

# Analysing the Intellectual Structure of E-Service Research

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## ABSTRACT

*Despite the importance that e-service is gaining among firms and public administrations, academic research on this topic is still in its infancy (Santos, 2003), and relatively little work has been carried out. Although prior analyses have examined the rise and fall of specific theories or research topics within the e-service research field (Rust & Lemon, 2001; Rust & Kannan, 2002; Javalgi et al., 2004; Scupola et al., 2009), they have rarely focused on fundamental questions such as: what types of articles have been influential in e-service research? Does the e-service research field have different subfields, and what is the relationship, if any, among them? The purpose of this study is to answer the above-mentioned questions by using a bibliometric approach. The analysis, by identifying relevant concepts and theories that have emerged in the field of e-service, may help interested researchers identify how they can contribute to the field of e-service – by adding and enriching emerging groups or acting as bridges across groups.*

*Keywords: Ad-Hoc, E-Service, Information Technology, Internet-Based Applications, Social Science Citation Index (SSCI)*

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## INTRODUCTION

The impact of information technology (IT) on services has rapidly grown as firms worldwide have embraced emerging technologies to restructure archaic bureaucratic procedures (Moon, 2002). The increasing availability of IT has provided an opportunity for the diffusion of e-service, and many private and public organisations currently employ or are implementing service delivery through the use of modern IT (Santos, 2003; Barrett & Davidson, 2008). In

this contest, it is not surprising that researchers and academics are involved in discussing the concept of e-service. What might come as a surprise, however, are the large number of characteristics used to describe e-service and the variety of definitions of the concept (Scupola, 2008). Viewed as an emergent phenomenon, e-service calls attention to the need for new frameworks of thought as well as new applications of strategy. As e-service grows in importance in the context of competitive advantage, it is crucial that researchers stay abreast of current developments and emerging trends. Relevant data are spread across diverse fields and publications, posing a particular challenge for identifying

DOI: 10.4018/jesma.2012040102

related literature, prominent researchers and research topics. There is a substantial need for discourse and reflection regarding the very nature of the e-service field (Islam & Scupola, 2011). Whereas prior analyses have examined the rise and fall of specific theories or research topics within the e-service research field (Rust & Lemon, 2001; Rust & Kannan, 2002; Javalgi et al., 2004; Scupola et al., 2009), they have rarely focused on fundamental questions such as the following: what types of articles have been influential in e-service research? Does the e-service research field have different subfields, and what is the relationship, if any, among them?

The purpose of this study is delineate the intellectual structure of research on e-service, determine the subfields that constitute the intellectual structure and the relationships, if any, between these subfields and map them in a two-dimensional space in order to visualize spatial distances between intellectual themes by using a bibliometric approach. Bibliometrics refers to “the application of mathematics and statistical methods to books and other media of communication” (Pritchard, 1969). One of the most common bibliometric techniques is co-citation analysis, a method used to examine relationships among published research articles, which are an appropriate indicator for the numerous information sources used (Culnan, 1986) and also reveal the ideas that scientists have connected, correlated and structured (Garfield, 1979). This well-developed tool is a powerful procedure to study the structure of a scientific discipline and its main trends and has been applied to many fields of research, such as organisational behaviour (Culnan et al., 1990), strategic management (Casillas & Acedo, 2007; Nerur et al., 2008; Di Stefano et al., 2010), SME research (Ratnatunga & Romano, 1997); marketing (Heischmidt & Gordon, 1993), information systems (Culnan, 1986), macroeconomics (McCain, 1983) and consumer behaviour (Baumgartner, 2010). In applying co-citation analysis to the e-service research field, we aim at the following objectives. First, we expect to detect the main research fronts in this field of study. This allows us to outline

the connections among them and search for subfields. Second, we will try to represent the relationship and relative positions of these fronts and subfields as well their importance within the field of study. Finally, we will conduct an individualised analysis of these research fronts and a study of their contents, approaches used, and future research opportunities. In this vein, co-citation analysis provides the conceptual frameworks, analytical tools and application instance for a focused study of e-service.

Our paper is organised as follows. The following section discusses the meaning of the term e-service. The next section presents the methodology adopted for the analysis and the selection of the most interesting contributions to the field. Then our next section examines the co-citation profiles by means of multivariate statistical techniques. Some critical reflections are presented in the last section, which concludes the paper by discussing the implications for the field and proposing further applications and extensions.

## **COMPARING DIFFERENT PERSPECTIVES ON E-SERVICE**

The role of IT within the organisation has expanded considerably in recent years, enabling and supporting the interactions of both internal clients and external supply chain partners with a wide range of e-services (Rust, 2001). The use of e-service has revolutionised the way in which business services are provided and deployed (Evanschitzky et al., 2004). Moreover, the electronic dimension introduces new issues in terms of both service content and provision. The content of a service refers to the core capabilities enabled by the service. Provision refers to the business channel between the provider and the consumer of a service. In this vein, the online world has seen a new category of service emerge that is neither a substitute for, nor a complement to, any offline offering. This new conceptual category presents researchers with the need to develop and extend the theory, to investigate the new topics the theories suggest,

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