



E-GOVERNMENT SERVICE QUALITY MEASUREMENT: A LITERATURE REVIEW

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Abstract : This investigation aims to synthesize related work in the field of e-Government service quality. Governments are responsible for delivering easy and effective services to the public, so they adopted electronic government as a way to reduce costs, improve services, save time, and improve public sector performance and effectiveness. Support via the internet one of the most important factors in determining whether an e-government initiative succeeds or fails is quality. It improves the performance and efficacy of governments, as well as user relationships and satisfaction. The evaluation of e-service quality is a challenging task because it is based on citizens' perceptions, which are difficult to understand and quantify. The aim of this paper is to examine scales for measuring the quality of e-government services that include an assessing scale based on defining the important e-service quality dimensions. These dimensions address critical e-services criteria in order to improve e-service efficiency.

Keywords: E-services, Quality of e-government, e-government, Dimensions of e-services

I. INTRODUCTION

This paper published a comprehensive analysis of broad research and theory relating to e-government services, their quality, and methods for evaluating the quality. In order to clarify information and provide insight into the history and meaning of e-government research, many studies are collected and analysed.

The analysis of this paper is divided into five key parts. The first is about the philosophy of e-government, including its meaning and forms. The second section covers the obstacles to and advantages of e-government implementation. The third segment included an in-depth look at high-quality e-government systems, including their dimensions and metrics. The proposed e-services quality dimension is introduced in the fourth part, and the conclusion is in the fifth. In general, this paper summarizes the literature and provides a theoretical basis for e-government service quality scales measure, which can aid in addressing all of the important issues that provide a strong view of the reality and ambition of e-government services and their quality.

II. E-GOVERNMENT CONCEPT

E-government has emerged as a major and powerful tool for increasing government-to-stakeholder engagement. It has the potential to improve productivity and lower costs, as well as promote transparency and accountability, all of which contribute to a country's overall growth.

(a) E-Government Definition:

There are many e-government definitions in the literature, but none is universally agreed. Some of them are solely focused on using information and communication technology (ICT), especially the Internet, to improve and streamline government services. Others say that e-government is the most effective way to change governance and government. The following are some of these definitions:

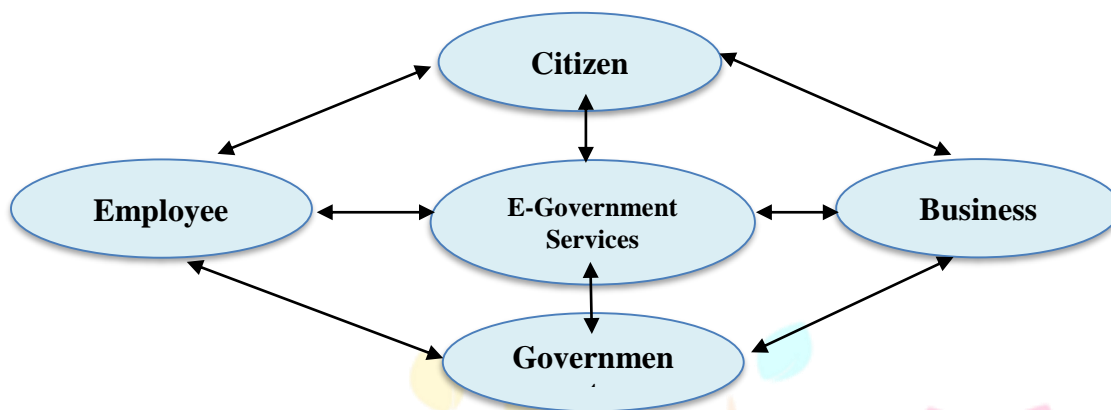
1. E-government refers to "government owned or operated systems of information and communication technologies that transform relations with citizens, the private sector and other government agencies so as to promote citizen empowerment, improve government efficiency and service delivery, strengthen accountability and increase transparency".
2. The World Bank defines e-government as "the use by government agencies of ICT like wide area network, the internet and mobile computing that have the ability to transform relations with citizens, businesses, and other arms of government"
3. UNESCO defines it as, "E-governance is the public sectors use of information and communication technologies with the aim of improving information and service delivery, encouraging citizen participation in the decision-making process and making government more accountable, transparent and effective".
4. The e-government common definition means using ICTs to boost and facilitate the government business, like enhancing public services or managing government internal processes.
5. Most researchers agreed that e-government is the utilization of ICTs by government to perform business to and interact with citizens and businesses by using the Internet and another different electronic mediums.

6. E-government is the capacity of various sectors of government to provide information and services to citizens electronically in quick and accurate way, with less costs and effort any time via a single website.

(b) E-government Types:

Several forms of e-government have been developed based on the use of ICT to smooth interactions between the government and other parties.

Figure 1 Represents the different types of E-Government and their relationships.



a. Government-to-Citizen (G2C)

E-government focuses on making data accessible to people through the internet. When governments figure out a way to provide online services tailored to citizens' needs, this is referred to as citizen-centric e-government.

b. Government-to-Business (G2B)

E-government focuses on how to use ICTs to make it easier for the government to purchase goods and services from the private sector and to conduct transactions with private organisations.

c. Government-to-Employee (G2E)

The emphasis of this form of e-government is on relationships among government employees in order to manage internal processes and improve the internal adequacy of business processes.

d. Government-to-Government (G2G)

This type concentrates on providing services to other governments' entities. This comprises managing activities with stakeholders from national and local government as in humanitarian or crisis response cases.

III. E-GOVERNMENT IMPLEMENTATION

Governments around the world are preparing the tools needed to incorporate e-government initiatives and provide more effective processes and services. Implementing e-government should consider all the benefits and barriers.

(a) E-Government Benefits and Barriers

The growing need to extend and accelerate the application and growth of e-government projects necessitates the development of realistic solutions to address the roadblocks that obstruct their implementation. Meanwhile, researchers have identified many advantages and challenges in the creation and implementation of e-government. The advantages and challenges were addressed in the sub sections that followed.

(b) Benefits

Governments are attempting to use electronic government to provide services to residents and businesses. As a result, e-Government is expected to play an important role in governance and public administration in the near future. It will help to reform administration forms and improve government competence while also providing people with more opportunities to participate. The transformation of government to be fully citizen-centric is a clear goal.

In general, the benefits of e-government are greater than expected. Many benefits were reported by the researchers. The most common benefits are as follows:

- Stakeholders will receive information, expertise, and services in a more efficient and cost-effective manner.
- Cost-cutting measures.
- Encourage cooperation between government units and residents.
- Improve the effectiveness and performance of government departments.
- Increase citizen loyalty and service delivery.
- Makes it more transparent.
- There will be less corruption.
- Improve the administration of the government.
- A better quality of life.
- Assist in the development of citizen-government trust.

(c) Barriers to E-Government

Even though e-government is a powerful driver of economic and social development, many countries, especially developing countries, are still unable to fully benefit from it due to numerous obstacles and barriers. As seen below, we developed a common framework for the opportunities and challenges that e-government implementation programmes in developing countries face.

- a. IT Infrastructure
- b. Managerial Issues
- c. Digital Cultural
- d. Laws and Legislation
- e. Budgeting

IV. CONCLUSION

Service quality is difficult to describe since it is not a tangible aspect but rather an output or effort spent where it is distributed and served. Service quality can be described as the gap between customers' expectations and their perceptions of a service's efficiency. Customers' expectations of how a company can work are compared to customers' perceptions of service efficiency to determine service quality.

Traditional Service Quality

Definition

Traditional service quality refers to a service that is delivered face to face, allowing clients to directly see and perceive issues including familiarity, purity, and physical appearance. Various studies have attempted to classify characteristics that customers use to assess the level of service they receive. Some of these meanings are listed below:

- a. Service quality is the variance between customers' expectations and perception of a service. Service quality is the comparison between customers' expectations of how an organization ought to perform and the performance of service that customer's sense.
- b. Service quality is the variance between customers' perceptions of the obtained service and their expectations on service performance before providing the service.
- c. Service quality is the comparison between customers' expectations of the service before receiving, with their perceptions of the service after receiving.

Dimensions and Measure

The SERVQUAL and SERVPERF scales were developed as a result of the service quality study. The SERVQUAL, developed by Parasuraman, Berry, and Zeithaml in 1985, is the most widely used and widely used scale for measuring service quality. The service quality is calculated on this scale by contrasting the client's impressions of the service rendered to his expectations. It has 97 products and ten service quality dimensions. The authors later reduced the measurements to five in early 1988, with 22 items for perceptions and 22 items for expectations. Tangibles, dependability, responsiveness, assurance, and empathy are the measurements.

Cronin and Taylor created the SERVPERF scale in 1992 to measure only people's expectations of service quality. It includes the same five SERVQUAL measurements, but only 22 items relevant to customer standards.

Long and McMellon proposed five dimensions to assess service quality: tangibility, assurance, responsiveness, efficiency, and the buying process (cited in Pather and Usabuwera, 2010).

E-Services Quality

E-service became a crucial factor for organizations to retain and attract customers and achieve competitive capabilities by providing good e-services to customers. Obviously, the e-services quality became a significant and common topic for research because of e-commerce growth and advancement.

Definition

Despite numerous definitions, there is still no universal consensus in the literature on the concept of e-service quality, and there is no definition of the word that is widely agreed by researchers. This may be because e-service quality is a multidimensional term that means different things to different people in different situations.

- a. E-service quality is the degree to which a website simplifies effective and active shopping, purchase and delivery.
- b. E-service quality is the total customer assessment regarding the e-service quality excellence and delivery in the virtual marketplace.
- c. E-service quality is the customer's perceptions of the service along with recovery perceptions if problems occur.
- d. E-service quality is the consumer's assessment of the service quality during online business transactions.
- e. E-service quality is generally defined as the complete stages of a customer's interactions with internet website.

According to all of the concepts, e-service quality is the overall assessment of service quality by customers. Furthermore, successful Internet usage will expand and improve service offerings while also raising the bar in many industries.

Dimensions and Measure

The difficulty in developing a universal measure of online service quality is that it has become industry or context specific. The creation of e-service quality measures is essential because it helps to monitor and improve the performance of online businesses. The characteristics that distinguish traditional services from electronic services necessitated a necessary updating of traditional measurements, proportions, and objects. Previous studies have established various dimensions of e-service quality; however, none of these dimensions have been identified from either the customer's or the provider's perspective. The current literature on e-service quality identifies a number of e-service quality dimensions that can be used in a variety of studies. Depending on the area of research, researchers used different dimensions for e-SQ. Furthermore, a few researchers identified different dimensions for the same area. The terminology, however, is different. When discussing information usability in Web services, words like information, content, and information quality are commonly used. In most research, e-service quality dimensions are concerned with the fact that quality is determined by how well the experienced service output meets the customers' prior expectations.

Several research on the quality of e-services have been conducted in a variety of fields, including e-services, online banking, online travel agency, online public library: online retailing, web portal, and online shopping.

Long and Mc Mellon said the SERVQUAL model could be used on the Internet, but that its dimensions needed to be adjusted to make it more technologically relevant and less dependent on interpersonal interactions.

The SERVQUAL scale was updated by Lee and Line to include web site architecture, efficiency, responsiveness, and confidence as enablers of higher e-service quality. Expanded their SERVQUAL to assess the efficiency of e-services. Fulfilment, performance, availability, privacy, responsiveness, touch, and compensation were all factors in the E-S-QUAL score. WebQual 1,2,3,4 was suggested by Barnes and Vidgen. There are three dimensions to the webQual 4: knowledge consistency, usability, and interaction. SITEQUAL is a scale proposed by Yoo and Donthu that includes processing speed, ease of use, aesthetic design, and interactive responsiveness. Easy navigation, access, performance, reliability, flexibility personalization, responsiveness, security/privacy, assurance/trust, price awareness, and site aesthetics, according to Zeithaml.

Structure, features, performance, aesthetics, serviceability, reliability, storage capacity, security and system integrity, responsiveness, confidence, product/service differentiation and customization, assurance, web store policies, credibility, and empathy are among the 15 dimensions proposed by Madu and Madu.

The eTailQ e-service quality scale was proposed by Wolfenbarger and Gilly (cited in Paschaloudis and Tsourela 2014), it included website design, reliability, customer service, and security. Reliability, website design, security, fulfilment, responsiveness, personalization, content, and empathy are the eight dimensions of e-service quality proposed by Alawneh et al. present many dimensions for evaluating e-service efficiency. However, none of these scales properly assess the efficiency of E-services.

Table 1 Lists some of the most commonly used measurements as well as their dimensions.

Author	Scale	Dimensions	Domain
Zeithaml et al. (2002)	E-SQ	Access, ease of navigation, flexibility, reliability, price knowledge, aesthetics, efficiency, personalization, privacy.	E-service
Yoo and Donthu (2001)	SITEQUAL	Ease of use, design, speed, security	Online retailing
Francis and White (2002)	PIRQUAL	Functionality, ownership conditions, security.	Internet retailing
Loiacono et al. (2002)	WEBQUAL	Appeal, response time, flow, image, operations, better than alternatives, innovativeness, interactivity, trust.	Online retailing
Wolfenbarger and Gilly (2003)	e-TailQ	Web site design, privacy/security	Online retailing
Parasuraman et al. (2005)	E-S-Qual	Efficiency, availability, privacy	E-service
Bressolles (2006)	NetQual	Information, Reliability/ fulfilment, Security /privacy, Ease of use, Site design	E-service
Bauer et al. (2006)	eTransQual	Reliability, process, functionality/design	Online Shopping
Barnes and Vidgen (2002)	Webqual (4)	Usability, information quality, interaction	Diverse domains

V. RESEARCH PROPOSED DIMENSIONS

The research proposes 10 dimensions to assess the quality of e-government services based on the literature and dimensions proposed by researchers in various domains and according to the government, situation, and culture. The following are the measurements, their associated objects, and their operational definitions:

1. System Availability

It refers to the proper and legitimate technical operation of an e-government website, with all links working properly. The website is accessible 24 hours a day, seven days a week, thanks to its affordability.

2. Privacy/Security

At all levels of government, privacy and security are critical for preventing fraud and other vulnerabilities while also increasing citizen engagement. Governments collect vast amounts of data on their people, so ensuring the protection and privacy of this information is critical. Several security technologies, such as Public Key Infrastructure (PKI), biometrics, digital signature and certificate, and encryption techniques, must be implemented to achieve privacy and security.

3. Efficiency

For the quality of e-government services, efficiency is critical. In terms of citizen satisfaction, download speed and response time are essential aspects of e-government success.

4. Fulfilment

It is important that people have access to accurate and comprehensive service details and knowledge about e-services. Incorrect information may give people a negative impression. Furthermore, the ability to perform e-services with greater versatility will boost citizens' confidence in the government.

5. Reliability

One of the most important aspects of e-service quality is reliability. It is important to instill citizen trust in the government's ability to deliver on its promises.

6. Information

E-service can be described as a service process that is based on information. People need this knowledge in order to perform e-services. The information must be concise, easy to understand, relevant, and current, as any insufficient content may cause citizens to abandon the website.

7. Ease of Use

Customers' satisfaction and attitudes are heavily influenced by ease of use. The e-government website must be user-friendly, allowing people to find information quickly. The website must provide functions that assist people in quickly locating their needs and navigating the platform.

8. Website Design

The creation of a website is crucial to gaining access to the government and effectively completing e-services. Unorganized website design can cause people to become confused and leave the site. According to several reports, web site design plays a significant role in achieving customer satisfaction.

9. Interactivity

Communication with people and provision of necessary assistance is critical in instilling citizen trust in the use of e-services. Interactivity will keep people in contact all of the time and educate them about what they can do next.

10. Responsiveness

When people have concerns or issues, the government should provide timely and helpful service across communication channels. This helps people feel more at ease by using e-government services. An important relationship between responsiveness and citizen satisfaction has been discovered in several studies.

VI. CONCLUSION

E-government offers a new way for governments to increase their performance and effectiveness. It has the potential to provide significant benefits to residents and other stakeholders. Despite the fact that e-government systems face numerous challenges, including legal, technological, operational, and political instabilities, many countries continue to pursue e-government initiatives. The majority of studies have found that the quality of e-services determines whether or not e-government succeeds. As a result, governments must assess the quality of their services in order to improve regulation and performance.

However, since measuring service quality is difficult because it is focused on citizens' perceptions, different scales to assess e-government service quality have been developed based on various fields of research. Based on literature, the aim of this paper is to define its own e-service quality dimensions. These parameters can be used to build a scale for evaluating e-government services.

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