From the quality of traditional services to the quality of local e-Government online services: A literature review

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ABSTRACT

The study presented in this article will serve as a basis for the development of a suitable model whose purpose is to evaluate the quality of local e-Government online services. Citizens expect quality public services, and their online dimension is no exception. The quality of these services should be analysed and accounted for, in order to maximize and develop strategies that improve the offered services, increasing the levels of satisfaction of their recipients. In this sense, this first study puts forth a systematization of the relevant bibliography, focusing on the quality of three types of services: traditional, electronic and e-Government. Each model was analysed in order to identify the main quality dimensions used. Up to the present moment, we were unable to identify a service quality evaluation model particularly focused on Local online e-Government, and this justifies the development of an investigation project whose main purpose is to create a model with these specificities.

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1. Introduction

An e-Service in the government context consists in the provision of transactions by the online channel. For example, request and pay a licence for building.

The provision of services in governmental portals is a constant which as influenced the strategies of electronic services offered by several governments all over the world. More than offering services, development related policies have tried to widen the scope of their actions, bringing together the necessary aspects for an accurate alignment between the implementation of public services and the needs of the population. Consequently, Local Public Administrations are nowadays faced with a challenge of administrative modernisation, which tries to draw citizens closer to their services and, concurrently, to dematerialize their processes (Rocha & Sá, 2013; Sá & Rocha, 2012).

Over the last years, the quality of services in the public sector has given way to significant concerns. Many organizations have started to self-assess and measure the quality of the services they provide (Papadomichelaki, Magoutas, Halaris, Apostolou, & Mentzas, 2006).

According to the press release by WASEDA — IAC 10Th International E-Government Ranking, 2014, "E-local Government and Smart Cities" is perceived as one of the next 10 trends for the development of the e-Government.

The European Commission (2013), in a press release, declared that in the universe of EU Citizens, 46% use the Internet to look for a job, to use the public library, to submit tax declarations, to register births, to request a passport or to use other public administration services. In the same document, it is said that 80% of the citizens believe that the public services offered on the Internet allow them to save time, 76% appreciate their flexibility and 62% claim to save money with them. Consequently, it is of the utmost importance to create and study models and concepts that measure, in the context of local municipalities, the quality of online e-Government services, in order to improve both the services and the satisfaction level (Sá, Rocha, & Cota, 2015). By satisfaction, in this case, we understand the quality of every interaction experienced by local government entities and citizens in the provision of online services by the firsts to the seconds.

In the course of this study, we carried out a bibliographic review and analysed relevant models that are used to measure the quality of three types of services: traditional, electronic and e-Government services. The present paper is the first step in a path that will lead to the creation or adaptation of a model that is capable of globally evaluating the quality of services in a local online e-Government context, by focusing on the dimensions of several existing models.

The main purpose of this paper is, therefore, to put into context and prepare the way for a more in-depth study which adapts or creates, if necessary, a comprehensive evaluation models for local online e-Governments.

Accordingly, in the following sections, we set the framework and define quality according to three types of services – traditional, electronic

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and e-Government services – and analyse relevant models that were validated in several studies, focusing particularly on the main dimensions used by the authors to put into practice their service quality measurements. This being the first step in a long path, it is our intention that, by the end of this paper, the reader understands the direction and the models that will be followed in order to use, adapt or create a models that is capable of measuring the quality of local online e-Government services.

2. Services quality

Ever since the dawn of civilization, human beings resort to others for the provision of services. These services vary from their most traditional format to modern day electronic services.

According to Parasuraman, Zeithaml, and Berry (1985), when the consumer purchases a good in the traditional way, he evaluates that purchase according to several factors, such its style, texture, colour, tags, and package. On the other hand, the purchase of services is often intangible.

Parasuraman, Zeithaml, and Malhotra (2005) contend that the term 'traditional service quality' includes the quality of every interaction experienced by clients outside of the Internet, as well as their personal experiences with companies. When a citizen resorts to an organization for the provision of a service, whether the interaction follows the traditional or the electronic format, there is a constant need to evaluate the quality of this interaction.

Hien (2014), says the quality of the service can be defined as a measure of the extent to which the provided service corresponds to the expectations of the clients. Therefore, the quality perceived in the provision of a service became a determinant success factor in every field of a commercial activity (Connolly, 2007). Similarly, Lee and Kim (2014) mention that the ability to measure the quality of a service is prerequisite to achieve a high quality level. In their study, Khawaja and Bokhar (2010) report that organizations experience difficulties when evaluating the quality of the services provided to their clients, that is, difficulties when evaluating the existence of a flaw in a service or if the delivery takes place within the defined time frame. The perspective of the client concerning the quality of the service that was provided is fundamental to measure his satisfaction.

Parasuraman, Zeithaml, and Berry (1988) refined their previous service quality evaluation model (Parasuraman et al., 1985) and created the SERVQUAL. In short, the authors suggest that a realistic service quality perception stems from the chasm between consumer expectations and the performance of the service that is actually delivered. Thus, carrying out new studies, with new data collections and analysis, they were able to improve their scale, reducing the initial ten dimensions to seven: 1) Tangibles; 2) Reliability; 3) Responsiveness; 4) Communication, Credibility, Safety, Competence; 5) Courtesy; 6) Knowing the customer; and 7) Access.

Table 1
SERVQUAL dimensions.

Tangibles	The physical appearance of equipment and staff involved in the provision of services
Reliability	The ability to deliver the offered service in the scheduled date and time, independently of any problems that may arise
Responsiveness	The ability to help every client in an unhesitating way and to effectively and positively promote the service
Assurance	The ability to inspire trust, security and technical quality on the part of the staff when delivering a service
Empathy	The available and unhesitating assistance provided to the client, individualized and focused on his main interests

In a second stage, which entailed another improvement of the study, SERVQUAL was reduced to five dimensions (Table 1).

Indeed, SERVQUAL is a scale of reference in the academic world, as its adoption, in its original format or as a basis for the development of a different tool, in many studies and investigations works proves. To point out a few examples: the SERVPERF scale (Cronin & Taylor, 1992) for traditional services; the E-S-Qual tool (Parasuraman et al., 2005); the revised SERVQUAL scale (Li & Suomi, 2009) for electronic services; the adoption of the SERVQUAL tool together with the E-S-Qual tool by Connolly (2007), with the necessary adjustments to evaluate Irish service fees (*Irish Revenue On-Line Service*); the proposal to evaluate *e-Government* related services by Alanezi, Kamil, and Basri (2010); the adoption, in the study carried out by Srivastava, Teo, and Nishant (2011), of the Gap SERVQUAL model to assess the relationship between the gap observed in the quality of a service and citizen satisfaction; in the study by Jinmei (2011), the authors prepare and test twenty eight items divided according to the five SERVQUAL dimensions in an *e-Government* context.

3. Electronic services quality

With the advent and massive dissemination of the Internet, the provision of electronic services is increasing all over the world. Li and Suomi (2009) declare that, faced with the quick growth of the Internet and the globalization of markets, companies accepted and adopted new information technologies and new communication channels in order to provide electronic services to their clients.

The accessibility of this type of services is increasing, both on a technical and on an economical level, and its impact and dissemination reaches an increasingly diversified and demanding global market. Vu and Aberer (2009), following the same line of thought, observe that, more and more, the so-called traditional services are being offered electronically through the Internet.

Zaidi and Qteishat (2012) define electronic services as those that are provided via the Internet. The same authors mention that the primary value in the exchange that occurs between the two parts (the buyer and the seller) is information. To Akinci, Atilgan-Inan, and Aksoy (2010), the survival of a company depends, primarily on the perception that the consumers develop towards the quality measurement of the electronic services provided.

Alanezi, Mahmood, and Basri (2012) believe that the concept of quality in an electronic service derives from the quality of traditional services. The same authors mention that this new type of service is a fundamental success factor for any organization that works in an online market, which should be accounted for in order to avoid any failure resulting from inadequacies in this field. According to Li and Suomi (2007), electronic services differ from traditional services, to the extent that they depend on the interactive information flow between customers and service providers.

The relationship established between online service users and online service providers should be positive and reciprocal. Loyalty between electronic services clients and their providers should also be ensured in terms of service quality, as was previously required in the relationship established between clients and traditional service providers.

In the same line, Li and Suomi (2007) refer that the quality of a service, both on a content and on a functional level, should be accounted for by companies who wish to attract clients in an electronic market. Moreover, a solid service quality index and function quality deployment may increase the psychological satisfaction of clients, which plays a vital role in the decision to buy a product or a service online and in the shaping of trust and loyalty towards the service provider.

Quality electronic services can provide competitive advantage online (Rocha, 2012), improving organizational performance and client satisfaction (Alanezi et al., 2012). This being a determinant factor for