



**Roskilde  
University**

## **E-service research trends in the domain of e-Government**

A Contemporary Study

Scupola, Ada; Islam, M. Sirajul

*Published in:*  
International Journal of e-Services and Mobile Applications

*DOI:*  
[10.4018/jesma.2011010103](https://doi.org/10.4018/jesma.2011010103)

*Publication date:*  
2011

*Citation for published version (APA):*  
Scupola, A., & Islam, M. S. (2011). E-service research trends in the domain of e-Government: A Contemporary Study. *International Journal of e-Services and Mobile Applications*, 3(1), 39-56 .  
<https://doi.org/10.4018/jesma.2011010103>

### **General rights**

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain.
- You may freely distribute the URL identifying the publication in the public portal.

### **Take down policy**

If you believe that this document breaches copyright please contact [rucforsk@kb.dk](mailto:rucforsk@kb.dk) providing details, and we will remove access to the work immediately and investigate your claim.

# INTERNATIONAL JOURNAL OF E-SERVICES AND MOBILE APPLICATIONS

January-March 2011, Vol. 3, No. 1

## Table of Contents

### EDITORIAL PREFACE

- i    *Ada Scupola, Roskilde University, Denmark*

### RESEARCH ARTICLES

- 1    **The Role of Consumer Innovativeness and Trust for Adopting Internet Phone Services**  
*JungKun Park, University of Houston, USA*  
*Te-Lin Chung, Purdue University, USA*  
*Won-Moo Hur, Pukyung National University, South Korea*
- 17   **Proposing a Knowledge Amphora Model for Transition Towards Mobile Government**  
*Tunc D. Medeni, Turksat, Turkey*  
*İ. Tolga Medeni, Turksat, Turkey*  
*Asim Balci, Turksat, Turkey*
- 39   **E-Service Research Trends in the Domain of E-Government: A Contemporary Study**  
*M. Sirajul Islam, Örebro University, Sweden*  
*Ada Scupola, Roskilde University, Denmark*
- 57   **Intelligent Store Agent for Mobile Shopping**  
*Ryan Anthony Brown, University of West Indies, Jamaica*  
*Suresh Sankaranarayanan, University of West Indies, Jamaica*

# E-Service Research Trends in the Domain of E-Government: A Contemporary Study

*M. Sirajul Islam, Örebro University, Sweden*

*Ada Scupola, Roskilde University, Denmark*

---

## ABSTRACT

*Government 'e-service' as a subfield of the e-government domain has been gaining attention to practitioners and academicians alike due to the growing use of information and communication technologies at the individual, organizational, and societal levels. This paper conducts a thorough literature review to examine the e-service research trends during the period between 2005 and 2009 mostly in terms of research methods, theoretical models, and frameworks employed as well as type of research questions. The results show that there has been a good amount of papers focusing on 'e-Service' within the field of e-government with a good combination of research methods and theories. In particular, findings show that technology acceptance, evaluation and system architecture are the most common themes, which circa half of the studies surveyed focus on the organizational perspective and that the most employed research methods are case studies and surveys, often with a mix of both types of methodologies.*

**Keywords:** *Contemporary Research, E-Government, E-Service, Information Systems, Information Technology, Public Sector*

---

## INTRODUCTION

E-services, intended as services provided through the use of information and communication technologies (ICTs) are a recent technological innovation, which is designed to provide real-time, anyplace, 24/7 accessibility and high quality value added services at individual, organizational and societal levels. Until now, however, in the literature there has

not been a universally accepted definition of e-services (e.g., Scupola et al., 2009).

Although the term 'e-service' is generally used in relation to e-services provided in different sectors among which the private and public sectors (e.g., Scupola et al., 2009), in this paper we refer only to government e-services, that is services provided by the government to the citizens through the use of information and Communication Technologies. For the purpose of this paper, we define e-services within the e-government domain as "the electronic delivery of government information, programs,

DOI: 10.4018/jesma.2011010103

and services often (but not exclusively) over the Internet” (Dawes, 2002).

In recent years, e-government has become both an important research domain especially in the context of public policy and has gained strategic importance in public sector modernization (Wimmer et al., 2008). However, despite the growing demand for accessing government services through modern information and communication technologies, Wimmer et al. (2008) reported that there has been a deficiency in e-government research concerning the future government and ICT with specific focus on e-services. This study has been the main motivation to investigate the status quo of recent e-service research within the e-government domain, thus leading to the main research question of this paper: What are the methodological and theoretical trends of ‘e-service’ research within the e-government research domain in the last few years? In order to investigate the research question a thorough literature review of circa 150 papers (Webster & Watson, 2002) published over the period 2005-2009 has been conducted. The papers have been mainly analyzed according to the types of research question investigated; the theories used as well as the unit of analysis (perspective) and research methods employed (Webster & Watson, 2002). The major contribution of this article lies therefore in providing a thorough and updated overview of e-services research within the e-government domain over the last few years.

The paper is structured as follows. In this introduction, the background, motivation and research question of the study have been provided. The following section describes the research method with special focus on the search process and criteria for information source selection, data collection and analysis. The next section presents and discusses the results, while the last section provides some concluding remarks and suggestions for future research.

## RESEARCH METHODOLOGY

### Selection of Papers

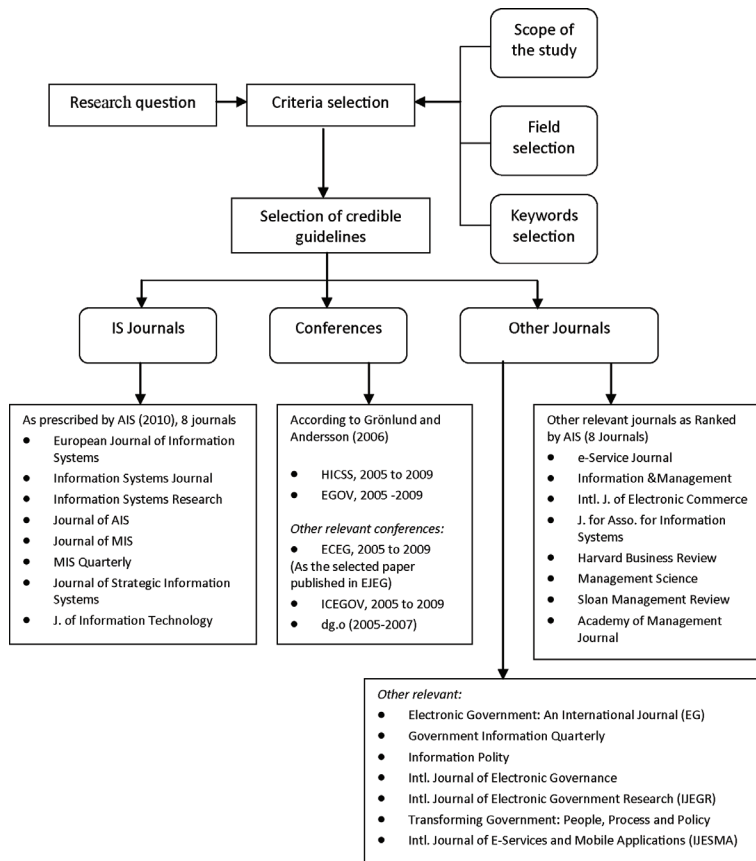
This paper is based on a systematic literature survey of papers published within the period between 2005 and 2009. As figure 1 shows, in order to make the research process rigorous, thus increasing the validity of the study, Webster and Watson (2002) guidelines for literature review and Grönlund and Andersson (2006) guidelines for paper selection and analysis have been adopted. According to Webster and Watson (2002, p. 4), “the major contributions are likely to be in the leading journals. It makes sense, therefore, to start with them. .... You should also examine selected conference proceedings, especially those with a reputation for quality”. In order to find the leading journals, the guidelines of AIS’s ‘Senior Scholars’ Basket of Journals, as listed in Figure 1 had been explored. This search method also helped to frame the boundary of the literature review and to limit the content of the analysis.

Furthermore, other relevant journals within the e-services field (See Figure 1) were also selected. Being e-services a relatively young field of research, it was assumed that newer journals within the field contained also relevant and interesting research. Finally for identifying the conferences related to e-government, Grönlund and Andersson’s (2006) suggestions have been mostly followed (See Figure 1), but also some other relevant conferences have been included.

### Search Procedure

Webster and Watson (2002, p. 4) suggest that “a systematic search should ensure that you accumulate a relatively complete census of relevant literature”. Here the literature search has been conducted through an iterative process mainly based on the analysis of the contexts as advised by Walsham (1995, p. 76). In particular, the steps suggested by Webster and Watson (2002) were

Figure 1. The Information source selection model



followed, which can be shortly summarized as follows: Locating papers published in leading journals initially from major journal database (e.g., ABI/Inform); Examining relevant reputed conference proceedings; Going backward by reviewing the citations for the articles identified. Going forward to other relevant sources (e.g., Web of Science); Discussing the scope of the research with colleagues or friends interested in the subject matter either prior to or after the completion of the paper; Developing a concept Matrix which may be augmented with Units of Analysis. To conduct the search, four major keywords (e-service, electronic service, e-government, public administration) were used alternatively or sequentially based on the situation. This technique was used both to narrow

down the number of papers and to find and select the most relevant papers for the study.

## Data Collection

Refining the data was the most critical part of the data collection process as inappropriate data would mislead the research outcome. Though initially 16 journals (Figure 1) from the AIS's 'Senior Scholars' basket were used, only 10 journals had come up with relevant contents. For example, searching with the keyword 'e-service' in 'e-Service Journal' had produced 167 matches. However, only 4 of them were initially found relevant to the domain of e-government which had been later reduced to 2 during the sorting of the content according to the study's

research objectives. Furthermore for example, Harvard Business Review did not provide any result on e-services and e-government in the given time period.

The data analysis process was based on a database especially developed for this paper by one of the authors as discussed by Grönlund and Andersson (2006). This database helped to analyze the data according to the study's research question and provided flexibility in generating partial reports in relation to any desired criteria. The fields of this database were filled with themes emerging from the research methods, research questions, theoretical frameworks and models and unit of analysis of the papers selected. In the analysis of the data, a number of tables and matrices were built and presented (e.g., Webster & Watson, 2002). As search stopping criteria, a systematic saturation point of data collection was used.

This data collection method has initially produced about 150 articles, which have finally been reduced to 95. Please see the list of selected conferences and journals with corresponding number of papers in Appendix 1.

## RESULTS

As it is showed in Table 1, most of the papers analyzed focus on assessing the needs on the demand side of e-government services such as e-service acceptance, trust in e-services, project management and the crucial factors for e-services quality.

In particular, the theme 'acceptance' is particularly dominating in e-service research, followed by evaluation, architecture and trust (Table 1). Adoption of e-services (AlAwadhi & Morris, 2007; Tung & Rieck, 2005; Lee & Lei, 2007; Arendsen et al., 2008, Carter & Schaupp, 2009), barriers to access (Vassilakis et al., 2005) and e-tax filing (Fu et al., 2006; Hung et al., 2006) are some of major research sub-themes that are mainly covered under the 'acceptance' research theme. Project management, channel management and benchmarking are some of the new themes that emerged in 2009.

In addition, Tang (2006) distinguished three perspectives research can focus on: individual, organizational or society.

As Table 2 shows, 'e-service' research mainly focuses on the organizational perspective (53%), followed by the individual (27%) and societal (20%) perspectives. This trend is more evident in the papers published in the conferences than journals. As shown in table 2 in fact, 27% conference papers focus on the organizational perspective. This percentage is more than three times higher than the conference papers focusing on the individual perspective (8%). However this trend is quite balanced in case of journal publications with 26% of the papers focusing on the organizational perspective and 19% on the individual perspectives.

## RESEARCH APPROACHES

In regard to the types of research approaches, the study found that, 'descriptive research' (45%) and 'theory generation' (40%) type of research are the most dominating ones, followed by the "theory utilization" (15%) approach (See Table 3 and Table 4). While the 'descriptive' approach explains the context and phenomena of an entity, the theory generation approach is mainly focusing on either developing new or refining existing theories. The latter type aims both at explaining certain phenomena and at reducing the research gap not adequately addressed by previous research. Finally, the studies that fall within the category "theory utilization" are mainly studies that examine the applicability of certain theories in a different setting.

As shown in Tables 5 and Table 6, regarding the research methodologies used, the case study and survey are significantly dominating the e-service research field. In fact, they together represent more than 85% of the prevailing research methods employed in the sample of papers analyzed here. It also appears that papers published in journals rely more on the case-study method in comparison to papers published in conference proceedings. However in many instances it has been found that the use of various forms of 'survey' methods

*Table 1. E-service themes found in the period 2005-2009*

Themes/keywords	2005	2006	2007	2008	2009	Total
Acceptance	4	2	4	2	3	15
Evaluation		3	4	1	7	15
Architecture	1		2	6	2	11
Trust	1		1	2	1	5
Challenges & Success factors	1	1		1	1	4
Service quality			3	1		4
Impact assessment		1		2	1	4
Need assessment		1	1	2		4
E-service (general)		1	1	1		3
Stakeholder			2		1	3
Strategies				1	2	3
Benchmarking					2	2
Effectiveness	2					2
Usability	1	1				2
Participation				2		2
Accessibility					1	1
Administrative burden			1			1
Availability				1		1
Business model			1			1
Channel management					1	1
Collaboration		1				1
Cross-agency integration			1			1
Democracy	1					1
Digital divide			1			1
Dynamic taxonomies			1			1
Infrastructure	1					1
Privacy			1			1
Project management					1	1
Return on Investment		1				1
Usefulness			1			1
Values				1		1
<b>Total</b>	<b>12</b>	<b>12</b>	<b>25</b>	<b>23</b>	<b>23</b>	<b>95 papers</b>

*Table 2. Perspectives of e-service research (n=95)*

Venues	Individual	Organization	Society
Conference	8%	27%	12%
Journals	19%	26%	8%
<b>Total</b>	27%	53%	20%

*Table 3. Research approaches (n=95)*

Venues	Descriptive	Theory generation	Theory utilization
Conference	19%	17%	12%
Journals	26%	23%	3%
<b>Total</b>	45%	40%	15%

*Table 4. Types of research approaches and corresponding studies*

Research Approach	Authors
Descriptive	Grönlund et al. (2007); Salhofer et al. (2008); Cullen & Reilly (2007); Anthopoulos et al. (2006); Vassilakis et al. (2005); Zhenyu (2007); Chen et al. (2009); Gibson et al. (2009); Pelly & Sia (2007); Horan et al. (2006); Melin & Axelsson (2009); Lourdes et al. (2005); Pardhasaradhi & Ahmed (2007); Kaliannan et al. (2009); Chan & Pan (2008); Wendy & Leela (2007); Buccella & Cechich (2009); Balci et al. (2008); Janssen & Feenstra (2008); Roy, J. (2009); Kaaya, J. (2009); Asgarkhani (2005); Arendsen & Hedde (2009); Mitra, A. (2005); Sarikas & Weerakkody (2007); Yang & Paul (2005); Janssen & Klievink (2009); Ask et al. (2008); Kariofillis-Christos & Economides (2009); Lee et al. (2008); Stoica & Ilas (2009); Islam & Grönlund (2007); Anthopoulos et al. (2007); Deursen (2007); Hyp-ponen et al. (2005); Kunstelj et al. (2007); Charalabidis et al. (2006); Connolly (2007); Carratta et al. (2006); Tan et al. (2005); Furuli & Kongsrud (2007); Scupola et al. (2009); Axelsson & Melin (2007)
Theory generating	Anastasios & Vasileios (2008); Sehl & Faouzi (2009); Luka (2009); Verdegem & Verleyea (2009); Gouscosa et al. (2007); Verdegem & Hauttekeete (2008); Gasmelseid (2007); Hu et al. (2008); Golubeva & Merkuryeva. (2006); Janssen & Kuk (2007); Sahu & Gupta (2007); Carter & Schaupp (2009); Lepouras et al. (2008); Leben et al. (2006); Park (2008); Papadomichelaki & Mentzas (2009); Corradini et al. (2008); Velsen et al. (2008); Yu (2008); Axelsson & Melin (2008); Andersen & Medaglia (2008); Papadomichelaki et al. (2006); Wang et al. (2005); Belanger & Carter (2006); Benjamin & Whitley (2009); Boy-er-Wright & Kottemann (2008); Pinho & Macedo (2008); Gallant et al. (2007); Shachaf & Oltmann (2007); Tung & Rieck (2005); Belanger & Carter (2008); Pentafronimos et al. (2008); Lee & Lei (2007); Carter & Belanger (2005); Chen et al. (2006); Mike & Anthony (2007); Kanat & Özkan (2009); Welch & Pandey (2007)
Theory utilization	Sacco, G. M. (2007); Fu et al. (2006); Kraussl et al. (2009); Klischewski & Ukena (2008); McLeod & Pippin (2009); Schaupp et al. (2009); AlAwadhi & Morris (2008); Arendsen et al. (2008); Chee-Wee et al. (2008); Magoutas et al. (2007); Phang et al. (2005); Magoutas & Mentzas (2009); Hung et al. (2006);

*Table 5. Research methods (n=95)*

Venues	Case study	Survey	Interpretive
Conference	18%	24%	5%
Journals	31%	14%	8%
<b>Total</b>	49%	38%	13%

*Table 6. Types of research methods and corresponding studies*

Research Methods	Authors
Case Study	Chen et al. (2006) ; Lee et al. (2008) ; Asgarkhani (2005); Connolly (2007); Furuli & Kong-srud (2007); Mike & Anthony (2007); Kraussl et al. (2009); Chen et al. (2009); Sarikas & Weerakkody (2007); Benjamin & Whitley (2009); Grönlund et al. (2007); Pardhasaradhi & Ahmed (2007); Balci et al. (2008); Buccella & Cechich (2009); Chan & Pan (2008); Fu et al. (2006); Roy, J. (2009); Sehl & Faouzi (2009); Luka (2009); Verdegem & Verleyea (2009); Gouscosa et al. (2007); Golubeva & Merkuryeva. (2006); Lepouras et al. (2008); Kanat & Özkan (2009); Kaliannan et al. (2009); Pinho & Macedo (2008); Kaaya, J. (2009); Janssen & Kuk (2007); Ask et al. (2008); Janssen & Klievink (2009); Melin & Axelsson (2009); Pelly & Sia (2007); Hu et al. (2008); Tan et al. (2005); Corradini et al. (2008); Velsen et al. (2008); Islam & Grönlund (2007); Kunstelj et al. (2007); Charalabidis et al. (2006); Carratta et al (2006); Wang et al. (2005); Phang et al. (2005); Hypponen et al. (2005); Klischewski & Ukena (2008); Janssen & Feenstra (2008)
Survey	Hung et al. (2006); Yu (2008); Carter & Belanger (2005); Gallant et al. (2007); Leben et al. (2006); Anthopoulos et al. (2007); Boyer-Wright & Kottemann (2008); McLeod & Pippin (2009); Deursen (2007); Papadomichelaki & Mentzas (2009); Arendsen et al. (2008); Kariofillis-Christos & Economides (2009); Arendsen & Hedde (2009); Anastasios & Vasileios (2008); Yang & Paul (2005); Chee-Wee et al. (2008); Magoutas & Mentzas (2009); Welch & Pandey (2007); Belanger & Carter (2006); Park (2008); AlAwadhi & Morris (2008); Gibson et al. (2009); Schaupp et al. (2009); Lee & Lei (2007); Horan et al. (2006); Axelsson & Melin (2008) ;Tung & Rieck (2005); Andersen & Medaglia (2008); Cullen & Reilly (2007); Stoica & Ilas (2009); Axelsson & Melin (2007); Sahu & Gupta (2007); Carter & Schaupp (2009); Shachaf & Oltmann (2007); Belanger & Carter (2008); Vassilakis, et al. (2005)
Interpretive	Mitra, A. (2005); Lourdes et al. (2005); Gasmelseid (2007); Papadomichelaki et al. (2006); Wendy & Leela (2007); Scupola et al. (2009); Salhofer et al. (2008); Zhenyu (2007); Magoutas et al. (2007) ; Verdegem & Hautekeete (2008); Pentafronimos et al. (2008) ; Anthopoulos et al. (2006) ; Sacco, G. M. (2007)

is mixed with other methods, where the use of 'case study' is mostly common.

## TYPE OF RESEARCH QUESTIONS

To conduct an analysis of the concepts contained in the surveyed papers, the research questions of each paper have been grouped based on four thematic categories – explorative, develop, evaluative and causal. These

categories have been empirically determined based on the frequency of occurrences of similar types of research questions. The findings show (Table 7 and Table 8) that most of the research questions are explorative in nature followed by research questions trying to develop new research frameworks or ideas. Explorative research questions mainly investigate issues like status and functionalities (Zhenyu, 2007), adoption perception and process (Arendsen et al., 2009; Tung et al., 2005; Belanger et al.,

2008; Papadomichelaki, 2006), identification of barriers and success factors (Vassilakis et al., 2005; Islam & Grönlund, 2007), research gaps (Phang et al., 2005), and administrative literacy requirements (e.g., Grönlund et al., 2007), and understanding and explaining of new insights about certain practices, relationship or perceptions (Axelsson & Melin, 2007; Fu et al., 2006; Hypponen et al., 2005; Chan & Pan, 2008).

The following research questions or objectives are more or less common in such category: "To investigate the real driving forces concerning the 'demand' side of e-government and the take-up of public e-services" (Kunstelj et al., 2007); "Which factors influence the adoption of high impact governmental e-services" (Arendsen et al., 2008); "Why did the system fail, and what, if anything can be done to improve it" (Islam and Grönlund, 2007); "Understanding of citizens' needs regarding public e-services" (Axelsson & Melin, 2007); "Analyses the Finnish electronic prescription system against the ramifications given for a national infrastructure" (Hypponen et al., 2005); and "Elaboration on e-government systems implementation with a focus on user engagement" (Chan & Pan, 2008).

On the other hand, the main objectives of what here is called 'develop' type of research are either to develop or refine a new or existing theory, model or framework that can be used subsequently to explain a phenomenon under investigation. Examples include: "To develop a constructive, value-based approach to aid the realization of e-customs initiatives in real-life setting" (Kraussl et al. 2009); "Proposes a cost-benefit model for evaluating front-end e-government services" (Andersen & Medaglia, 2008).

The evaluative research approach generally tries to assess the impacts and expected returns on implemented electronic services in various contexts. Examples include: "Reviews the existing literature on public return on investment (ROI) and presents an assessment conducted on an Italian circuit of eGovernment services" (Carratta et al., 2006); "To evaluate the level of satisfaction derived by citizens while utilizing government-led ATIS services for trip planning" (Horan et al., 2006).

'Causal' research studies explore and experiment with the causal relationships and the post and pre-implementation effects of e-services on individual, organizational and societal perspectives. In this case, 'e-service' is considered an independent variable, while dependent variables are the associated outcomes or likely effects. The following are some examples of research questions: "Do e-services provide equitable online services to the public?" (Shachaf & Oltmann, 2007); "Do High Quality Websites matter for building Citizen Trust towards E-Government Services?" (Chee-Wee et al. 2008); "Explores the potential effects of the digital divide on e-government by surveying a diverse group of citizens to identify the demographic characteristics that impact use of e-government" (Belanger & Carter, 2006).

As in most of the IS research, also the research in government e-services mainly uses theories and frameworks with origins in other disciplines such as marketing, behavioral or social sciences. In fact, as shown in Table 8, although the analytical foundation of around 85% of the papers is based on some models or frameworks, 40% of these rely on self-designed research frameworks, many of which are extensions of existing theories. In addition, around

*Table 7. Type of research addressed in the papers (n= 95)*

Venues	Explorative	Develop	Evaluative	Causal
Conference	19%	19%	6%	3%
Journals	25%	7%	13%	13%
<b>Total</b>	44%	26%	19%	16%

Table 8. Theories and models used in different research approaches

RQ	Theories/models	Authors
Explorative	Self-designed models	Anthopoulos et al. (2007); Furuli & Kongsrud (2007); Golubeva & Merkurieva (2006); Hu et al. (2008); Papadomichelaki et al. (2006); Kunstelj et al. (2007); Deursen (2007); Arendsen et al. (2008); McLeod & Pippin (2009); Welch & Pandey (2007); Belanger & Carter (2008); Verdegem & Hautekeete (2008); Janssen & Kuk (2007); Chen et al. (2009); Pelly & Sia (2007)
	e-Government stage model	Stoica & Ilas (2009); Zhenyu (2007); Sarikas & Weerakkody (2007)
	Technology Acceptance models (TAM, TPB, UTAUT)	Lee & Lei (2007); Phang et al. (2005); Tung & Rieck (2005); Kanat & Özkan (2009); Fu et al. (2006); AlAwadhi & Morris (2008); Gallant et al. (2007)
	Intermediation theory	Janssen & Klievink (2009)
	Users perspective problem solving process	Grönlund et al. (2007)
	Stakeholder theory	Islam & Grönlund (2007); Chan & Pan (2008)
	Dynamic taxonomies	Sacco, G. M. (2007)
	Web information system's implementation plan	Anthopoulos et al. (2006)
	Descriptive (no model followed)	Scupola et al. (2009); Axelsson & Melin (2007); Cullen & Reilly (2007); Kaliannan et al. (2009); Kaaya, J. (2009); Arendsen & Hedde (2009); Ask et al. (2008); Tan et al. (2005); Mitra, A. (2005); Yang & Paul (2005); Gibson et al. (2009)
Develop	Self-designed models	Charalabidis et al. (2006); Buccella & Cechich (2009); Carter & Schaupp (2009); Gasmelseid (2007); Andersen & Medaglia (2008); Janssen & Feenstra (2008); Wang et al. (2005); Yu (2008); Velsen et al. (2008); Sehl & Faouzi (2009); Corradini et al. (2008); Boyer-Wright & Kottmann (2008); Chen et al. (2006); Kraussl et al. (2009); Axelsson & Melin (2008); Mike & Anthony (2007); Mike & Anthony (2007);
	Systems development life cycle	Melin & Axelsson (2009)
	Activity theory	Klischewski & Ukena (2008)
	Technology Acceptance models (TAM, TPB, UTAUT)	Carter & Belanger (2005); Schaupp et al. (2009)
	Value Theory (Value-Focused Thinking Approach)	Park (2008)
	Government Enterprise Architecture – Public Administration (GEA-PA) service model	Salhofer et al. (2008)
	Descriptive (no model followed)	Balci et al. (2008)

*continued on following page*

Table 8. continued

RQ	Theories/models	Authors
Evaluative	Self-designed models	Leben et al. (2006); Gouscosa et al. (2007); Pentafronimos et al. (2008); Horan et al. (2006) ; Anastasios & Vasileios (2008)
	e-GovQual/SERVQUAL/QeGS	Papadomichelaki & Mentzas (2009) ; Kariofillis-Christos & Economides (2009); Connolly (2007); Magoutas et al. (2007); Magoutas & Mentzas (2009)
	The reference model	Lee at el. (2008)
	Three-phase evaluation model	Hypponen et al. (2005)
	Technology Acceptance model	Verdegem & Verleyea (2009)
	Martin Heidegger's etymological enquiry	Benjamin & Whitley (2009)
	Service maturity and delivery maturity	Lourdes et al. (2005)
	XML Model	Vassilakis, et al. (2005)
	Descriptive (no model followed)	Roy, J. (2009); Pardhasaradhi & Ahmed (2007); Carratta et al (2006); Asgarkhani (2005)
Causal	Self-designed models	Pinho & Macedo (2008), Belanger & Carter (2006); Sahu & Gupta (2007); Lepouras et al. (2008)
	e-GovQual/SERVQUAL	Shachaf & Oltmann (2007)Chee-Wee et al. (2008)
	Stakeholder theory	Luka (2009)
	Technology Acceptance models	Hung et al. (2006)
	Enid Mumford's concepts	Wendy & Leela (2007)

17 per cent of the papers are fully descriptive and the arguments are validated mainly by empirical evidences or literature reviews. For example, the Technology Acceptance Model (TAM) (Davis et al., 1989), which explains the factors influencing the behavior of an individual to accept and use a new technology, is the most influential model in the studies of technology acceptance (Gefen & Straub, 2000) also in the case of e-service. Other technology acceptance theories, such as the Theory of Planned Behavior (TPB) (Ajzen, 1985) and Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003) are also frequent in the study of e-service adoption. Finally, regarding e-service quality assessment, the service quality model – SERVQUAL, which originated from strategic business management domain and 'e-Government service quality model (e-GovQual)' in particular have been found to be quite used.

## CONCLUDING DISCUSSION

This paper has conducted a literature review to examine the e-service research trends during the period between 2005 and 2009 mostly in terms of research methods, theoretical models and frameworks employed as well as the type of research questions and perspectives of the research. The results have shown that the number of publications focusing on 'e-service' within the e-Government research domain seems to have increased since 2005 with a peak in 2007. In particular the findings show that technology acceptance, evaluation and system architecture are the most common themes. Service or technology adoption and acceptance, quality assessment, stakeholder analysis and trust are the main subjects investigated. As for adoption and acceptance studies, TAM (Davis et al., 1989) is the most frequently used model. Furthermore,

among the various quality assessment models, SERVQUAL is widely used in the studies dealing with the e-services quality assessment. Most of the studies focus on the 'organizational' perspective, while the research approaches used are mainly descriptive or intend to generate new theory. However, given the growing use of government e-services in practice, there is a lot of unexplored potential for e-services research in the future especially addressing issues such as eGov 2.0, data security and data privacy. As the e-service topic is relatively new in the domain of e-government and IS in particular, the study found a lack of established models or theories in the field. In fact, most of the papers analyzed use self-designed models which are derived from or are combination of well known theories taken from other disciplines, such as service marketing or stakeholder theories. Some papers are mainly theoretical and are based on literature reviews (as it is the case for this study as well) and explain the e-service phenomenon in a descriptive way. In fact, regarding the type of research approach, the interpretive research is highly dominating. Regarding the research methods, this study found that case study and survey are more or less equally dominating research methods and in most cases both is used together with support from brief literature reviews.

Overall it can be concluded that within the e-government research domain, there has been over the period 2005-2009 a good amount of studies particularly addressing e-services, with a reasonable combination of research approaches, theories and methods.

## LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

It has to be acknowledged that the above findings are indicative in nature as they are only based on a limited amount of papers and on a relatively short period of time. This is indicative in the sense that there might be more journal and

conference papers that have been missed here due to the search criteria adopted as discussed in the method section. Nevertheless, the findings of this study help to provide a picture about the contemporary research trend in 'e-service' research within the e-government domain over the last 5 years.

Finally, regarding future research it is suggested here that more attention should be paid to the individual and societal perspectives of e-service research. More focus should also be put to emerging issues, such as eGov 2.0, data security and data privacy. These considerations are made in light of the spectacular advancement of information and communication technologies and their equal diffusion in all three levels: the individual, organizational and societal. The limitation of this study as discussed above, in turn, calls for future research focusing on more papers with extended span of time.

## REFERENCES

- AIS - Association for Information Systems. (n.d.). *Senior Scholars' Basket of Journals*. Retrieved from <http://home.aisnet.org/displaycommon.cfm?an=1&subarticlenbr=346>
- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In Kuhl, J., & Beckmann, J. (Eds.), *Action control: From cognition to behavior*. Berlin: Springer Verlag.
- AlAwadhi, S., & Morris, A. (2008). The Use of the UTAUT Model in the Adoption of E-Government Services in Kuwait. In *Proceedings of the 41st Annual Hawaii International Conference on System Sciences (HICSS'08)* (p. 219).
- Anastasios, E., & Vasileios, T. (2008). Evaluating tax sites: an evaluation framework and its application. *Electronic Government*, 5(3), 321-343. doi:10.1504/EG.2008.018878
- Andersen, K. V., & Medaglia, R. (2008). e-Government Front-End Services: Administrative and Citizen Cost-Benefits. In *Proceedings of the 7th International Conference (EGOV 2008, TORINO, ITALY)* (Vol. 5184).

- Anthopoulos, L., Siozos, P., Nanopoulos, A., & Tsoukalas, I. A. (2006). The Bottom-up Design of e-Government: A Development Methodology based on a Collaboration Environment. *e-Service Journal*, 4(3).
- Anthopoulos, L. G., Siozosa, P., & Tsoukalas, I. A. (2007). Applying participatory design and collaboration in digital public services for discovering and re-designing e-Government services. *Government Information Quarterly*, 24(2), 353–376. doi:10.1016/j.giq.2006.07.018
- Arendsen, R., Engers, T. M. V., & Schurink, W. (2008). Adoption of High Impact Governmental eServices: Seduce or Enforce? In *Proceedings of the 7th International Conference (EGOV 2008)*, Torino, Italy (Vol. 5184).
- Arendsen, R., & Hedde, M. Jt. (2009). On the Origin of Intermediary E-Government Services. In *Proceedings of the 8th International Conference (EGOV 2009)*, Linz, Austria (Vol. 5693).
- Asgarkhani, M. (2005). The Effectiveness of e-Service in Local Government: A Case Study. *Electronic Journal of E-Government*, 3(4), 157–166.
- Ask, A., Hatakka, M., & Grönlund, Å. (2008). The Örebro City Citizen-Oriented E-Government Strategy. [IJEGR]. *International Journal of Electronic Government Research*, 4(4), 69–88.
- Axelsson, K., & Melin, U. (2007). Talking to, Not About, Citizens – Experiences of Focus Groups in Public E-Service Development. In *Proceedings of the 6th International Conference (EGOV 2007)*, Regensburg, Germany (Vol. 4656).
- Axelsson, K., & Melin, U. (2008). Citizen Participation and Involvement in eGovernment Projects: An Emergent Framework. In *Proceedings of the 7th International Conference (EGOV 2008)*, Torino, Italy (Vol. 5184).
- Balci, A., Kumaş, E., Taşdelen, H., Süngü, E., Medeni, T., & Medeni, T. D. (2008). Development and implementation of e-government services in Turkey: issues of standardization, inclusion, citizen and satisfaction. In *Proceedings of the ICEGOV 2008* (Vol. 351, pp. 337-342).
- Belanger, F., & Carter, L. (2006). The Effects of the Digital Divide on E-Government: An Empirical Evaluation. In *Proceedings of the 39th Annual Hawaii International Conference on System Sciences (HICSS'06)*.
- Belanger, F., & Carter, L. (2008). Trust and risk in e-government adoption. *The Journal of Strategic Information Systems*, 17(2). doi:10.1016/j.jsis.2007.12.002
- Benjamin, M., & Whitley, E. A. (2009). Critically classifying: UK e-government website benchmarking and the recasting of the citizen as customer. *Information Systems Journal*, 19(2).
- Boyer-Wright, K. M., & Kottemann, J. E. (2008). High-Level Factors Affecting Global Availability of Online Government Services. In *Proceedings of the 41st Annual Hawaii International Conference on System Sciences (HICSS'08)*.
- Buccella, A., & Cechich, A. (2009). A semantic-based architecture for supporting geographic e-services. In *Proceedings of the 3rd International Conference on Theory and Practice of Electronic Governance (ICEGOV2009)* (Vol. 322, pp. 27-35).
- Carratta, T., Dadayan, L., & Ferro, E. (2006). ROI Analysis in e-Government Assessment Trials: The Case of Sistema Piemonte'. In *Proceedings of the 5th International Conference (EGOV 2006)*, Krakow, Poland (Vol. 4084).
- Carter, L., & Belanger, F. (2005). The utilization of e-government services: citizen trust, innovation and acceptance factors. *Information Systems Journal*, 15(1). doi:10.1111/j.1365-2575.2005.00183.x
- Carter, L., & Schaupp, L. C. (2009). Relating Acceptance and Optimism to E-File Adoption. *International Journal of Electronic Government Research*, 5(3), 62–74.
- Chan, C. M. L., & Pan, S. L. (2008). User engagement in e-government systems implementation: A comparative case study of two Singaporean e-government initiatives. *The Journal of Strategic Information Systems*, 17(2). doi:10.1016/j.jsis.2007.12.003
- Charalabidis, Y., Askounis, D., Gionis, G., & Lampathaki, F. (2006). Organizing Municipal e-Government Systems: A Multi-facet Taxonomy of e-Services for Citizens and Businesses. In *Proceedings of the 5th International Conference (EGOV 2006)*, Krakow, Poland (Vol. 4084).
- Chee-Wee, T., Benbasat, I., & Cenfetelli, R. T. (2008). Building Citizen Trust towards E-Government Services: Do High Quality Websites Matter? In *Proceedings of the 41st Annual Hawaii International Conference on System Sciences (HICSS'08)*.

- Chen, A. J., Pan, S. L., Zhang, J., Huang, W. W., & Zhu, S. (2009). Managing e-government implementation in China: A process perspective. *Information & Management*, 46(4). doi:10.1016/j.im.2009.02.002
- Chen, C. C., Wu, C. S., & Wu, R. C. F. (2006). e-Service enhancement priority matrix: The case of an IC foundry company. *Information & Management*, 43(5). doi:10.1016/j.im.2006.01.002
- Connolly, R. (2007). Trust and the Taxman: A Study of the Irish Revenue's Website Service Quality. *Electronic Journal of E-Government*, 5(2), 127–134.
- Corradini, F., Angelis, F. D., Polini, A., & Polzonett, A. (2008). Improving Trust in Composite eServices Via Run-Time Participants Testing. In *Proceedings of the 7th International Conference (EGOV 2008)*, Torino, Italy (Vol. 5184).
- Cullen, R., & Reilly, P. (2007). Information Privacy and Trust in Government: a citizen-based perspective from New Zealand'. In *Proceedings of the 40th Annual Hawaii International Conference on System Sciences (HICSS'07)*.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User Acceptance of Computer Technology: A Comparison of Two Theoretical Models. *Management Science*, 35, 982–1003. doi:10.1287/mnsc.35.8.982
- Dawes, S. (2002). *The future of e-government*. Albany, NY: University at Albany/SUNY. Retrieved from [www.ctg.albany.edu/publications/reports/future\\_of\\_egov/future\\_of\\_egov.pdf](http://www.ctg.albany.edu/publications/reports/future_of_egov/future_of_egov.pdf)
- Deursen, A. V. (2007). Where to Go in the Near Future: Diverging Perspectives on Online Public Service Delivery. In *Proceedings of the 6th International Conference (EGOV 2007)*, Regensburg, Germany (Vol. 4656).
- Fu, J. R., Farn, C. K., & Chao, W. P. (2006). Acceptance of electronic tax filing: A study of taxpayer intentions. *Information & Management*, 43(1). doi:10.1016/j.im.2005.04.001
- Furuli, K., & Kongsrud, S. (2007). Mypage and Borger.dk - a Case Study of Two Government Service Web Portals. *Electronic Journal of E-Government*, 5(2), 165–176.
- Gallant, L. M., Culnan, M. J., McLoughlin, P., Bentley, C., & Waltham, M. A. (2007). Why People e-File (or Don't e-File) Their Income Taxes. In *Proceedings of the 40th Annual Hawaii International Conference on System Sciences (HICSS'07)*.
- Gasmelseid, T. M. (2007). A Multiagent Service-oriented Modeling of E-Government Initiatives. *International Journal of Electronic Government Research*, 3(3), 87–106.
- Gefen, D., & Straub, D. (2000). The Relative Importance of Perceived Ease of Use in IS Adoption: A Study of E-Commerce Adoption. *Journal of the Association for Information Systems*, 1(8).
- Gibson, A. N., Bertot, J. C., & McClure, C. R. (2009). Emerging Role of Public Librarians as E-Government Providers. In *Proceedings of the 41st Annual Hawaii International Conference on System Sciences (HICSS'09)*.
- Golubeva, A., & Merkuryeva, I. (2006). Demand for online government services: Case studies from St. Petersburg. *Information Polity*, 11(3-4), 241–254.
- Gouscosa, D., Kalikakisa, M., Legalb, M., & Papadopoulos, S. (2007). A general model of performance and quality for one-stop e-Government service offerings. *Government Information Quarterly*, 24(4), 860–885. doi:10.1016/j.giq.2006.07.016
- Grönlund, Å., & Andersson, A. (2006). e-Gov Research Quality Improvements Since 2003: More Rigor, but Research (Perhaps) Redefined. In *Proceedings of 5th International Conference (EGOV 2005)*, Krakow, Poland (LNCS 4084, pp. 1-13). Berlin: Springer.
- Grönlund, Å., Hatakka, M., & Ask, A. (2007). Inclusion in the E-Service Society – Investigating Administrative Literacy Requirements for Using E-Services. In *Proceedings of the 6th International Conference (EGOV 2007)*, Regensburg, Germany (Vol. 4656).
- Horan, T. A., Abhichandani, T., & Rayalu, R. (2006). Assessing User Satisfaction of E-Government Services: Development and Testing of Quality-in-Use Satisfaction with Advanced Traveler Information Systems (ATIS). In *Proceedings of the 39th Annual Hawaii International Conference on System Sciences (HICSS'06)*.
- Hu, G., Zhong, W., & Mei, S. (2008). Electronic Public Service (EPS) and its implementation in Chinese local governments. *Int. J. of Electronic Governance*, 1(2), 118–138. doi:10.1504/IJEG.2008.017900
- Hung, S. Y., Changa, C. M., & Yu, T. J. (2006). Determinants of user acceptance of the e-Government services: next term the case of online tax filing and payment system. *Government Information Quarterly*, 23(1), 97–122. doi:10.1016/j.giq.2005.11.005

- Hypponen, H., Salmivalli, L., & Suomi, R. (2005). Organizing for a National Infrastructure Project: The Case of the Finnish Electronic Prescription. In *Proceedings of the 38th Annual Hawaii International Conference on System Sciences (HICSS'05)*.
- Islam, M. S., & Grönlund, Å. (2007). Agriculture Market Information E-Service in Bangladesh: A Stakeholder-Oriented Case Analysis. In *Proceedings of the 6th International Conference (EGOV 2007)*, Regensburg, Germany (Vol. 4656).
- Janssen, M., & Feenstra, R. (2008). Socio-technical design of service compositions: a coordination view. In *Proceedings of the 2nd International Conference on Theory and Practice of Electronic Governance (ICEGOV 2008)* (Vol. 351, pp. 323-330).
- Janssen, M., & Klievink, B. (2009). The Role of Intermediaries in Multi-Channel Service Delivery Strategies. *International Journal of Electronic Government Research*, 5(3), 36-46.
- Janssen, M., & Kuk, G. (2007). E-Government Business Models for Public Service Networks. *International Journal of Electronic Government Research*, 3(3), 54-71.
- Kaaya, J. (2009). Determining Types of Services and Targeted Users of Emerging E-Government Strategies: The Case of Tanzania. *International Journal of Electronic Government Research*, 5(2), 16-36.
- Kaliannan, M., Awang, H., & Raman, M. (2009). Electronic procurement: a case study of Malaysia's e-Perolehan (e-procurement) initiative. *Int. J. of Electronic Governance*, 2(2/3), 103-117. doi:10.1504/IJEG.2009.029124
- Kanat, I. E., & Özkan, S. (2009). Exploring citizens' perception of government to citizen services: A model based on theory of planned behaviour (TBP). *Transforming Government: People, Process and Policy*, 3(4).
- Kariofillis-Christos, C., & Economides, A. A. (2009). A holistic evaluation of Greek municipalities' web-sites. *Electronic Government: An International Journal*, 6(2), 193-212. doi:10.1504/EG.2009.024442
- Klischewski, R., & Ukena, S. (2008). An Activity-Based Approach towards Development and Use of E-Government Service Ontologies. In *Proceedings of the 41st Annual Hawaii International Conference on System Sciences (HICSS'08)*.
- Kraussl, Z., Yao-Hua, T., & Gordijn, J. (2009). A Model-Based Approach to Aid the Development of E-Government Projects in Real-Life Setting Focusing on Stakeholder Value. In *Proceedings of the 41st Annual Hawaii International Conference on System Sciences (HICSS'09)*.
- Kunstelj, M., Jukić, T., & Vintar, M. (2007). Analysing the Demand Side of E-Government: What Can We Learn From Slovenian Users? In *Proceedings of the 6th International Conference (EGOV 2007)*, Regensburg, Germany (Vol. 4657).
- Leben, A., Kunstelj, M., Bohanec, M., & Vintar, M. (2006). Evaluating public administration e-portals. *Information Polity*, 11(3-4), 207-225.
- Lee, C. B. P., & Lei, U. L. E. (2007). Adoption of E-Government Services in Macao. In *Proceedings of the 1st International Conference on Theory and Practice of Electronic Governance (ICEGOV 2007)*, Macao, China (pp. 217-220).
- Lee, H., Irani, Z., Osman, I. H., Balci, A., Ozkan, S., & Medeni, T. D. (2008). Toward a reference process model for citizen-oriented evaluation of e-Government services. *Transforming Government: People, Process and Policy*, 2(4).
- Lepouras, G., Vassilakis, C., Sotiropoulou, A., Theotokis, D., & Katifori, A. (2008). An active blackboard for service discovery, composition and execution. *Int. J. of Electronic Governance*, 1(3), 275-295. doi:10.1504/IJEG.2008.020450
- Lourdes, T., Vicente, P., & Basilio, A. (2005). E-government developments on delivering public services among EU cities. *Government Information Quarterly*, 22(2), 217-238. doi:10.1016/j.giq.2005.02.004
- Luka, S. C. Y. (2009). The impact of leadership and stakeholders on the success/failure of e-government service using the case study of e-stamping service in Hong Kong. *Government Information Quarterly*, 26(4), 594-604. doi:10.1016/j.giq.2009.02.009
- Magoutas, B., Halaris, C., & Mentzas, G. (2007). An Ontology for the Multi-perspective Evaluation of Quality in E-Government Services. In *Proceedings of the 6th International Conference (EGOV 2007)*, Regensburg, Germany (Vol. 4657).
- Magoutas, B., & Mentzas, G. (2009). Refinement, Validation and Benchmarking of a Model for E-Government Service Quality. In *Proceedings of the 8th International Conference (EGOV 2009)*, Linz, Austria (Vol. 5693).

- McLeod, A. J., & Pippin, S. E. (2009). Security and Privacy Trust in E-Government: Understanding System and Relationship Trust Antecedents. In *Proceedings of the 41st Annual Hawaii International Conference on System Sciences (HICSS'09)*.
- Melin, U., & Axelsson, K. (2009). Managing e-service development – comparing two e-government case studies. *Transforming Government: People, Process and Policy*, 3(3).
- Mike, G., & Anthony, M. (2007). e-Government information systems: Evaluation-led design for public value and client trust. *European Journal of Information Systems*, 16(2).
- Mitra, A. (2005). Direction of electronic governance initiatives within two worlds: case for a shift in emphasis. *Electronic Government, an Int. J.*, 2(1), 26-40.
- Papadomichelaki, X., Magoutas, B., Halaris, C., Apostolou, D., & Mentzas, G. (2006). A Review of Quality Dimensions in e-Government Services. In *Proceedings of the 5th International Conference (EGOV 2006)*, Krakow, Poland (Vol. 4084).
- Papadomichelaki, X., & Mentzas, G. (2009). A Multiple-Item Scale for Assessing E-Government Service Quality. In *Proceedings of the 8th International Conference (EGOV 2009)*, Linz, Austria (Vol. 5693).
- Pardhasaradhi, Y., & Ahmed, S. (2007). Efficiency of Electronic Public Service Delivery in India: Public-Private Partnership as a Critical Factor. In *Proceedings of the 1st International Conference on Theory and Practice of Electronic Governance (ICEGOV 2007)*, Macao, China.
- Park, R. (2008). Measuring Factors that Influence the Success of E-Government Initiatives'. In *Proceedings of the 41st Annual Hawaii International Conference on System Sciences (HICSS'08)*.
- Pelly, P. K., & Sia, S. K. (2007). Challenges in delivering cross-agency integrated e-services: The OBLS project'. *Journal of Information Technology*, 22(4).
- Pentafronimos, G., Papastergiou, S., & Polemi, N. (2008). Interoperability testing for e-government web services. In *Proceedings of the 2nd International Conference on Theory and Practice of Electronic Governance (ICEGOV 2008)*, Egypt (Vol. 351, pp. 316-321).
- Phang, C. W., Li, Y., Sutanto, J., & Kankanhalli, A. (2005). Senior Citizens' Adoption of E-Government: In Quest of the Antecedents of Perceived Usefulness. In *Proceedings of the 38th Annual Hawaii International Conference on System Sciences (HICSS'05)*.
- Pinho, J. C., & Macedo, I. M. (2008). Examining the antecedents and consequences of online satisfaction within the public sector: The case of taxation services. *Transforming Government: People, Process and Policy*, 2(3).
- Roy, J. (2009). E-government and integrated service delivery in Canada: the Province of Nova Scotia as a case study. *Int. J. of Electronic Governance*, 2(2/3), 223–238. doi:10.1504/IJEG.2009.029131
- Sacco, G. M. (2007). Interactive exploration and discovery of e-government services. In *Proceedings of the 8th annual international conference on Digital government research*, Philadelphia, PA (Vol. 228, pp. 190-197).
- Sahu, G. P., & Gupta, M. P. (2007). Users' Acceptance of E-Government: A Study of Indian Central Excise. *International Journal of Electronic Government Research*, 3(3), 1–21.
- Salhofer, P., Tretter, G., Stadlhofer, B., & Joanneum, F. H. (2008). Goal-oriented service selection. In *Proceedings of the 2nd International Conference on Theory and Practice of Electronic Governance (ICEGOV2008)*, Egypt (Vol. 351, pp. 60-66).
- Sarikas, O. D., & Weerakkody, V. (2007). Realizing integrated e-government services: a UK local government perspective. *Transforming Government: People, Process and Policy*, 1(2).
- Schapp, L. C., Carter, L., & Hobbs, J. (2009). E-File Adoption: A Study of U.S. Taxpayers' Intentions. In *Proceedings of the 41st Annual Hawaii International Conference on System Sciences (HICSS'09)*.
- Scupola, A., Henten, A., & Nicolajsen, H. W. (2009). E-Services: Characteristics, Scope and Conceptual Strengths. *International Journal of E-Services and Mobile Applications*, 1(3), 1–16.
- Sehl, M., & Faouzi, B. (2009). Multi-agent based framework for e-government. *Electronic Government: An International Journal*, 6(2), 177–192. doi:10.1504/EG.2009.024441
- Shachaf, P., & Oltmann, S. M. (2007). E-Quality and E-Service Equality. In *Proceedings of the 40th Annual Hawaii International Conference on System Sciences (HICSS'07)*.
- Stoica, V., & Ilas, A. (2009). Romanian Urban e-Government. Digital Services and Digital Democracy in 165 Cities. *Electronic Journal of E-Government*, 7(2), 171–182.

- Tan, C. W., Pan, S. L., & Lim, E. T. K. (2005). Towards the Restoration of Public Trust in Electronic Governments: A Case Study of the E-Filing System in Singapore. In *Proceedings of the 38th Annual Hawaii International Conference on System Sciences (HICSS'05)*.
- Tang, L. (2006). Group Effectiveness: An Integral and Developmental Perspective. In *Proceedings of the Annual meeting of the International Communication Association*, Dresden, Germany.
- Tung, L. L., & Rieck, O. (2005). Adoption of electronic government services among business organizations in Singapore. *The Journal of Strategic Information Systems*, 14(4). doi:10.1016/j.jsis.2005.06.001
- Vassilakis, C., Lepouras, G., Halatsis, C., & Lobo, T. P. (2005). An XML model for electronic services. *Electronic Government, an Int. J.*, 2(1), 41-55.
- Velsen, L. V., Geest, T. V. d., Hedde, M. t., & Derks, W. (2008). Engineering User Requirements for e-Government Services: A Dutch Case Study. In *Proceedings of the 7th International Conference (EGOV 2008)*, Torino, Italy (Vol. 5184).
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *Management Information Systems Quarterly*, 27(3), 425-478.
- Verdegem, P., & Hautekeete, L. (2008). The user at the centre of the development of one-stop government. *Int. J. of Electronic Governance*, 1(3), 258-274. doi:10.1504/IJEG.2008.020449
- Walsham, G. (1995). Interpretive case studies in IS research: nature and method. *European Journal of Information Systems*, 4, 74-81. doi:10.1057/ejis.1995.9
- Wang, L., Bretschneider, S., & Gant, J. (2005). Evaluating Web-Based E-Government Services with a Citizen-Centric Approach. In *Proceedings of the 38th Annual Hawaii International Conference on System Sciences (HICSS'05)*.
- Webster, J., & Watson, R. (2002). Analyzing the past to prepare for the future. *Management Information Systems Quarterly*, 26(2).
- Welch, E. W., & Pandey, S. (2007). Multiple Measures of Website Effectiveness and their Association with Service Quality in Health and Human Service Agencies. In *Proceedings of the 40th Annual Hawaii International Conference on System Sciences (HICSS'07)*.
- Wendy, O., & Leela, D. (2007). Citizen Participation and engagement in the Design of e-Government Services: The Missing Link in Effective ICT Design and Delivery. *Journal of the Association for Information Systems*, 8(9).
- Wimmer, M., Codagnone, C., & Janssen, M. (2008). Future of e-Government Research: 13 research themes identified in the eGovRTD2020 project. In *Proceeding of the 41st Hawaii International Conference on System Sciences*.
- Yang, J., & Paul, S. (2005). E-government application at local level: issues and challenges: an empirical study. *Electronic Government, an Int. J.*, 2(1), 56-76.
- Yu, C. C. (2008). Building a Value-Centric e-Government Service Framework Based on a Business Model Perspective. In *Proceedings of the 7th International Conference (EGOV 2008)*, Torino, Italy (Vol. 5184).
- Zhenyu, H. (2007). A comprehensive analysis of U.S. counties' e-Government portals: development status and functionalities. *European Journal of Information Systems*, 16(2).

*M. Sirajul Islam is a PhD student in eGovernment at the Swedish Business School of Örebro University. He is also pursuing MSc in eGovernment leading to the PhD from the same department. Islam has a Bachelor in Business Administration and MBA in Finance and Digital Technologies Management. He is a founding President of Bangladesh Centre for E-governance ([www.egov.net.bd](http://www.egov.net.bd)) and elected fellow of the UK based World Innovation Foundation. Islam is one of the recipients of 'Strengthening ICTD Research Capacity in Asia (SIRCA)' fellowship program sponsored jointly by Nanyang Technology University, Singapore and IDRC, Canada. His areas of research interest are ICT4D, M4D, Rural Development, Agriculture Market Information Service (AMIS), and eGovernment in developing country context.*

*Ada Scupola is an associate professor at the Department of Communication, Business and Information Technologies, Roskilde University, Denmark. She holds a Ph.D in social sciences from Roskilde University, an MBA from the University of Maryland at College Park, USA and a M.Sc. from the University of Bari, Italy. She is the editor-in-chief of The International Journal of E-Services and Mobile Applications. Her main research interests are user driven innovation, e-services, outsourcing, ICT in supply chain, adoption and diffusion of e-commerce and e-services in SMEs, ICTs in clusters of companies. She is collaborating and has collaborated to several national and international research projects on the above subjects. Her research has been published in several international journals among which Library Management, Technological Forecasting and Social Change, The Journal of Information Science, International Journal of E-Services and Mobile Applications, The Information Society, Journal of Enterprise Information Management, Journal of Electronic Commerce in Organizations, The Journal of Global Information Technology Management, Scandinavian Journal of Information Systems, The Journal of Electronic Commerce in Developing Countries and in numerous book chapters and international conferences.*

## APPENDIX I. LIST OF JOURNALS AND CONFERENCES USED IN THE STUDY

### *Conferences – 45 papers*

<i>International Conference on Theory and Practice of Electronic Governance (ICEGOV)</i>	7
1st Intl. Conference on Theory and Practice of Electronic Governance (ICEGOV2007) – 2	
2nd Intl. Conference on Theory and Practice of Electronic Governance (ICEGOV2008) – 4	
3rd Intl. Conference on Theory and Practice of Electronic Governance (ICEGOV2009) - 1	
<i>International Conference (EGOV)</i>	18
5th International Conference (EGOV 2006) – 3	
6th International Conference (EGOV 2007) – 6	
7th International Conference (EGOV 2008) – 6	
8th International Conference (EGOV 2009) - 3	
Digital Government Society (dg.o 2007)	1
Annual Hawaii International Conference on System Sciences (HICSS)	19
Proceedings of the 38th Annual Hawaii Intl. Conference on System Sciences (HICSS'05) – 4	
Proceedings of the 39th Annual Hawaii Intl. Conference on System Sciences (HICSS'06) - 2	
Proceedings of the 40th Annual Hawaii Intl. Conference on System Sciences (HICSS'07) - 4	
Proceedings of the 41st Annual Hawaii Intl. Conference on System Sciences (HICSS'08) - 5	
Proceedings of the 42nd Annual Hawaii Intl. Conference on System Sciences (HICSS'09) - 4	

### *Journals - 50 papers*

International Journal of Electronic Government Research (IJEGR)	7
Electronic Government, an International Journal	6
Government Information Quarterly	6
Int. J. of Electronic Governance	5
Transforming Government: People, Process and Policy	5
Electronic Journal of e-Government	4
Information & Management	3
Information Systems Journal	2
Journal of strategic information systems	3
e-Service Journal	2
European Journal of Information Systems	2
Information Polity	2
International Journal of E-Services and Mobile Applications (IJESMA)	1
Journal of Information Technology	1
Journal of the Association for Information Systems	1

# CALL FOR ARTICLES

## International Journal of E-Services and Mobile Applications

*An official publication of the Information Resources Management Association*

The Editor-in-Chief of the *International Journal of E-Services and Mobile Applications* (IJESMA) would like to invite you to consider submitting a manuscript for inclusion in this scholarly journal.

### MISSION:

The *International Journal of E-Services and Mobile Applications* (IJESMA) promotes and publishes state-of-the art research regarding different issues in the production management, delivery and consumption of e-services, self services, and mobile communication including business-to-business, business-to-consumer, government-to-business, government-to-consumer, and consumer-to-consumer e-services relevant to the interest of professionals, academic educators, researchers, and industry consultants in the field.

### COVERAGE/MAJOR TOPICS (include but are not limited to):

- Adoption and diffusion of e-services
- Business models for mobile services
- Conceptual foundations and theoretical frameworks of e-services
- Differences between services and e-services
- E-banking
- E-government
- E-health
- E-learning
- E-libraries
- E-retailing
- E-services and business models
- E-services and competences
- E-services and entrepreneurship
- E-services and human resource management
- E-services and innovation
- E-services and knowledge management
- E-services and SMEs
- E-services and strategies
- E-services in the building industry
- E-services in the financial industry
- E-services in virtual worlds
- Internet-based companies providing e-services
- Issues related to e-services, self service, and mobile applications
- IT enabled self-services
- Mobile applications
- Mobile services
- Service science
- Telemedicine
- Transition from industrial to service and e-service economy
- Web-based portals offering different kind of services



ISSN 1941-627X  
eISSN 1941-6288  
Published quarterly

**For more information, please contact  
Ada Scupola,  
Editor-in-Chief,  
at: [ada@ruc.dk](mailto:ada@ruc.dk)**

**Ideas for Special Theme Issues may be submitted to the Editor-in-Chief.**

**Please recommend this publication to your librarian. For a convenient easy-to-use library recommendation form, please visit: <http://www.igi-global.com/IJESMA> and click on the "Library Recommendation Form" link along the right margin.**