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Review

Quality assessment of service bundles for governmental one-stop portals: A literature review

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ABSTRACT

Service bundles, in the context of e-government, are used to group services together that relate to a certain citizen need. These bundles can then be presented on a governmental one-stop portal to structure the available service offerings according to citizen expectations. In order to ensure that citizens utilise the one-stop portal and comprised service bundles for future transactions, the quality of these service bundles needs to be managed and maximised accordingly. Consequently, models and tools that focus on assessing service bundle quality play an important role, when it comes to increasing or retaining usage behaviour of citizens. This study focuses on providing a rigorous and structured literature review of e-government outlets with regard to their coverage of service bundle quality and e-service quality themes. The study contributes to academia and practice by providing a framework that allows structuring and classifying existing studies relevant for the assessment of quality for government portals. Furthermore, this study provides insights into the status quo of quality models that can be used by governments to assess the quality of their service bundles. Directions for future research and limitations of the present study are provided as well.

Contents

1. Introduction

With the advent of the internet, governmental departments typically offered their services independent from other governmental entities. Similarly, each department focused on operational cost efficiency and standardisation from their own perspective, which was labelled by Ho (2002) as the traditional bureaucratic paradigm. As each department was focused on its own service provision and operational excellence, each department offered their services on separate web pages, which typically led to inconsistencies and redundancies. Not only did citizens need to know the internal structure of government to find the respective departmental website, they also needed to know the specific services they were looking for.

One-stop portals (OSPs) promised to provide a remedy for these limitations of traditional online service delivery. The underlying idea is

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similar to the single window concept, which focuses on providing a single point of access to service and information provided by different governmental entities (Wimmer, 2002).

In order to provide citizens with both an easy-to-use and comprehensive access to the services they need, OSPs have to provide customer-oriented structures of public services independent of the fragmented structure of the public administrations that deliver them. Momotko, Izdebski, Tambouris, Tarabanis, and Vintar (2007), for instance, emphasise the presentation of the public services according to the citizens' needs and even call for customisable portals. A user-friendly structure can be achieved through a bundling of offered services from the citizens' perspective. Gouscos, Laskaridis, Lioulias, Mentzas, and Georgiadis (2002) introduced bundling to the realm of online service delivery in the public sector by proposing to package service in accordance to certain life events, such as 'Buying a house' or 'Getting married'. However, services could also be bundled in accordance to demographics or topics (Kernaghan & Berardi, 2001). The objective of bundling remains the same, as it focuses on generating bundles of services that are related from a customer perspective irrespectively of the specific entity that provides the services.

Although the emergence of OSPs for e-government services has been discussed for about a decade, the target state of integrated, virtual administrations offering a single portal for all public services has been achieved by only few jurisdictions. Assessing the quality of service bundles as part of an OSP, thus, is of paramount importance to governments in order to identify their respective current status and articulate ways forward towards the targeted state. Quality is typically also used as a predecessor of behavioural intentions (Cronin, Brady, & Hult, 2000; Taylor & Baker, 1994; Zeithaml, Berry, & Parasuraman, 1996). Therefore, it can be argued that high quality service bundles have potentially a positive influence on the behavioural intentions of customers. More particularly, it can be conjectured, if service bundles are of high quality, consumers are likely to return to the portal to use the same or different bundles again.

Previous research on portal quality assessment (Kohlborn, Korthaus, Peters, & Fielt, 2013) underlined the need to conduct research in this domain due to its limited coverage in literature, but the arguably increased relevance for practice. Identified studies lacked a definition of the unit of analysis and proposed a wide range of different constructs and dimensions for assessing a portal's quality, such as accessibility, security/privacy, and usability. Furthermore, none of the identified studies derived these constructs solely empirically through interviews or focus groups, for example, but relied primarily on previous studies. The constructs are then typically used to assess the portal from the provider's point of view, e.g., they can act as checklists to identify if a certain portal offers security features.

Against this background, to extend existing studies and address the gap in the existing body of knowledge, we focus on two main research objectives in this paper:

- RO1: To show the current state of service bundle quality assessment in literature.
- RO2: To show the current state of e-service quality assessment in literature.

Although the main focus of the study is on RO1, the other objective complements the findings regarding scope — bundles package e-services in meaningful groupings.

To achieve these research objectives, first, a framework is presented to structure the literature review (Section 2). This framework can also be used to provide a structure to already existing studies and provide insights into research gaps and the status quo of the current body of knowledge. Second, Section 3 will provide details for achieving RO1 by explicating a structured literature review related to 'bundle quality'. The following section will focus on RO2. The subsequent section will then summarise, synthesise, and discuss the findings of the literature reviews, and set them into context of the overall body of knowledge, before the final section concludes the study by providing a description about the merits, limitations, and future research directions of this study.

2. Structuring the search space

Prior to conducting a literature review of existing research, the scope or unit of analysis needs to be determined. However, especially for research focusing on the quality perception of services, or service bundles for this matter, it was found that studies differ vastly regarding the scope and depth of the unit of analysis (Hofacker, Goldsmith, Bridges, & Swilley, 2007). Henceforth, to provide the reader with clear guidance, two existing structuring approaches have been combined to suit the objective of this study.

Firstly, Halaris, Magoutas, Papadomichelaki, and Mentzas (2007) provide an e-service quality model for e-government based on the analysis of 36 different quality approaches concerning public sector services, e-services in general, and, more specifically, e-government services. Their study classifies the different approaches and derives the basic factors that a "*complete quality model of e-government services*" would need. The presented model has 4 layers, each of which describes the relevant quality factors found in the literature. The layers of quality assessment, presented by Halaris et al. (2007), are built according to the way an e-government portal is supposed to be constructed.

Secondly, Leben, Kunstelj, Bohanec, and Vintar (2006) differentiate between e-services, life-events, and the portal, each having different items for measurement with regards to the impact on quality. The authors present a methodology for evaluating portals based on life events from the provider's point of view. The methodology focuses on the level of sophistication, coverage, coordination, and accessibility of a service. The measurements are then combined into an overall portal score. The study utilises that methodology to compare 12 international portals. Three multi-attribute models that are hierarchically connected were developed. On the lowest level, the quality of e-services is assessed. The middle layer addresses the quality of life events, whereas the top-level aggregates the scores to an overall portal quality score. In order to identify an overall score, all quality characteristics need to be measurable. The final score is calculated based on several business rules. The source of attributes and scales is not entirely transparent.

Through consolidation and extension of both approaches, the perspectives and aspects of quality with regards to relevant aspects of service delivery through an online portal are conceptualised in a model, depicted in Fig. 1.

The layer 'Behavioural Intentions' has been added at the top of the pyramid, as this construct is typically the ultimate item of interest, at least for governments, as it aims at measuring the extent of retention of citizens who will reuse 'the specific unit of analysis'. Consequently, the model by Halaris et al. has been extended by adding the three different units of analysis proposed by Leben et al. (2006). However, as life-events represent just one specific type of service bundle, we generalised 'life-events' as 'bundles'. Adding this dimension changes the original layer of 'Site quality' to 'Quality', since not only the portal's or website's quality can be focused on. The 'Process Performance' layer includes factors that are mainly found in quality models for traditional government services. The technical performance layer addresses, for example, site reliability, security, etc., whereas the quality layer relates to factors of the site usability and interface. The overall customer satisfaction addresses "*the overall level of quality perceived by the user against the user's expectations*" (Halaris et al., 2007, p. 393).

However, it should be noted that the relationships between the layers are neither sequential nor unidirectional. There may be causal relationships between 'Satisfaction' and 'Quality' and 'Satisfaction' and 'Technical Performance'. The different layers are simply indicators of the relation to either the user or the organisation. For example, 'Behavioural Intention' is very user-focused, whereas 'Process Performance' solely addresses the efficiency and effectiveness of processes internal