A Multidisciplinary Survey on Service

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ABSTRACT

The rising importance of service for the global economy has resulted in a significant number of efforts to define and interpret its meaning. In this vein, this article identifies and organizes related literature following a holistic approach. The authors study service from different perspectives, both business-related and technical ones, e.g., marketing, operations management, and computer science. A total of 47 definitions of service are finally reviewed. They've found out: (1) How is service perceived and defined by different disciplines and (2) What are the common service species according to related literature. The authors observe that in the business realm service falls under either of the following two categories: service as a set of value-creating activities and service as a transformation. Due to ICT revolutionizing service provision, significant work has also been conducted in order to study technology-enabled services. The authors identified different types of technology-enabled services, namely e-services, SOA services and Web services. The main contribution of this article lies in the broadness, completeness and cross-disciplinarily of the literature covered, thus being able to stand as a reference source of knowledge for service analysts, engineers and practitioners.

Keywords: *E-Service, Service, Service Science, Service System, Web Service*

1. INTRODUCTION

Services offer great prospects for growth and profitability of the global economy, hence most countries are striving to expand and improve their service sectors. Towards this direction, they have set up mechanisms to monitor service growth, profits and quality, and promote compliance to quality standards and regulations (OECD, 2010). The rapid growth of the service economy has stimulated great interest in the study of service both from a business and a technological viewpoint and services have become the source of sustainable and strategic competitive advantage.

Nowadays, the term service usually refers to composite enterprise offerings that include both products and service. Services are ubiquitous. All aspects of modern human life and activity are currently supported by services. Es-

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sentially, every individual is a both a producer of service and a consumer of service since services are provided and consumed in the context of different social and business structures, e.g., in a family, in a city and in a business/organization. We provide service in the form of labor, e.g., consultancy, cooking or house-keeping, either on a mandatory or on a voluntary basis. We consume services among others to educate and entertain ourselves, e.g., attending university lecture or watching a movie, to fulfill our everyday needs and live healthy, e.g., dining or receiving medical treatment, to fulfill our obligations towards others, e.g., paying tax, and to take care of ourselves, e.g., getting a haircut or receiving medical treatment.

In the meanwhile, ICT revolutionized traditional service provision and led to an explosive growth in the number of e-services, in particular those made available over the Web. E-services either support and enhance traditional service provision or expose and offer new innovative functionalities. Hence, e-services constitute a significant part of today's Web often referred to as the Web of Services (Schroth & Janner, 2007; Domingue et al., 2009).

Economic growth and the great potential of service were not the only drivers that shaped the interest around service. (Spohrer et al., 2010) identified a set of additional drivers including: ICT enablement, outsourcing, change in the business models, change in demographics, the nature of family life, the rising education level, the rising dependence on universities and the rising dependence on non-profit organizations.

OECD (2010) argues that the shift towards a service economy is positively influenced by the growth of strategic business services, i.e., services including computer software and information processing, research and development, marketing, business organisation and human resource development. The main drivers according to OECD are: outsourcing, the growth of smaller production firms which use external services to supplement their internal resources, the need for greater flexibility within firms, the rise of knowledge-based economies, and the increased specialization of labor.

The drivers identified both by Spohrer et al. and OECD reflect the current state of play in the service economy and justify the increased need to study and explore service following a holistic, interdisciplinary approach. Although conducted with a ten-year difference between them, the two studies converge on the importance role of the knowledge-intensive nature of today's service operations, e.g., in terms of rising education requirements, labor specialization and outsourcing, in the growth of the service economy.

Since the study of service grew extensively in importance, service science was established as a new, interdisciplinary science aiming at providing a solid understanding of services and service phenomena and contributing to service innovation (Chesbrough & Spohrer 2006; Spohrer et al., 2010). By definition, service science should not be perceived as a basic science, but as a multidisciplinary construct that aims to bring together and integrate a number of disciplines, such as computer science, cognitive science, economics, organizational behavior, human resources management, marketing and operations research, in order to analyze, model, manage and interpret complex service phenomena. The need to conceptualize service science has shaped a new paradigm termed service-dominant (S-D) logic (Vargo & Lusch, 2004, 2008). S-D logic is a conceptual framework that is recognized as the "philosophical foundation of service science." It shifts the interest, the analysis and the unit of exchange from tangible, static resources, i.e., products, to intangible, dynamic resources, i.e., services.

This article complements related efforts, e.g., Mora et al. (2008) by introducing a cross-disciplinary approach for collecting and organizing the literature on the definition of service. Developing such a cross-disciplinary understanding of service is required in order for the service science community to develop and adopt a common view on service.