detail of each Procedure

Procedure	Scope	Justification	Transaction detail
Obtaining a doctor's appointment in the public system	• Obtaining a doctor's appointment, excluding emergencies. • Includes obtaining a doctor's appointment in the public system even if the doctor is not located in a public hospital. • The request for appointment is made directly by the patient, excluding requests by third parties or referrals made directly by another doctor.	• Emergencies that require an appointment are excluded. • Includes appointments with specialists who may be located in private hospitals although they belong to the public system. This reflects the real situation in many countries in the region, where the public health system is supplemented by the private network to cover demand. • Requests made directly by patients themselves are considered valid because in some countries the procedures are different if the request is made by the patient or another person on their behalf. The same applies when the medical request is made by a doctor (referral), since in this procedure the patient does not interact directly with the service.	The procedure starts when the citizen requests a doctor's appointment in the public system by phone or in person at a health center. It ends when the citizen receives confirmation of the requested appointment.
Registering a child in public school	Registering a child in public primary schools. Target age 5–12.	• Excludes approaches to education institutions that are for information and that do not result in registration of the child. • Includes registration of a child in primary school because it is the most common case, has higher demand, and in some countries in LAC secondary education does not require registration if the child is registered in primary in the same jurisdiction, which decreases the number of users per year.	The procedure starts when parents of children aged 5 to 12 contact the school via phone, website, or in person. It ends when the child is registered.
Reporting a theft or larceny (without violence)	Covers the procedure of reports of non-violent theft and larceny (the victim is not injured).	• Evaluates the process of making the report, not the quality of the response to the complaint. • Excludes as offenses bank card fraud, sex crimes, and financial fraud against corporations mainly because the statistics provided by individual countries only refer to non-violent theft and larceny. • Excludes offenses involving drugs because in most cases they involve the specialized agencies.	The procedure starts when the citizen contacts the authority by phone, in person, or through the website. It ends with the start of the investigation.
Registering a birth	The procedure of registration of newborns by one or both parents within the established period (current regulation).	• Excludes the procedure of registration of newborns by third parties (other than parents). Also excludes registration of abandoned children or of unknown mother. This is because in some countries registration of newborns by third parties involves additional requirements, and registration of abandoned children differs from the standard procedure.	The procedure starts when the parent(s) of the newborn contact the agency defined for registration of newborns. It ends when they receive the birth certificate.

Source: Authors' elaboration.
[a] See the corresponding chapter section results for which countries worked with Option 1 and in which with Option 2.

Annex 2: External View Questionnaire

The questionnaire used for the external view is detailed below. The key variables are in the General Questions section, while the drivers of satisfaction are highlighted the Code column.

Table A2.1: External View Questionnaire

Code	Variable	Question/text	Response/ scoring range	Clarifications
General questions				
PG_1	Channel used	Which method did you use for this service last time?	1: Face-to-face 2: Internet 3: Phone	
PG_2	Preferred channel	If you would rather have used another method, which would you use?	1: Face-to-face 2: Internet 3: Phone 4: I had no preference for another modality	
PG_3	Explicit satisfaction	In general, how do you rate your level of satisfaction of the experience you had with the service?	1-10	1: Completely dissatisfied 10: Completely satisfied
PG_4	Expectations[a]	How do you rate the quality of service received?	1-10	1: Much worse than expected 5: More or less what was expected 10: Much better than expected
PG_5	Trust in the institution	The institution providing the service has given me trust.	1-10	1: Strongly disagree 10: Strongly agree
PG_6	Ideal quality	The quality of the service could be improved.	1-10	1: Strongly disagree 10: Strongly agree
PG_7	Value	I believe it is necessary for the government to offer (or require, if applicable) this service.	1-10	1: Strongly disagree 10: Strongly agree
PC_1	Trust in government	The government of my country gives me trust.	1-10	1: Strongly disagree 10: Strongly agree
Specific questions on a procedure				
PE_1	Quality of the product obtained through the service	I believe that the date that I received for the doctor's appointment corresponds to a good quality service.	1-10	1: Strongly disagree 10: Strongly agree Only included for *Obtaining a doctor's appointment*
PE_2	Quality of the product obtained through the service	I believe the authorities gave proper consideration to my complaint and did everything possible to resolve it.	1-10	*1: Strongly disagree* *10: Strongly agree* *Only included for Reporting a theft*

(continued on next page)

Table A2.1: External View Questionnaire

Code	Variable	Question/text	Response/ ccoring range	Clarifications
PE_3	Victimization	Have you ever been the victim of a theft or larceny that has not been reported?	1: Yes 2: No	Only included for *Reporting a theft*
PE_4	N/A	Select the type of public health establishment where you requested the doctor's appointment.	1. Family Health Unit 2. District hospital 3. Regional hospital 4. National hospital 5. General hospital 6. Specialist hospital 7. Institute 8. Other (IPS Central Hospital) 9. Don't know	Only included for *Obtaining a doctor's appointment* in Paraguay
PE_5	Provider[b]	In which institution did the procedure take place?		
PE_6	N/A	Did you complete the procedure after May 20, 2015?	1. Yes 2. No	Only included for *Renewing an ID* in Uruguay
Questions about the process				
PP_1	Processing time	In my opinion, the completion time for the procedure (from the first interaction with the institution to the end of the process) was reasonable.	1-10	1: Strongly disagree 10: Strongly agree
PP_2	Quantification of processing time (value)	Please indicate how long the procedure lasted.		Free number field
PP_3	Quantification of processing time (units)	Indicate whether duration of the procedure was in months, days, hours, or minutes.	1: months 2: days 3: hours 4: minutes	
PP_4	Cost	The process (from the first interaction with the institution until the end of the process) was a significant cost for you.	1-10	1: Strongly disagree 10: Strongly agree
PP_5	Quantification of cost	Please indicate how much the procedure cost you (local currency).		Free number field
PP_6	Travel effort	The process (from the first interaction with the institution until end of the process) involved a considerable effort in terms of travel to the service point.	1-10	1: Strongly disagree 10: Strongly agree
PP_7	Quantification of travel effort	Please indicate the distance you had to travel (in kilometers).		Free number field
PP_9	Reasonableness of requirements	In my opinion, the procedure requires unnecessary information or steps.	1-10	1: Strongly disagree 10: Strongly agree

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Table A2.1: External View Questionnaire

Code	Variable	Question/text	Response/ ccoring range	Clarifications
Questions about the service received				
PS_1	Courtesy	Officials treated me respectfully.	1-10	1: Strongly disagree 10: Strongly agree
PS_2	Professionalism	Officials had sufficient knowledge to process my application.	1-10	1: Strongly disagree 10: Strongly agree
PS_3	Empathy	Officials took into consideration the special aspects of my personal situation.	1-10	1: Strongly disagree 10: Strongly agree 99: Not applicable
PS_4	Diligence	Officials did an efficient job, avoiding unnecessary delays.	1-10	1: Strongly disagree 10: Strongly agree
PS_5	Honesty	I believe the officials acted honestly.	1-10	1: Strongly disagree 10: Strongly agree
PP_8	Impartiality	I received fair treatment during the process.	1-10	1: Strongly disagree 10: Strongly agree
Questions on the facilities where the services are provided				
PU_1	Access to premises	The center where you completed the service has access for disabled people (who require special access alternatives).	1-10	1: Strongly disagree 10: Strongly agree 11: Don't know
PU_2	Usability	Once in the service center the steps I had to follow were simple (it was easy to move around in the facilities and find service points).	1-10	1: Strongly disagree 10: Strongly agree
PU_3	Comfort	The service center was pleasant.	1-10	1: Strongly disagree 10: Strongly agree
Questions on the information supplied by the provider				
PI_1	Navigation	The website is easy to navigate.	1-10	1: Strongly disagree 10: Strongly agree
PI_2	Clarity	I easily understood the information provided and the forms (I did not need help to complete them).	1-10	1: Strongly disagree 10: Strongly agree
PI_3	Information on the procedure	I could easily find and access the information I needed to complete the procedure.	1-10	1: Strongly disagree 10: Strongly agree 99: Not applicable

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Table A2.1: External View Questionnaire

Code	Variable	Question/text	Response/ ccoring range	Clarifications
Open questions				
PA_1	N/A	Do you have any additional comments or suggestions in relation to this procedure?		
PA_2	N/A	Can you tell us what the best aspects of your experience with the procedure were?		
PA_3	N/A	Can you tell us what the worst aspects of your experience with the procedure were?		

Source: Authors' elaboration.
[a] To process the data, this variable was converted into one that had the maximum score with the highest expectation and the minimum score with the minimum expectation: Expectations = 11 - PG_4.
[b] There were four cases in which the procedure could take place in more than one institution: theft report in Chile, Ecuador, and Paraguay, and obtaining a doctor's appointment Panama. In these cases, the informant had to select the institution in which the procedure was performed.

Annex 3: Attributes of Management Quality

The variables that compose the quality index are given in the next table. The number shown next to the name of each variable is its weight in the calculation of the score of the corresponding dimension. Similarly for each dimension, the weight in the calculation of the management quality index is shown.

Table A3.1: Quality Index Variables

Variable[a]	Description	Calculation formula[b]
Process (1/4)		
Waiting time for service (1/5)	Average time from service request until start of service.[c]	Considers the measurements for the service in question in all the countries. 1 point is assigned to the highest and 5 to the lowest. Intermediate values are interpolated linearly. If the same value was given in all countries, 5 points are assigned to all of them. If the process is online, 5 points are assigned.
Processing time (1/5)	Average time from start of service until the end of the process.	Idem "Time to wait".
Response to complaints (1/5)	Percentage of claims settled with respect to all claims received in the year.	0 is assigned to 0 percent and 5 to 100 percent. Intermediate values are interpolated linearly.
Number of steps (1/10)	Number of steps. One step consists of the actions of one official. It can be at the start of the process, between steps performed by other officials, or at the end of the process.	Idem "Time to wait".
Number of personal contacts (1/10)	Number of times a citizen is obliged to attend the service center.[d]	Idem "Time to wait".
Information requirements (1/5)	Number of documents the citizen must submit, including forms to be filled out.	Idem "Time to wait".
Resources (1/4)		
Human resources management (6/15)	Degree of maturity of human resources management.[e]	All scores obtained in the five best practices are added, 5 is then subtracted and the result is divided by 15.
Unit cost of procedure (2/5)	Unit operating cost of delivery of service.	The costs are converted into dollars. If the institution could not provide the data (because costs by activity are not available), a score of 1 was assigned. For the rest, 5 points were assigned to the lowest value, 2 points to the highest, and the intermediate values were interpolated linearly.
Cost of human resources (1/5)	Existence of measurement of the cost of the human resources relative to total expenditure.	Dichotomous variable that takes the value 1 if there is measurement and 0 otherwise.
IT (1/4)		
Procedures performed online (1/3)	Percentage of procedures performed online relative to all procedures performed.	Direct data

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Table A3.1: Quality Index Variables *(continuation)*

Variable[a]	Description	Calculation formula[b]
Level of digitization of procedure (1/3)	Represents the maturity of digitization, meaning the digital functions offered to citizens to perform the procedure.[f]	Direct data (digitization level from 0 to 4)
Quality of information systems (1/6)	Reflects the quality of the systems that support the process based on four characteristics.[g]	All the scores obtained on the four quality parameters of the systems are added, 4 is subtracted and the result is divided by 12.
Interoperability (1/6)	Existence of interconnection with systems of other institutions.	Dichotomous variable that takes the value 1 if there is interoperability with other institutions and 0 if not.
Management and regulation (1/8)		
Transparency (1/5)	Existence of a transparency policy related to the procedure.	Direct data (on a scale 1 to 4)
Regulatory management (1/5)	Existence of a regulatory management framework that includes processes of review of stock and of impact assessment (compliance costs) of new regulations.	Two dichotomous variables are added, one that identifies the existence of regulatory management frameworks and another that identifies the existence of a study of compliance costs for the service in question.
Price of procedure (1/5)	Amount that citizens have to pay to the provider to receive the service.	The costs are converted into dollars. 5 points are assigned to the lowest value and 1 point to the highest. Intermediate values are linearly interpolated. In case of free service 5 points are assigned.
Protection of confidentiality (1/5)	Evaluation of handling of confidential information.	Direct data (scale 1-4)
Strategic plan and quality system (1/5)	Existence of a strategic plan and an implemented quality system.	Two dichotomous variables are added, one that identifies the existence of a strategic plan and one that identifies the existence of an implemented quality system.
Relations with citizens (1/8)		
Dissemination campaigns (1/4)	Existence of proactive communication activities targeted at citizens.	Direct data (scale 1-4)
Measurements of quality and satisfaction (1/4)	Existence of periodic assessments of quality and/or citizen satisfaction.	A score of 1 to 5 is assigned, where 1 means that this type of evaluation does not exist and 5 when a standard methodology is used with resources allocated to the measurement.
Unified management of service channels (1/4)	Evaluates the level of coordination of service channels considering whether the information they provide is the same.	Direct data (scale 1-4)
Access to information (1/4)	Possibility for citizens to follow up the status of their case.	Direct data (scale 1-4)

Source: Authors' elaboration.

[a] In cases where the responsible institution did not have the data for a specific indicator of the service in question, the data corresponding to all the institution was requested. For example, if there is no complaint rate for the specific service, the complaint rate for the entire institution is used.

[b] To compose the variables in a dimension index, in cases where the variable does not yield values within the range [0,1], a rescaling also has to be applied.

[c] For the in-person mode, waiting time starts from the moment the citizen arrives at the facility and ends when the service starts (the intermediate step at a desk for reporting and delivery of numbers is not considered to be the start of the service). In the telephone mode, waiting time is the time between the start of the call and the response by the official (if the service is provided by an interactive voice response, the start is considered to be immediate). In cases where the process includes a prior appointment, the time taken to obtain the appointment is measured.

[d] If in some offices, more interactions are required than others; the worst case is taken.

[e] For this indicator, service managers should indicate the degree of maturity of the service and the institution (on a scale of 1 to 4), with respect to five good management practices: (i) promotion of a culture of knowledge transfer; (Ii) training of staff in charge of providing services to users; (Iii) periodic evaluation of staff satisfaction; Iv) selection of personnel responsible for serving users through competitive processes, and v) existence of incentives for the provision of high-quality services.

[f] Five levels of digitization are considered: i) level 0, no functionality associated with the process is online (even information about the process is provided only in person); Ii) level 1, the information on the procedure is online but not other functionalities; Iii) level 2, in addition to the information, it is possible to download forms associated with the process; Iv) level 3, it is possible to authenticate and fill out forms online, and v) level 4, it is possible to process the process 100% online, including payments.

[g] Four characteristics of the quality of an information system were evaluated on a scale of 1 to 4. The characteristics considered are: i) degree of availability (time that the system is available versus the total working time); (Ii) degree of utility for officials; Iii) degree of reliability of the information provided by the system, and iv) degree of coverage of the operation (percentage of the process covered by the system).

Annex 4: Technical Details

The external view involved an online survey and a face-to-face triangulation survey reduced to three services in a country. The following sections contain a technical description of the studies corresponding to the external view. This annex concludes with a section of observations, which includes an analysis of the results.

Online survey: The external information was collected by a self-administered online survey. Invitations to participate were sent through the Facebook social network. During execution of fieldwork, progress was monitored daily, controlling the quality of the process based on the following criteria:

- Completeness: Incomplete surveys were rejected.
- Uniqueness of informants: The IP addresses of informants were controlled for uniqueness.
- Location: IP addresses were controlled for correspondence to the country whose services were being evaluated.

Collection was divided into two stages:

- A pre-test to identify possible improvements to the questionnaire and validate its programming. It was agreed that, if the adjustments to the questionnaire were low impact, the data would be accepted as part of the study.
- The test, which is the survey itself.

Pre-test: The pre-test was performed between June 10 and 21, 2015. Table A4.1 gives the breakdown by country.

Table A4.1: Pre-test Calendar

Country	Jun 10	Jun 11	Jun 12	Jun 13	Jun 14	Jun 15	Jun 16	Jun 20	Jun 21
Chile									
Ecuador									
Panama									
Paraguay									
Trinidad and Tobago									
Uruguay									

Source: Authors' elaboration.

Test: The test was conducted between July 8 and September 11, 2015. The start was relatively simultaneous in all countries, while termination depended on the rate of valid questionnaires obtained. Table A4.2 shows the breakdown by country.

Table A4.2: Test Calendar

Country	July 6	July 13	July 20	July 27	Aug 3	Aug 10	17 Aug	24 Aug	31 Aug	Sep 7
Chile										
Ecuador										
Panama										
Paraguay										
Trinidad and Tobago										
Uruguay										

Source: Authors' elaboration.

Table A4.3 shows the total surveys collected for each country and service.

Table A4.3: Total Surveys Collected

Service	Chile	Ecuador	Panama	Paraguay	Trinidad and Tobago	Uruguay	Total
Disability allowance	155	126	74	32	42	220	649
Obtaining a doctor's appointment	499	617	467	420	198	403	2,604
Reporting a theft	403	404	400	405	87	413	2,112
Registering a birth	401	410	400	400	200	403	2,214
School registration	483	413	401	400	202	401	2,300
Renewing an ID	435	442	405	406	200	423	2,311
Total by country	2,376	2,412	2,147	2,063	929	2,263	12,190

Source: Authors' elaboration.

The 12,190 surveys were obtained after 526,073 landings (that is, access to the survey site after the person clicked on the invitation received in Facebook).

After consolidation of the data, some additional quality criteria were applied to determine the final set of valid surveys:

- Response time: The start and end times of each survey were analyzed in order to discard those completed in less than five minutes or more than two hours (if they exceed 5 percent of the surveys).
- Standard deviation intra-questionnaire: Surveys in which citizens gave the same response to all the questions associated with attributes were discarded.
- Demographic distribution: For the services and countries with oversampling, surveys were randomly selected but so as to achieve the best distribution according to the minimums established for demographic variables: gender, age, and region.

Table A4.4 shows the set of valid surveys after application of these filters.

Table A4.4: Total Valid Surveys

Service	Chile	Ecuador	Panama	Paraguay	Trinidad and Tobago	Uruguay	Total
Disability allowance	155	122	73	31	41	219	641
Obtaining a doctor's appointment	400	400	400	400	198	398	2,196
Reporting a theft	400	400	399	400	87	400	2,086
Registering a birth	399	400	392	399	200	400	2,190
School registration	400	400	397	399	200	396	2,192
Renewing an ID	400	400	400	400	199	400	2,199
Total by country	2,154	2,122	2,061	2,029	925	2,213	11,504

Source: Authors' elaboration.

In order to provide a point of comparison for the online technique through Facebook, an independent face-to-face survey was conducted in Paraguay.

The target for each service was 400 informants, except for Trinidad and Tobago for which, since its population is relatively small, the target was 200. As can be seen, in the case of *disability allowance* the target was not reached in any country, although the level of compliance showed important variations: from 55 percent in Uruguay to 8 percent in Paraguay.[80] The other case in which the target was not reached was *reporting a theft* for Trinidad and Tobago, where the figure was only 44 percent.

During the fieldwork stage, several actions were taken to increase the volume of responses for these cases: posters were printed with an invitation to take part in the survey and displayed by participating institutions; notices were designed and placed on the websites of the institutions; the closing date for the survey was extended; the number of invitations through Facebook was increased; and in some cases invitations were sent by email. Despite these efforts, the results did not improve significantly.

Sampling error: The sampling error was calculated assuming the infinite populations hypothesis, considering a very large number of users for each service. The values for each service are provided in Table A4.5.

[80] The only case where the number of informants was totally insufficient was disability allowance in Paraguay. An explanation of this case is presented above in the section on this service.

Table A4.5: Sampling Error by Service

Service	Chile	Ecuador	Panama	Paraguay	Trinidad and Tobago	Uruguay
Disability allowance	7.9%	8.9%	11.5%	17.6%	15.3%	6.6%
Obtaining a doctor's appointment	4.9%	4.9%	4.9%	4.9%	7.0%	4.9%
Reporting a theft	4.9%	4.9%	4.9%	4.9%	10.5%	4.9%
Registering a birth	4.9%	4.9%	4.9%	4.9%	6.9%	4.9%
School registration	4.9%	4.9%	4.9%	4.9%	6.9%	4.9%
Renewing an ID	4.9%	4.9%	4.9%	4.9%	6.9%	4.9%

Source: Authors' elaboration.

For *disability allowance*, the table shows that three countries have an error greater than 10 percent (Panama, Paraguay, and Trinidad and Tobago); the same is true, to a lesser extent, for *reporting a theft* in Trinidad and Tobago. The conclusions in these cases have to be interpreted more as a trend than as a final result, taking into account the sampling error exceeding the parameters set for the study (sampling error less than 10 percent). The sampling error per country is provided in Table A4.6.

Table A4.6: Sampling Error by Country

Country	
Chile	2.1%
Ecuador	2.1%
Panama	2.2%
Paraguay	2.2%
Trinidad and Tobago	3.2%
Uruguay	2.1%

Source: Authors' elaboration.

Sample composition: The demographic composition of the sample is given in Table A4.7 according to the identification provided by the informants.

Table A4.7: Demographic Composition of the Online Survey (%)

	Chile	Ecuador	Panama	Paraguay	Trinidad and Tobago	Uruguay	**Overall total**
Survey distribution by **gender**							
Man	27%	50%	33%	38%	22%	22%	**33%**
Woman	73%	50%	67%	62%	78%	78%	**67%**
Survey distribution by **age group**							
18-24	13%	25%	14%	24%	6%	10%	**16%**
25-29	13%	17%	19%	20%	23%	12%	**16%**
30-39	32%	28%	31%	30%	38%	37%	**32%**
40-49	18%	16%	18%	15%	17%	17%	**17%**
50-59	13%	9%	9%	6%	9%	12%	**10%**
60 +	12%	6%	9%	5%	7%	12%	**9%**
Surveys distribution by **channel used**							
Internet	0%	3%	2%	0%	0%	1%	**1%**
Face-to-face	95%	78%	86%	100%	96%	97%	**92%**
Telephone	5%	19%	12%	0%	4%	3%	**7%**
Survey distribution by **rural/urban area**							
Don't know	3%	4%	6%	3%	13%	3%	**5%**
Rural	8%	16%	15%	5%	19%	6%	**11%**
Urban	89%	80%	80%	91%	67%	90%	**85%**
Survey distribution by **socioeconomic level**							
Low	15%	15%	12%	8%	8%	10%	**12%**
Medium Low	37%	38%	32%	30%	26%	38%	**34%**
Medium	38%	39%	40%	47%	40%	43%	**41%**
Medium High	6%	3%	7%	6%	8%	4%	**5%**
High	1%	0%	1%	0%	0%	0%	**0%**
No response	3%	4%	6%	7%	16%	3%	**6%**
Don't know	1%	1%	2%	1%	3%	1%	**2%**

Source: Authors' elaboration.

Triangulation survey: To provide a point of comparison for the online technique through Facebook, a face-to-face survey was conducted in Paraguay (one of the countries with the lowest Internet penetration), completely independent of the online survey. Three services were analyzed: *obtaining a doctor's appointment, school registration, and renewing an ID*. Strictly speaking, the comparison cannot be extrapolated to other services or other countries and is for use only as a reference or indication of what could happen in non-triangulated cases.

The interviews were face-to-face, both in homes and at exits from health care centers and schools. The surveys conducted in homes were 94 percent *obtaining a doctor's appointment*, 89 percent *school registration*, and 100 percent *renewing an ID*. The sampling was probabilistic for homes and selection of interviewees in homes was by quotas for gender and age. In health services and schools, systematic sampling was applied, with quotas for gender and age.

The fieldwork took place between October 5 and November 8, 2015: 422 people were interviewed for *obtaining a doctor's appointment*, 412 for *school registration*, and for 414 for *renewing an ID*. The estimated sampling error is 2.77 percent. Table A4.8 shows the demographic composition of the sample.

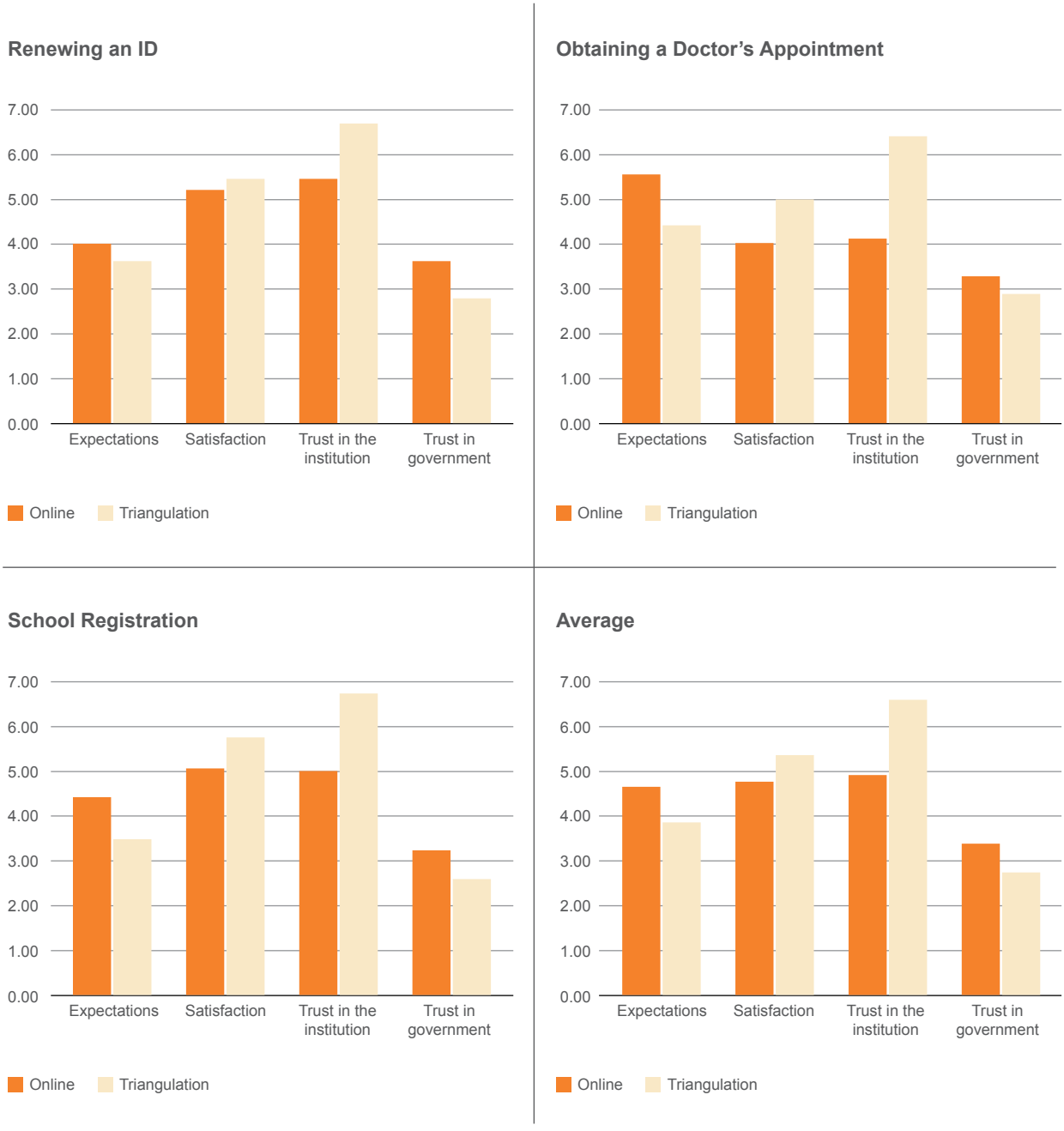
Table A4.8: Demographic Composition of the Triangulation Survey (%)

Gender	
Man	47%
Woman	53%
Age	
18–24	19%
25–29	14%
30–39	24%
40–49	17%
50–59	13%
60+	4%
Rural/urban area	
Rural	25%
Urban	75%

Source: Authors' elaboration.

Figure A4.1 provides a comparison of the result of the two surveys for the main variables.

Figure A4.1: Comparison of Results of Online Surveys and of Triangulation for the Key Variables



Source: Authors' elaboration.

The figure shows that the results are similar although with notable differences:

- Average satisfaction has an 11 percent difference; expectation 20 percent; trust in the institution 30 percent; and trust in government 20 percent.

- Expectations and trust in government produced higher values in the online survey; in contrast, satisfaction and trust in the institution had lower values.

Analysis by service indicates that the differences are minimal for *renewing an ID*, while they are more pronounced for *school registration*, and even more for *obtaining a doctor's appointment*. Were it not for the differences in the *trust in the institution* variable, we would have smaller differences for all services.

Observations and lessons learned: The online and triangulation surveys produced relatively similar results. For some variables, the results practically coincide, while for others, there are appreciable differences. There are also variations depending on the service. It is not possible to determine with minimum certainty the origin of these differences, although they definitely do not arise from differences in the demographic composition of the respective samples.[81]

It is possible that the difference may derive not so much from the digital divide (Internet penetration and usage) but from differing capacities for answering self-administered surveys. This capacity varies according to the education level of the informants, which in turn varies inside a country and, on average, between countries.

The number of potential informants is critical to the success of the measurement (it is hard to find informants on Facebook for services with few users). This implies that the technique can be applied in all cases, but to obtain reliable results the number of potential informants needs to exceed a certain minimum (so that the population behaves as an infinite population). This was particularly true in the measurement of the *disability allowance* service. Due to the low number of users, a great effort was needed to get responses and, despite the efforts, the original targets were not reached. It was even necessary to discard one of the measurements and, for the other five, the sampling errors were increased. In cases like this, in the future, an analysis will be needed to see if other data collection alternatives would be more convenient.

In the future, Internet penetration will increase and with it the number of potential informants for online surveys. Thus, it is expected that the quality of measurements made with this technique will tend to equate with traditional techniques. If in addition there is a significant cost difference between one or another technique (three to one), the conclusion is that the online technique is not only acceptable but the only one that permits periodic measurements.

According to the Simplifying Lives project methodology, calculation of satisfaction is based on two questions: (i) the explicit satisfaction level expressed by informants and (ii) the distance of the experience from what respondents understand as an ideal service. Cases were detected that indicate a possible misunderstanding of the second question; however, there were only a few cases and there was no impact on the overall conclusions. As lesson learned, the desirability of reformulating this question in future editions should be analyzed.

Moreover, cases were detected that indicate a possible misunderstanding of the question that measured satisfaction with cost. Considering that five of the six analyzed services are free and that, as a result, citizens assigned very low importance to this variable, it was determined that the possible errors have no appreciable impact on the results. As a lesson learned, the desirability of reformulating this question in future editions should be analyzed.

Simple averages were used for country and regional averages by service. In the absence of external data for *disability allowance* in Paraguay, it was excluded from the averages involving the service and country (the averages for Paraguay

[81] Corrections can be made to the online survey giving more weight to the underrepresented segments, confirming that the variations are minimal.

do not include this service and the averages for *disability allowance* do not include Paraguay). The same goes for quality averages involving disability allowance in Uruguay.

In the case of services where the country has more than one provider institution, the quality of the most important or of a representative was analyzed. This situation occurred in Chile for *school registration* and *reporting a theft* (it was not possible to obtain information from the main institution Carabineros), in Panama for *reporting a theft*, and in Trinidad and Tobago for *obtaining a doctor's appointment* and *reporting a theft*.

With respect to the difference between the general demographic composition of each country and the demographic composition of the samples, the question is if a correction factor should be applied. As noted above, the problem is that, despite attempts, it was not possible to know the demographic profile of the users of each service. Faced with this difficulty it was decided to apply for all services the single criterion of not adjusting the demographic composition of the samples to the general demographics of the country, although minimum quotas were applied to each of the age, gender, rural or urban, and socioeconomic level.

In addition to the questions where the need for adjustment was already identified, the entire questionnaire will have to be reviewed to identify improvements in wording and to replace questions that have proved to be irrelevant with others of more interest.

The offer of an incentive to strengthen the response rate caused surprise in some cases, since some citizens felt that a survey of this type should not include the offer of a draw. While the issue should be handled with care, without this incentive it would be difficult to reach the response targets prescribed by the methodology.

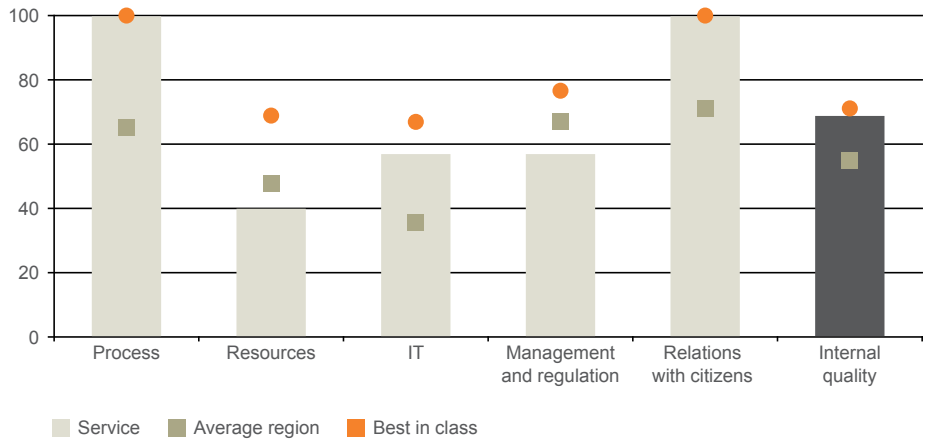
Annex 5: Example of Summary Record for a Service

A summary record for one of the six services studied is shown below. The respective managers validated the records.

Box A5.1: Summary Record of One of the Six Services Studied

Uruguay	
Registration in public school	
Internal view	
Context: The Council of Preschool and Primary Education, under the National Public Education Administration (ANEP), is the body responsible for the procedure of registering a child in a public school in Uruguay. Public schools account for 80 percent of students. The centralized service is backed by a computerized system with national coverage, which consolidates all information through sixth grade for urban schools and ninth grade for rural schools. Parents must apply for registration in person, indicating a preferred school and two alternatives. ANEP assigns the school based on availability and other criteria. Scope: Registration of children aged 5 to 12 in public primary schools. The procedure starts when the parents go to the school and ends when the child has been registered (applies to preschool years and first year of primary).	
Quantitative analysis	
Number of transactions in the last year: 38.000 Number of staff assigned to the service[a]: 2.000 Number of complaints[b]:200 Main provision channel: In person (100%)	Number of steps in procedure: 2 Number of information requirements: 1 Number of interactions in person: 1 Processing time: Not determined Cost to the citizen: No cost

Figure A5.1: Internal Quality



(continued on next page)

Box A5.1: Summary Record of One of the Six Services Studied

Qualitative analysis

- **Process:** The registration process takes four weeks. Parents are invited to select their preferred school and two alternatives in case the first option is not available. ANEP then implements internal controls to validate the recorded information and the children are assigned to the schools. Finally, the school principal forms groups, under certain criteria, such as gender equity.
- **Human resources:** The administrative staff dealing with users was selected by a competitive process. They have a high workload during the registration period and have received specific training for the function performed, with special emphasis on the information systems that support the procedure.
- **Information technology:** GURÍ is a web information system with an updated database of all teachers, schools, and students. It is used to issue registrations and passes, as well as to control attendance, record grades, store information on the health of the children, etc. It can be accessed in real time through a control panel with consolidated information from the system. The system is formed by the Integrated Social Assistance System of the MIDES for sharing information on children receiving social assistance, along with the Civil Identification (DNIC) system. Through this integration, ANEP receives, prior to the registration period, a database with the children who are entitled to register. On this basis, the registration forms are pre-completed, speeding up the process. This is possible because all children are registered in the DNIC from birth.
- **Relations with citizens:** The registration service has a mechanism through which parents/guardians can consult the result of the procedure. Parents and guardians are dealt with by administrative staff at each school (teachers do not participate in the registration process). The grades are delivered to parents in person annually on paper. The service does not measure user satisfaction with respect to this particular procedure.
- **Management and regulation:** The current regulation is considered clear and concise in terms of the registration process. However, no periodic reviews are conducted and compliance costs for citizens are not analyzed. Although ANEP is committed to assigning schools to all students, other commitments to citizens are not explicit, such as response times for complaints. With respect to management, no continuous improvement process is followed.
- **Special features of the service:** Children are required to have an identification document and up-to-date vaccinations so that ANEP can inform the Ministry of Health about each child's vaccination status. For the registration process, parents receive a QR code that they can use to consult the school where their child was finally registered. It should be noted that there is a Uruguayan school (Solar Artigas School) in Paraguay (Asuncion) managed from Montevideo with Uruguayan teachers and resources.

External view

Quantitative analysis

Sample size: 396 surveys.

Figure A5.2: Importance of Attributes

Attribute	Rank	Level of importance	Process	Service	Facilities	Information
Important or high impact						
Impartiality	1	100	✓			
Empathy	2	90		✓		
Professionalism	3	73		✓		
Reasonableness of requirements	4	59	✓			
Information on the procedure	5	54				✓
Diligence	6	54		✓		
Processing time	7	54	✓			
Honesty	8	53		✓		
Comfort	9	45			✓	
Courtesy	10	43		✓		
Low or null impact						
Usability	11	24			✓	
Access to premises	12	12			✓	
Travel effort	13	12	✓			
Cost	14	4	✓			
Clarity	15	3				✓

The analysis of importance reveals that the most important attribute for evaluating citizen satisfaction is the *impartiality* of the process. This is because the current process guarantees registration of all students who apply for a place in the education system. In terms of importance, the next attributes are *empathy* and *professionalism*, both directly related to the officer providing the service.

(continúa en la página siguiente)

Box A5.1: Summary Record of One of the Six Services Studied

Figure A5.3: Importance of Attributes and Performance[a]

Source: Authors' elaboration.

For this service, citizens have a good level of satisfaction for all the important attributes, meaning the satisfaction level for the attributes is above average at the country level.

It is noteworthy that no attributes are left in Quadrant 1. This indicates that the efforts of the service need to focus on monitoring performance of the attributes in Quadrant 2 to maintain and eventually improve the level of satisfaction perceived by users.

Qualitative analysis (open questions)

The best evaluated aspects for the citizens surveyed includes *rapidity* of the service, along with emphasis on the quality and type of *service* received, which was described as *respectful*, *professional*, and *cordial*. Likewise, the *simplicity* of the process was rated positively and participation in person by school *principals* was also mentioned.

Figure A5.4: Most Positive Aspects of the Experience

(continued on next page)

Box A5.1: Summary Record of One of the Six Services Studied

Among the worst aspects rated by citizens is the *time* they must invest in the registration process, especially since they must leave their workplaces. Citizens also reported the *costs* associated with travel to the education establishment as a problem, especially in rural areas, and the obligation to submit information considered *unnecessary* for the registration process, such as the child's health card and up-to-date vaccinations.

Figure A5.4: Most Negative Aspects of the Experience

Key conclusions

The improvements implemented in the registration process have significantly increased its transparency, going from a procedure by order of arrival, where even the waiting numbers were for sale, to a completely unbiased process.

GURÍ, which is a unified system for managing all school information, is a very sound, complete, and useful tool. It displays in real time which children are present in which classes. It is interconnected with all the systems of the other required institutions and even has better information on the health of children than other bodies. In addition, its implementation has led to a reduction of the time spent on administrative tasks, allowing both teachers and administrative staff to devote more time to teaching activities.

Areas of improvement:

- ANEP is working to implement online registration, which will cut travel times and costs for parents and guardians.
- It is also working to extend GURÍ to cover private schools, which will place every student in the system.
- GURÍ's coverage could be extended to secondary schools, at least in urban areas, to expand the existing country view of students registered in public schools.
- The number of requirements currently requested from parents could be reduced. Instead they could be consulted through interoperability with the institutions holding the data. For example, information on the birth certificate, up-to-date immunizations, or the child's health card.

Source: Authors' elaboration.
[a] Directors of Urban Schools were considered staff.
[b] Corresponding to 5.3 percent of transactions.
[c] See an analysis of the meaning of each quadrant in the section "Time is Gold" in Chapter 2 herein.

Annex 6: Socioeconomic Context and Institutional Maturity in LAC

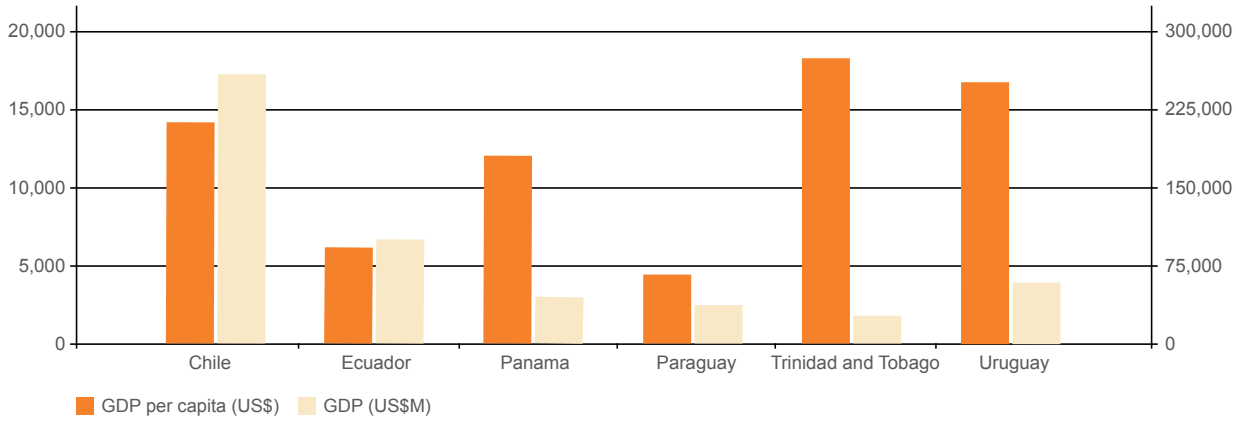
It is important to characterize the socioeconomic and institutional context in which a project such as Simplifying Lives is inserted. Hence, this annex describes the indicators that reflect the situation in the region and, in particular, in the pilot countries. Description of this environment provides a framework to facilitate interpretation of the data. Specifically, analysis of correlations identifies possible relationships between quality of services and citizen satisfaction, and socioeconomic and institutional conditions.

The socioeconomic information includes the volume of production of the economies (Gross Domestic Product or GDP), demographic information, and the level of development of the information society. With respect to the institutional maturity of public organizations, no indicator has been found to fully represent this. This gap has been partially covered by indicators that represent the maturity of the public administration in specific areas. The areas chosen as indicative of a general institutional maturity are: (i) transparency, (ii) financial management, and (iii) e-government. These three aspects are probably not the most representative, but they do give an idea of existing institutional constraints when providing services.

Socioeconomic situation in LAC:

GDP and per capita GDP: According to World Bank data,[82] per capita GDP in LAC is US$10,057. This value is similar to the world average (US$10,725) but is well below the average of Organization for Economic Co-operation and Development (OECD) countries (US$38,349). LAC's total GDP[83] is US$6.30 billion compared with US$48.8 billion for OECD countries and global GDP of US$77.9 billion. This means that the region's GDP is well below the most advanced countries, which may influence the volumes of capital that each society allocates to the public sector, and thus affect the quality of services provided, especially when there are economies of scale. Figure A6.1 shows GDP and per capita GDP for the countries participating in the pilot.

Figure A6.1: GDP and Per Capita GDP (in current dollars)

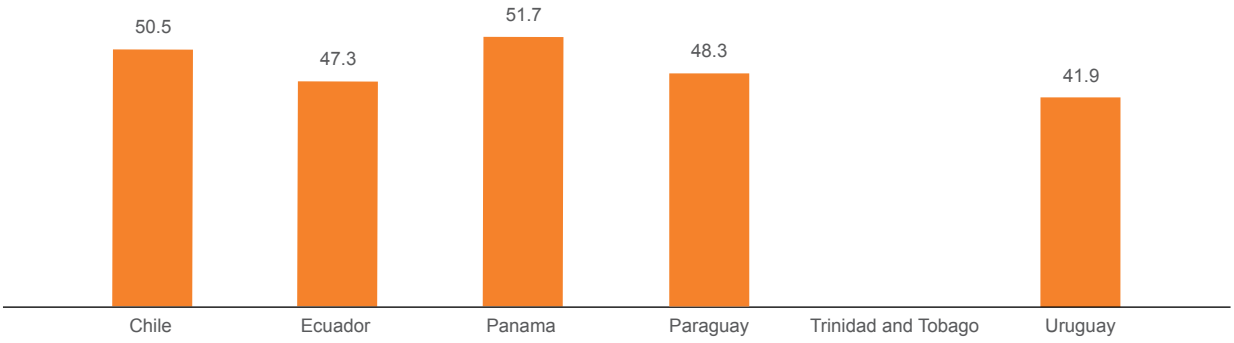


Source: World Bank (2015).

[82] http://data.worldbank.org/indicator/NY.GDP.PCAP.CD/countries (2013 and 2014)
[83] http://data.worldbank.org/indicator/NY.GDP.MKTP.CD/countries (2013 and 2014)

Inequality: One of the indicators that measures inequality is the GINI index, which assigns values between 0 and 100, where 0 represents perfect equality and 100 perfect inequality. The World Bank prepares an estimate of the index.[84] Considering the 105 countries for which data are available in the last four years, and arranging them from the most equal to the most unequal, LAC countries are ranked between positions 74 and 104, that is, in the zone of greatest inequality. In this area, except for Latin American countries, there is only one OECD country. Inequality can affect access to public services for the poorest sectors. Figure A6.2 shows the respective values for the countries participating in the pilot.

Figure A6.2: GINI Index

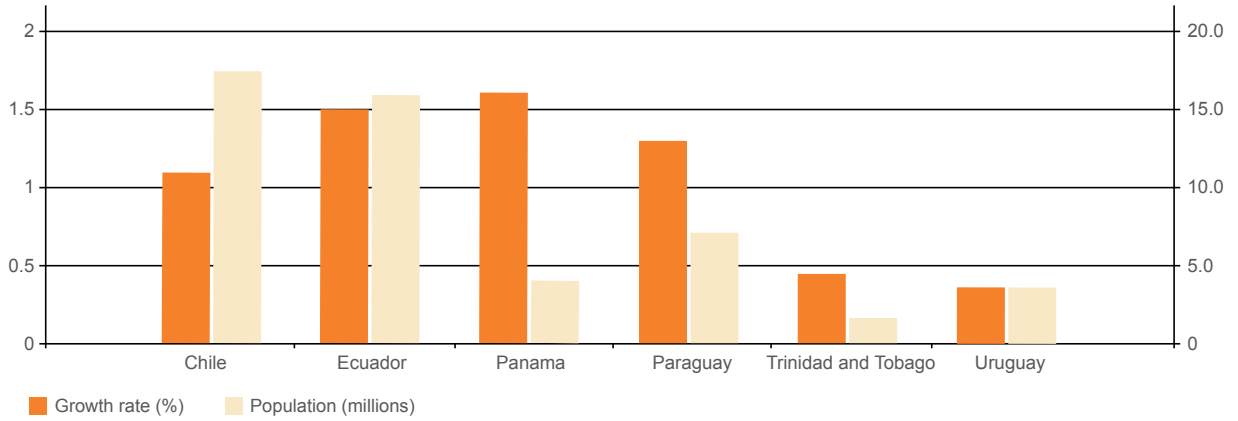


Source: World Bank (2015).
Note: There are no recent data for Trinidad and Tobago.

Population and growth rate: According to World Bank data, LAC's population is 626 million,[85] and the population of the countries in the pilot study is 49 million (8 percent). With respect to the growth rate,[86] LAC's population grows at a rate of 1.1 percent annually. This value is above the average for OECD countries (0.65 percent) and similar to the world average (1.2 percent). As a result, the region has a more dynamic situation than the most advanced countries, which will lead to a more rapid increase in demand for public services. Figure A6.3 shows population and population growth rate for the countries participating in the pilot.

[84] http://data.worldbank.org/indicator/SI.POV.GINI (2010–13).
[85] http://data.worldbank.org/indicator/SP.POP.TOTL (2014).The total population of IDB countries is 610 million.
[86] http://data.worldbank.org/indicator/SP.POP.GROW (2014).

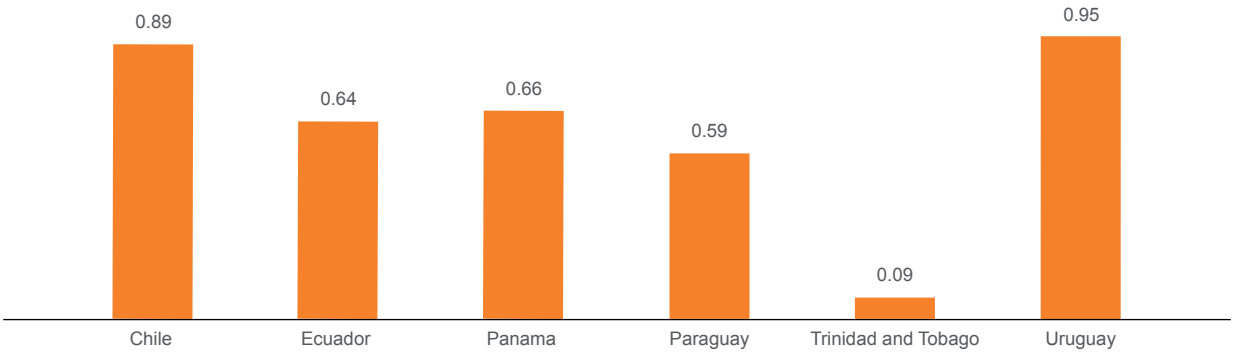
Figure A6.3: Population and Population Growth Rate



Source: World Bank (2015).

Urban population: According to World Bank data,[87] in LAC the urban population is 78 percent of the total, which is well above the global average (53 percent) and slightly below the average for OECD countries (80 percent). The region has a similar structure to the more advanced countries, which reduces logistic costs when delivering public services. Figure A6.4 shows the percentage urban population for the countries participating in the pilot.

Figure A6.4: Urban Population (% of Total)

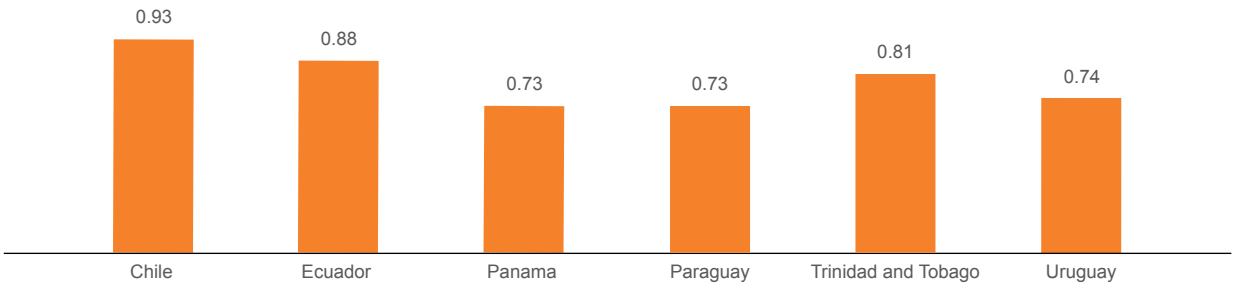


Source: World Bank (2015).

[87] http://data.worldbank.org/topic/urban-development (2014).

Education level: Education is a factor that has a major influence on individuals' capacity to conduct transactions, especially moderately complex ones, such as those required by the public sector. Several indicators demonstrate this. The World Bank[88] calculates the completion rate for basic secondary education (ninth grade). In LAC, the rate is 75 percent, which is lower than the average of OECD countries (90 percent) but similar to the global average (74 percent). This means that the situation in the region leaves plenty of room for improvement to ensure that all citizens are capable of undertaking transactions with government without help. Figure A6.5 shows the ninth grade completion rate for the countries participating in the pilot.

Figure A6.5: Ninth Grade Completion Rate



Source: World Bank (2015).

Another way of illustrating education level is to use the results of PISA tests. According to the most recent tests (in 2012),[89] the average score of the 65 countries participating is around 475 points in the three dimensions (math, science, and reading), while the average for the eight LAC countries that participated in the PISA tests was around 405 points. This could also indicate a limitation in the region with respect to the development of transactional services.

Information society: The relatively recent development of IT, evidenced in the production and widespread use of computers and expansion of telecommunications networks, has given rise to what is known as the information society, where information has come to play a fundamental role in economic development.

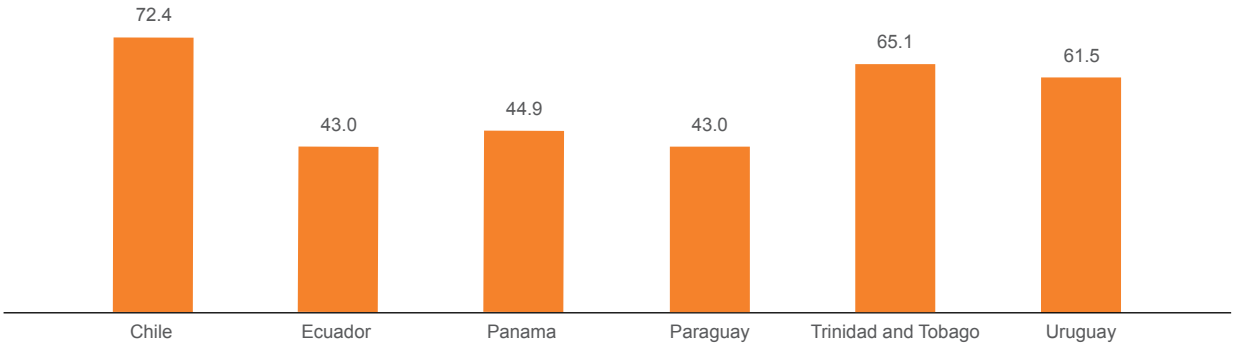
The capacity to use IT gives citizens access to more, better, and faster information. In particular, with regard to transactional public services, the widespread use of IT reduces transaction costs for both citizens and governments, and increases levels of quality and effectiveness. E government is not sustainable without a critical mass of connected citizens.

According to World Bank data,[90] in LAC 50.2 percent of the population uses the Internet. This value is higher than the world average (40.7 percent) but very much lower than the average for OECD countries (78.1 percent). This means that only half the population in the region can currently benefit directly from e-government. The other half (312 million people) only receives an indirect benefit or none. As shown by the OECD figures, much remains to be

[88] http://data.worldbank.org/indicator/SE.SEC.CMPT.LO.ZS (2010, 2012, and 2013).
[89] http://www.oecd.org/pisa/keyfindings/pisa-2012-results-overview.pdf.
[90] http://data.worldbank.org/indicator/IT.NET.USER.P2 (2014).

done to bring citizens into the virtual world. Figure A6.6 shows the percent of Internet users for the countries participating in the pilot.

Figure A6.6: Percent of Internet Users



Source: World Bank (2015).

Institutional maturity: As stated in the introduction to this annex, in order to characterize institutional maturity, comparative studies were selected in three areas: transparency, financial management of the state, and e-government.

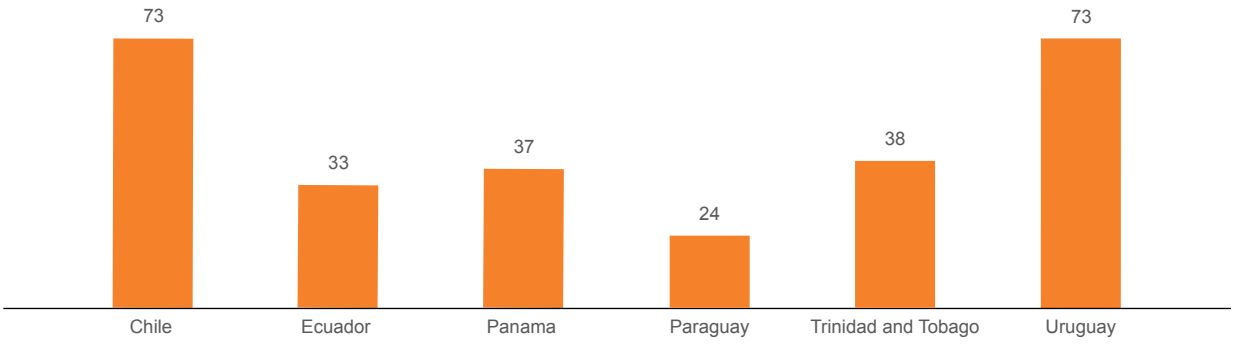
Transparency: A high level of transparency is a key factor in delivering services to citizens. Corruption undermines quality, while transparency creates trust. It should be recalled that the trust of citizens is a very significant value in itself, since management with mistrustful citizens requires more controls than would be needed in a healthy regulatory framework.

Certain information should be public, especially in the areas of management and acquisitions. However, if a high level of accountability does not accompany transparency, its virtues are weakened. Once citizens have the information, public officials have to be accountable for the failures or doubtful points identified. If this willingness or obligation to be accountable is not present, transparency has limited usefulness.

There are several instruments that demonstrate transparency and, the other side of the coin, corruption. One of them is the Corruption Perceptions Index (CPI) prepared by Transparency International, which evaluates 175 countries on a scale of 0 (highly corrupt) to 100 (very clean). The most transparent quartile contains four IDB countries; the next quartile six; the next 11; and the quartile with highest CPI, 4.[92] In Europe, of the 31 countries evaluated, 23 are in the most transparent quartile and the remaining 8 in the next one. This shows that corruption levels in the LAC region are slightly higher than the world average, and well above Europe. Figure A6.7 shows the CPI values for the countries participating in the pilot.

[91] http://www.transparency.org/cpi2014/results#myAnchor1 (2014).
[92] Belize is not included in the study.

Figure A6.7: Corruption Perception Index, 2014



Fuente: Elaboración propia.

Public financial management: This section presents the results of the study Public Expenditure and Financial Accountability (PEFA).[93] PEFA's methodological framework considers 28 indicators grouped into six dimensions: (i) credibility of the budget; (ii) completeness and transparency of the budget and fiscal management; (iii) budget adapted to public policies; (iv) predictability and control of budget execution; (v) accounting, records, and reporting; and (vi) external review and audit.

The Renzio report considers 57 countries, including only one in the OECD (Norway).[94] LAC is close to the average, and its rating is relatively good in the first dimension, which describes how realistic the budget is and how far its implementation is as planned. In contrast, the region is ranked lowest for the sixth dimension. LAC's average score is 2.49, significantly lower than the ideal (4) and Norway's score (3.44).

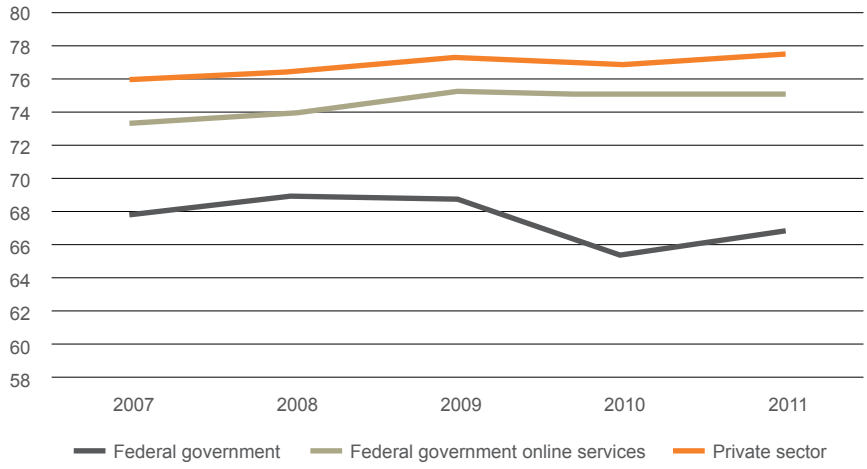
The PEFA evaluations, by providing information on the maturity of the financial management processes of governments, give an idea of the maturity of the back office of the public sector in general. Although the processes analyzed, except as regards revenue and acquisitions, have no point of contact with citizens and business, they are the fundamental base that enables the vertical units to deliver the services. For quality services to be delivered efficiently and effectively, organizations need to have a robust back office. A weak back office greatly reduces the usefulness of a modernized front office. In this respect, the region is exposing—by reaching only 62 percent of the ideal score—a weakness and a need to strengthen the organization of its public institutions.

E-government: The most important study on development of e-government is the *E-Government* Survey published biennially by the United Nations.[95] The study assumes that use of IT by governments is the key to providing public services because of its potential in terms of communication, citizen participation, and transactions.

This view is consistent with the situation in the United States. The ACSI reported in 2011 that average satisfaction for the private sector was 77.5 points (maximum 100) compared with an average of 66.9 for the federal government. However, when evaluating specific websites, it was found that the average for the private sector was 77.6 compared to 75.4 for the federal government. The much smaller gap in this aspect of services compared to the overall evaluation leads to the conclusion that e-government helps to improve citizen satisfaction. Thus, incorporating IT not only has a positive impact on efficiency (GAO, 2015) but also on satisfaction. Figure A6.8 shows that, in recent years, this pattern has been repeated (Morgeson III, 2014).

[93] See https://www.pefa.org/. To analyze the region in this respect, the De Renzio report (De Renzio, 2009) was used. Although the report is quite old, changes in this area are slow.
[94] Included as benchmark of good practices
[95] http://unpan3.un.org/egovkb/en-us/Reports/UN-E-Government-Survey-2014

Figure A6.8: Comparison between Satisfaction with the Federal Government, with Its Online Services, and the Private Sector



Source: Authors' elaboration.

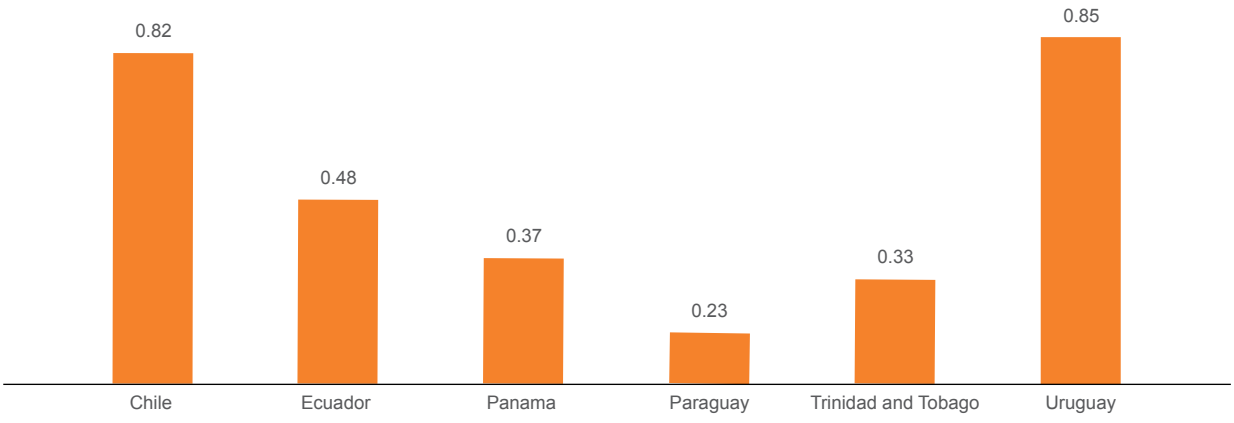
The United Nations study analyzes 193 countries and includes an index composed of three subindexes: (i) online services, (ii) education level (based on UNESCO data), and (iii) telecommunications infrastructure (based on ITU data). The score for ideal development is 1 and for worst, 0.

The online services subindex measures precisely how governments use IT when providing services. The region obtains an average score of just 0.43, indicating a position slightly above world average, although lower than the upper quartile (0.76).

This quartile includes six IDB countries; the next quartile 10; followed by 6; and in the quartile of the governments that make worst use of IT, 4. In contrast, 21 European countries are in the top quartile, 15 in the second, 7 in the third, and none in the fourth.

Considering IT is a fundamental tool to improve delivery of services, it is clear that there is significant room for improvement in the region. Figure A6.9 shows the scores for use of IT by government for countries participating in the pilot.

Figure A6.9: Government Use of IT



Source: UN (2014).

Annex 7: Reference Methodologies

In preparing the Simplifying Lives methodology, the methodologies described in Table A7.1 were taken into account.

Table A7.1: Models Considered for the External and Internal Views

Perspective	Methodological frameworks and initiatives	Authors, Origin	Focus
External: Satisfaction	SERVQUAL	V. Zeithaml, L. Berry, and A. Parasuraman, United States, 1983	Quality in services sector
	American Customer Satisfaction Index (ACSI)	C. Fornell, Ross School of Business, University of Michigan	Satisfaction
	Common Measurements Tool (CMT)	Institute for Citizen-Centred Service (ICCS), 1998	Satisfaction in the public sector, benchmarking
Internal: Quality	Models of excellence		
	European Foundation for Quality Management (EFQM)	European Foundation for Quality Management, 1992	Quality management and organizational maturity
	Baldrige Excellence Framework	National Institute of Standards and Technology (NIST), Department of Commerce, United States, 1987	Excellence, performance management
	Specific initiatives		
	Doing Business	World Bank, 2004	Administrative costs and quality of regulatory frameworks for business
	Standard Cost Model (SCM)	Various European governments, 2003	Administrative burden on business

Source: Authors' elaboration.

Each of these models establishes a series of variables that represent the concepts of quality and satisfaction. The Simplifying Lives project analyzed these structures and, on that basis, developed its own.

For the external view (citizen satisfaction), the models closest to the objectives of this project are SERVQUAL, ACSI, and CMT. The main differences between them are in the dimensions and attributes that form citizen perception, in the concept of satisfaction, and in the statistical analysis models of the data. Table A7.2 compares the structures of the variables.

Table A7.2: Comparison of Dimensions and Attributes of SERVQUAL, ACSI, and CMT Models

SERVQUAL		ACSI (not exhaustive)		CMT (Model in Australia)	
Dimensions/Attributes		Dimensions/Attributes		Dimensions/Attributes	
Tangible elements	Personnel identification	Processes	Easiness	Satisfaction	Time
	Signposting		Clarity		Access
	Access and location		Access to forms		Overall satisfaction
Responsiveness	Rapidity of service		Efficiency	Performance	Honesty
	Availability of information		Time to complete the process		Information
	Waiting time	Information	Quality		Commitment/ attitude
	Rapidity of completion of procedures		Clarity		Competence
Empathy	Understanding of the user		Access to information		Access
	Concern and interest of staff	Customer service	Professionalism		Waiting time
Reliability	Trust and credibility		Courtesy		Navigation
	Simplicity and clarity of the service		Diligence		Appearance/ usability
Assurance	Kindness and courtesy		Knowledge of call center		Privacy
	Attitude of staff	Website	Navigation	Result	Fitness of results
	Professionalism and training of staff		Clarity of information		
	Confidentiality		Search usability		

Source: Authors' elaboration.

In relation to the elements that make up citizen satisfaction, differences can be found between the dimensions and attributes of each methodology; however, a broad consensus can be inferred from measurement of the dimensions related to the service received by citizens (with attributes such as courtesy and competence of the staff) and efficiency of the process (with attributes such as time).

In the ACSI and CMT models, the dimensions and attributes have varied in different adaptations and over successive editions to consider the evolution of the models and the technologies used to provide services. The most significant change has been the irruption and consolidation of services through online channels. The SERVQUAL model, although it has not formally evolved, has been implemented with adaptations in most cases.

In any event, all of these models are sufficiently flexible to adapt to the characteristics of the needs of an institution (personalizing attributes or drivers) or of a particular service (especially in terms of the nature and channel of the service). Perhaps what most distinguishes the models analyzed are the concepts and the model of analysis of the information collected from the questionnaire. CMT is mainly a catalog of questions that the organization personalizes. The information processing is based on averages per question that are compared to other organizations (benchmarking) and with the organization's own evolution (improvement). SERVQUAL relates satisfaction to the difference between users' expectations and perceptions,

analyzed on the basis of arithmetic means and standard deviations. In contrast, ACSI defines satisfaction as a composite index of manifest variables processed by SEM-type algorithms.[97]

Finally, in terms of data collection methodologies, there is a high level of heterogeneity. Although ACSI preferred to conduct phone surveys in order to clarify questions and terms to respondents (Market Strategies, 2005), since 2004 it has conducted online surveys especially to measure satisfaction with products and services accessed through the online channel. CMT has been successful with mail surveys (Babakus and Mangold, 1992) with the advantage of having a well-known sampling frame. Lastly, the experiences identified in SERVQUAL have combined different methodologies depending on the institution, with face-to-face, telephone, and mail surveys the most common.

All of these methodologies have consolidated benchmark experiences: CMT in the Governments of Canada (where citizen satisfaction improved 12 percent between 1998 and 2005) (Marson, 2007), Australia, and New Zealand; SERVQUAL is the reference model for analysis of citizen satisfaction in the Spanish public administration (AEVAL, 2009), as well as the basis of experiences such as the Peruvian Ministry of Health (Ministry of Health of Peru, 2013); lastly, ACSI is present in more than 100 federal departments of the U.S. federal government.

Institutional quality: From the internal view, different tools and benchmark models are used to analyze quality by studying the quality management systems. For this study the references are classified into two groups: (i) models of excellence, and (ii) initiatives focused on specific aspects of quality management (methodologies that do not develop a comprehensive proposal but are innovative in their analysis of efficiency and quality).

Models of excellence: Models of excellence provide an integrated framework for quality assessment in organizations. Although it is not the purpose of this study to develop a model for the region with these characteristics,[97] an approximation to them can be used to identify the dimensions that need to be considered when assessing the internal quality of transactional services. These models are based on systemic schemes that consider dimensions of analysis, criteria, and subcriteria, which are assigned a score based on evidence or results.[98]

The models considered are: (i) EFQM Excellence Model,[99] and (ii) Baldrige Excellence Framework (NIST, undated). Table A7.3 provides the main assessment dimensions for both models.

Table A7.3: Relevant Models and Their Main Dimensions

Model	Dimensions/Criteria
EFQM	Level of agents and facilitators: • Leadership • Policy and strategy • Personnel management • Resources and processes Results level: • Customer satisfaction • Staff satisfaction • Impact on society and results
Baldrige Excellence Framework	• Leadership • Strategy • Customers • Measurement, analysis, and knowledge management • Workforce • Operations • Results

Source: Authors' elaboration.

[96] Structural Equation Modeling.
[97] There are experiences in this area such as the Ibero-American Model of Excellence in Management, created by FUNDIBEQ (http://fundibeq.org/). Accessed May 2015.
[98] That is, facts or data that can be demonstrated through observation and that justify the score assigned in the assessment.
[99] Excellence Model of the European Foundation for Quality Management (http://www.efqm.org/). Accessed December 2015.

Both models consider citizen satisfaction a dimension of analysis integrated into quality. However, these analysis frameworks do not include identification of the correlation between citizen satisfaction and the internal attributes. The models can also be used as self-assessment tools for quality improvement; however, for both, external recognition (award, seal of quality, or certification) requires an external assessment of institutions or expert certifiers.

Lastly, although the EFQM Excellence Model has been considered as a reference model, it has adaptations, such as the CAF[100] (Common Assessment Framework) or EVAM, both of which are derived from the simplification and adaptation to the public sector of total quality models in general and the EFQM in particular.

Initiatives in specific dimensions: As stated in the introduction, it is possible to find various initiatives of development indicators or quantitative variables that cannot be considered part of the quality or excellence models but which, nonetheless analyze the elements that affect the efficiency and quality of services, and thus citizen satisfaction. These initiatives can be useful for identifying best practices in management of services as well as internal elements that relate to satisfaction. The *Doing Business* project (quality and regulatory efficiency) and the Standard Cost Model (regulatory cost for businesses and citizens) are analyzed below.

Doing Business:[101] The *Doing Business* project is a methodology developed by The World Bank, covering 189 economies, that analyzes and measures the regulations governing business activity, comparing the regulations applied to the activities of small and medium size enterprises throughout their life cycle. Its aim is to promote, through benchmarking and dissemination of good practices, simplification and reduction of the cost of all transactional business services. This is a significant difference from the Simplifying Lives project, which focuses on events in the life of people rather than businesses.

The information is presented mainly in efficiency indicators (time, cost, and number of steps in procedures). The indexes offered create incentives to reform processes and are a useful resource for academics, journalists, private sector researchers, and others interested in each country's business climate. The study detects opportunities to reduce the complexity, time, and costs for businesses. The indexes are supplemented by recommendations for reform aimed at improving the results in each area analyzed.

The methodology takes into consideration 11 events in the life of a business.[102] For each one, the study considers two dimensions:

- Regulation: Measures the soundness of the legal and regulatory framework.
- Cost and efficiency in required procedures: Corresponding to procedures, costs, and time required to complete each transaction in accordance with regulations.

The main sources of information are opinions of local experts, consultations with governments, and the experience of World Bank staff. In general, the study focuses on the main city in each country, and extrapolates the data to the rest, which could lead to distorted views about what is happening in other cities.

In recent editions of the study, the indicators have been supplemented by more qualitative analyses of the regulatory framework (e.g., quality of territorial administration in relation to the property registration indicator).[103]

SCM:[104] The SCM is a methodology for determining costs[105] for businesses arising from the obligation to comply with regulations. Its measurement is intended to improve regulations by simplifying paperwork or forms, reducing the frequency of procedures, eliminating redundant requirements

[100] European Institute of Public Administration (EIPA) (http://www.eipa.eu/en/topic/show/&tid=191). According to a study conducted in 2011, more than 400 public bodies in Europe were using the CAF framework (http://www.eipa.eu/files/File/CAF/CAF_Study_2011_Executive_Summary.pdf).
[101] http://www.doingbusiness.org/. Accessed in May 2015.
[102] Procedures or transactional services.
[103] http://www.doingbusiness.org/methodology/methodology-expansion. Accessed in February 2016.
[104] http://www.oecd.org/gov/regulatory-policy/34227698.pdf. Accessed in May 2015, SCM Network.
[105] The SCM considers the costs arising from providing documents or information, along with travel costs and time lost during the procedures.

(e.g., no information is requested that has already been provided to other institutions or departments), and automating processes, reducing costs not only for businesses but also the time and effort of the providers.

Quality and satisfaction in LAC: The process of defining a methodological framework for LAC must not overlook analysis of the initiatives to measure quality and citizen satisfaction that have been implemented by governments or non-governmental organizations in the region. As in previous sections, this analysis is not intended to be exhaustive.

This section analyzes the Ibero-American Charter of Quality in Public Management and gives a brief review of initiatives to measure quality and satisfaction implemented across the region.

Ibero-American Charter of Quality in Public Management: This charter was approved at the 2008 meeting of the Latin American Center for Public Administration and Development (CLAD) (Ibero-American Charter of Quality in Public Administration, 2008). This is an excellent compendium of principles and tools for quality management. Based on the assumptions that quality public administration is a right for citizens and that all public management must focus on citizen satisfaction, the charter summarizes experiences in the region, such as the National Quality Awards, local regulations, and international models.

The most important rights of citizens included in the charter are: (i) the right to flexible, timely, and appropriate service; (ii) the right to request and obtain public information on the performance of public institutions; (iii) the right to know all the information about the requirements of each procedure; (iv) the right to complain and receive prompt and adequate response; (v) the right to have privacy preserved; (vi) the right to respectful treatment and public officials who feel obliged to facilitate the exercise of citizens' rights; and (vii) the right to participate in evaluations of the performance of service providers and to know the result.

The strategic priorities for quality in the public sector established in the charter are: (i) public management must satisfy citizens' needs and expectations; (ii) any process of public management must pursue the creation of public value, which must be quantifiable; (iii) managers must be highly qualified and possess leadership skills; (iv) management must be process oriented; (v) organizations must implement continuous processes for learning, innovation, and quality improvement; and (vi) service institutions must be open to other public bodies and private entities to improve provision of services.

The instruments that facilitate quality management prescribed by the charter include: (i) citizen surveys, both as instruments of citizen participation and because of their usefulness for identifying the changing needs and expectations and the quality attributes; (ii) stable quality management teams, including project offices responsible for continuous improvement processes; (iii) commitment letters (public documents containing the commitments made by the institutions mainly regarding the execution deadlines and quality standards to be met); (iv) regulatory management, based on the principle that the regulations should favor flexibility when dealing with the changes imposed by a changing context, with continuous processes of regulatory reform and impact studies for each new regulation; (v) optimum use of IT; (vi) introduction of a culture and practice of measurement; and (vii) benchmarking and exchange of best practices with other public institutions.

Review of initiative: Table A7.4 presents a non-exhaustive summary of the initiatives taken in the region.

Table A7.4: Review of Initiatives

Initiatives	Country	Sponsor	Reference framework	Focus	Technique	Latest report published
Model of Excellence in Public Management (MEGP) (Secretaria de Gestão, 2008)[106]	Brazil	Ministry of Planning, Secretary of Public Management	Baldrige Excellence Framework	Integrated quality model	Self-evaluation	2014
Analytical model ChileAtiende (Ipsos MORI, 2002)	Chile	Ipsos MORI	Several, including ACSI	Satisfaction	Satisfaction surveys, regressions	2014
RankinCAD[107]	Peru	Ciudadanos al Día		Quality of customer service, satisfaction, importance	Satisfaction surveys, regressions	2010

Source: Authors' elaboration.

As can be appreciated, the MEGP is a model of excellence based on the Baldrige Excellence Framework and, therefore, like that model and the EFQM model, constitutes a framework for self-assessment of the organization's internal quality, where evaluating citizen satisfaction is one more element of scoring.

In contrast, ChileAtiende and RankinCAD are models of evaluation of citizen experience and satisfaction, which measure a set of dimensions and attributes with most impact on user satisfaction. ChileAtiende, like ACSI, develops an analytical model based on structural equations, observable variables, and latent variables that considers the service, access, relation/experience, and products critical elements of providing the service. RankinCAD structures its model into six large dimensions (infrastructure and facilities, information, customer service, process and results, integrity, claims and complaints) and 19 related attributes. Measurement determines the level of importance that citizens give to each attribute of the service and the respective satisfaction level.

*

One of the citizen rights established in the Ibero-American Charter of Quality in Public Management is the right to participate in performance evaluations of service providers and to know the result thereof.

[106] http://www.gespublica.gov.br/biblioteca/pasta.2011-01-11.8044815293/instrumento_para_avaliacao_da_gestao_publica_-_ciclo_2008-2009.pdf.
[107] http://www.ciudadanosaldia.org/RankinCad/faq/default.htm http://www.ciudadanosaldia.org/RankinCad/sobre/como.htm. Accessed in May 2015.

Table A7.5: Comparison of Attributes of the Simplifying Lives Model and the Benchmark Models

Dimensions	Attributes	Simplifying Lives	SERVQUAL	ACSI	CMT	RankinCAD
Process	Time	✓	✓	✓	✓	✓
	Costs for citizens (charges + travel costs)	✓				✓
	Modalities (channels offered)	✓		✓	✓	
	Perceived efficiency of process	✓		✓	✓	
Customer service	Courtesy	✓	✓	✓		✓
	Competence	✓	✓	✓	✓	
	Integrity of staff	✓	✓		✓	
	Empathy	✓	✓		✓	
Tangibles	Access	✓		✓		
	Location	✓				
	Facilities (cleanliness and comfort)	✓	✓			✓
Information	Clarity	✓	✓	✓		
	Usability	✓		✓	✓	
	Access	✓		✓	✓	✓

Source: Authors' elaboration.

Annex 8: Participating Institutions

Table A8.1 identifies the institutions interviewed and evaluated for the internal view.

Table A8.1: Participating Institutions

Country	Service	Institution(s)
Chile	Registering a birth	Civil Registry and Identification
	Disability allowance	SENADIS
	Renewing an ID	Civil Registry and Identification
	Obtaining doctor's appointment	Sub-secretary of Health Care Networks of Health Ministry
	School registration	Ministry of Education Municipalities (regulated by the Ministry of Education): Providence, Recoleta, and Lo Prado[a]
	Reporting a theft	Public Prosecutor Police Investigations (PDI)
Ecuador	Registering a birth	Civil Registry
	Disability allowance	Ministry of Public Health
	Renewing an ID	Civil Registry
	Obtaining doctor's appointment	Ministry of Public Health
	School registration	Ministry of Education
	Reporting a theft	State Attorney General
Panama	Registering a birth	Electoral Tribunal
	Disability allowance	SENADIS
	Renewing an ID	Electoral Tribunal
	Obtaining doctor's appointment	Social Security
	School registration	MEDUCA (Ministry of Education)
	Reporting a theft	DIJ (Judicial Investigation Department)
Paraguay	Registering a birth	Civil Registry
	Disability allowance	SENADIS
	Renewing an ID	Ministry of Interior
	Obtaining doctor's appointment	Ministry of Public Health and Welfare
	School registration	Ministry of Education
	Reporting a theft	Observatory of Citizen Security and Coexistence, Ministry of Interior

(continued on next page)

Table A8.1: Participating Institutions *(continuation)*

Country	Service	Institution(s)
Trinidad and Tobago	Registering a birth	Ministry of Legal Affairs
	Disability allowance	Social Welfare Unit of Ministry of People and Social Development
	Renewing an ID	Elections and Boundaries Commission
	Obtaining doctor's appointment	Southwest Regional Health Authority Sangre Grande Hospital
	School registration	Ministry of Education
	Reporting a theft	Police Service: Belmont Police Station
Uruguay	Registering a birth	Civil Registry
	Disability allowance	
	Renewing an ID	Ministry of Interior, National Civil Identification Department
	Obtaining doctor's appointment	Administration of State Health Services
	School registration	National Administration of Public Education
	Reporting a theft	Ministry of Interior

Source: Authors' elaboration.
[a] Lo Prado was interviewed but questionnaires were not responded. Consequently, for this report only Providencia and Recoleta were considered.

Annex 9: Glossary

ACSI	American Customer Satisfaction Index
ANN	Artificial Neural Networks (see neural networks below)
Attributes	Represents all measurable elements that can contribute to changing the levels of satisfaction. All the most influential attributes are considered determinants of satisfaction.
Benchmarking	Process of identifying improvements by comparing an organization with the best in its sector or with best practices. The dimensions typically analyzed are quality, time, and operating costs.
Citizen	With respect to provision of services, the citizen is an individual who engages in transactions with the government. It includes citizens in the strict sense and any person (resident, tourist, etc.) who needs to interact with government. The term is neutral from the point of view of gender.
CMT	Common Measurement Tool
Composite indicator	Indicator that synthesizes the performance of a service or entity obtained by means of a calculation that combines a series of key indicators.
Deductive research	Research that measures directly, through explicit questions, the preferences of citizens.
Dimensions	Set of variables (attributes) that share thematic affinity.
Doing Business	Quality methodology developed by The World Bank that measures efficiency (time, costs, and procedural steps) and the impact of regulation on the economic sphere of member countries. It is an important tool for establishing improvement processes that result in an economic benefit for the countries.
Driver	Factor driving or determining the change in a variable.
E-government	Use of IT by government to provide information and public services to people.
Excellence	The conditions necessary for achieving a higher level and excelling as the best among the best.
Expectations	The expectations and rating of the service that citizens had before the procedure.
Explicit satisfaction	Level of satisfaction expressed by the informant in response to a direct question (“In general how do you rate your level of satisfaction with the experience you had of the service?”).
Governance	Set of mechanisms for decision-making and accountability.
ID	Identity card.
Implicit satisfaction	The target variable of the study obtained by averaging explicit satisfaction with the ideal quality and then rounding the result. That is, Satis_Impl = ROUND((Satis_Expl + Ideal_calidad) / 2).
Inductive research	Research which, through subjective perceptions about a service, infers preferences, for example, with questions that measure the level of agreement with a couple of statements.
IT	Information technologies.
LAC	Latin America and the Caribbean.
Latent variable	Variable inferred through manifest variables; variable that cannot be measured directly; dependent variable.
Manifest variable	Variable evaluated by direct measurements; independent variable.
Models of excellence	Models that provide an integrated framework for quality assessment in organizations. The most important references are in the following models: EFQM and Baldridge Excellence Framework, both successfully adapted to public administration.

(continued on next page)

Neural Networks	Statistical model whose functioning is inspired by neurons. A network where each node behaves as a neuron: receives stimuli (inputs) and produces discharges (outputs).
PEFA	Public Expenditure and Financial Accountability
Perceptions	Value judgment generated from the experience obtained from use of a service.
Population	In relation to surveys, the set of all individuals who have certain common characteristics.
Quality	Degree to which the services and products meet citizens' needs and expectations.
Quality management system	The organizational structure, policies, processes, procedures, resources, and technologies defined and implemented so that the organization can manage the quality of the products or services delivered and reach the levels required by customers.
RankinCAD	Citizen satisfaction model developed in Peru that assesses and measures the quality of the service provided by public entities using studies of satisfaction and the real experience of citizens.
Regulations	Set of rules that citizens and businesses must comply with.
Sampling error	Error caused by observing a sample instead of the entire population.
Sampling frame	List of elements of the population from which it is possible to select the sampling units. A sampling frame can be a list of registered voters, a telephone directory, a list of employees, the set of records in a database, or the record of streets and blocks.
Satisfaction	Level of coverage of users' needs, expectations, and demands. Related to perceived quality (the greater the perceived quality, the greater satisfaction) and to the difference between perceived quality and expectations prior to receiving the service.
SCM	Standard Cost Model
SERVQUAL	Multidimensional model of citizen satisfaction that takes the form of construction of a multi-scale, resulting from the quality of the service, the degree of user satisfaction, and the relationship between expectations and perceptions.
Transactional service	Procedure involving exchange of information and possibly payments between citizens and businesses on one hand and the administration on the other. Usually implemented as a business process using forms or other information supports.
UN E-government Ranking	Model of institutional quality that recognizes the use of technology in government as a key element in providing efficient public services, through communication, participation, empowerment, and response to the citizens' needs. The model considers three dimensions (availability of online services, telecommunications infrastructure, and human capacity), forming a composite indicator.

Source: Authors' elaboration.