Preface

INTRODUCTION

Essentially, e-government is about using the tools and systems made possible by information and communication technologies to provide better public services to citizens and businesses. However, e-government involves much more than just the tools. Effective e-government also involves rethinking organizations and processes, and changing behavior so that public services are delivered more efficiently to the people who need to use them. When it is well implemented, e-government will enable all citizens, enterprises and organizations to carry out their business with government more easily, more quickly and at lower cost (European Commission, Information Society).

Governments seek to remodel and restyle their services and the field of E-Government attracts continuous interest and attention from public administrations, politicians, academics and citizens. New dynamic topics such as e-democracy, e-citizenship, e-identity, e-procurement and e-voting have become core elements in the development of public sector delivery.

Additionally the implementation of e-procurement systems helps companies and institutions to organize their interactions with their strategic suppliers. It provides those who use it with a set of built-in monitoring tools to help control costs and assure maximum supplier performance. It offers an organized way to keep an open line of communication with potential suppliers during a business process. And finally e-procurement helps with the decision-making process by keeping relevant information neatly organized and time-stamped.

The book *E-Procurement Management for Successful Electronic Government Systems* aims to bridge academia, industry, and government with new ideas and fresh research in the broad area of E-Government.

The subject area is a combination of e-government, e-democracy, e-identity, e-procurement management, information systems, public services, web semantics, and web services.

OBJECTIVE OF THE BOOK

In the Ministerial Declaration of E-Government on November 18, 2009, it was declared that “E-Government has not only become mainstream in national policies but has also reached beyond national boundaries to become an important enabler to deliver European-wide policy goals across different sectors, from justice to social security, to trading business services and beyond. […] better public services need to be delivered with fewer resources, and that the potential of E-Government can be increased by
promoting a common culture of collaboration and by improving the conditions for interoperability of our administrations” (p. 1).

Another interesting topic is e-procurement. The concept is more than just a system for making purchases online as it encompasses the management of correspondence, bids, questions and answers, previous pricing, and multiple emails sent to multiple participants.

Therefore, information and communication technology systems are now at the heart of government processes, but efforts are still needed to ensure they continue to improve the delivery of government services.

The aims and scope of this book is to be an international platform to bring together academics, researchers, lecturers, and persons in decision making positions, policy makers and practitioners from different backgrounds to share new theories, research findings, and case studies, enhancing understanding and collaboration in e-government and the role of information technologies in supporting the development of better services for citizens. The book analyzes recent developments in theory and practice.

TOPICS COVERED IN THE BOOK

Chapter 1 introduces the construction of a generic platform and open secure voting and multipurpose for the realm of the Internet. This platform will allow the collection of signatures and support multiple contexts through the use of electronic IDs and digital certificates. Potential applications of this platform are almost endless, but some of the most significant may be: Voting at shareholders meetings, voting in communities of neighbors, collecting signatures, collecting signatures for nominations, developing proposals for ILP (popular legislative initiatives), any activity needing a platform for a reliable vote, meetings of parents, collegiate, et cetera. Currently the use of e-government for the identification of people through digital documents is on the increase, and the possibilities it presents are endless. That is why solutions are provided to allow these uses; it is of general interest for the present society.

Chapter 2 explores government procurement practices, and more specifically, how they influence large volumes of spending in communities and how further procurement can be influenced through legislative efforts. Through these mechanisms, government bodies carry significant influence on the way in which procurement spending occurs and they have the ability to influence the direction that the procurement may take. Carefully constructed parameters in public-private partnerships (PPP) can shift the focus of procurement activities towards engaging with the local businesses and communities. This represents an approach for government bodies to increase supplier diversity so that, in alignment with UN Millennium goals of poverty reduction, local suppliers can be provided with business opportunities and methods to reduce poverty. A two-focus approach is adopted; first, government drivers and policies are examined in the context of social engagement. Second, the roles and challenges faced by small firms in the local communities are highlighted. This demonstrates the way in which e-government procurement systems play a pivotal role in supporting local sourcing initiatives.

Chapter 3 delves into the area of public electronic procurement. The chapter discusses how e-procurement provides a new means of communication between contracting authorities and economic operators, as well as being one of the most important areas in the development in the business-to-business (B2B) e-commerce like buyers and suppliers entities respectively. European Union (EU) has been working
hard for the adoption of e-procurement in the governments of member states, over all action plans for the development of e-government occurred during the new millennium. However, this transition, from the traditional model of procurement management procedure to electronic means, is very complicated, on one side by the impact of any new technology brings and the required regulatory policies, both within the EU and in member states. This study presents the e-procurement from the e-government regulatory contexts in EU. Then, it outlines the basic pillars of both the public e-procurement process and the management systems, and finally, introduces large-scale pilot projects by the European Commission (EC) that provide technology solutions for many of the stages of the procurement process.

Chapter 4 identifies benefits achieved by the Caixa Economica Federal (Caixa) with regard to improvements in efficiency and to deploy of its e-procurement solution associated with MRO (Maintenance, Repair, and Operation). Through simple case study, the chapter seeks to analyze the strategic importance of deploying shopping site Caixa, investigating how the dimensions of technological, organizational, and cultural influence the efficiency of their production processes. Although the results are significant in relation to the recovery time of investment, and promising for the potential to reduce administrative costs of the company, factors linked to participation and willingness to adopt a new sales model and the investment capacity and flexibility to adopt models were extremely important from the perspective of suppliers.

Chapter 5 discusses E-Government, particularly its effectiveness with rethinking organizations and processes, and changing behavior so that public services are delivered more efficiently to the people who need to use them. But the nature of the public sector is not a simple one. Lots of variables have to be considered: the number of entities involved in public sector procurement, the complexity of relationships among them, historical events that impact on the public sector, and different tensions between central and local parts of the public sector. In general, the most striking feature is the sheer complexity of the public sector. In the authors’ opinion, it required a reconceptualisation of market exchange, evolving the procurement scenario from competition to collaboration. Public e-procurement is still an under-researched area. Therefore the aim of the chapter is to conduct a reflection to identify the features of purchasing and supply in the public sector and its further developments toward forms of collaboration and group purchasing.

Chapter 6 looks at the current interest in understanding main issues involved in implementing e-auction events, especially in a Business to Business (B2B) environment. This chapter offers clear classifications and systematizes the numerous variables directly or indirectly affecting e-auction suitability. Final performance determination is evident also from previous conceptual literature contributions. Nevertheless, a lack of empirical work in this field is evident. This chapter provides a contribution to the body of knowledge on critical factors impacting on e-Reverse Auctions (e-RA) performance in a B2B context. Based on an explorative factor analysis addressed to a panel of academic experts and practitioners, it aims at identifying the main factors affecting price and process performance in B2B e-RA.

Chapter 7 describes re-use in the field of public procurement within the European Union (EU). It describes how the lack of a pan-European information platform, providing one single access point to EU public procurement notices, hampers the access for companies to this market, especially for SMEs. To bring one possible solution to this significant issue, Euroalert.net (a company powered by open data), is currently developing commercial services fuelled by the re-use of public sector information (PSI) related to public procurement. The chapter also describes 10ders information Services (10ders IS), a
Euroalert.net R&D project aimed at building a pan-European platform to aggregate public procurement information data generated by hundreds of thousands of contracting authorities in the EU.

Chapter 8 recognizes that in almost every country, public procurements are the primary issue which citizens are the most sensitive to in terms of how public money is spent. It is seen that electronic procurement systems in the public sector has been adopted as a solution in order to respond to the sensitivity of citizens because of the benefits it promises. The objective of this chapter is to reveal benefits gained and barriers faced during the development process of the e-procurement by focusing on a pilot implementation field. In order to attain this objective, the method of case study was adopted in this research and guiding experiences tried to be gained for the e-procurement implementations in the future.

Chapter 9 aims its focus at governments that are seeking to benefit from information technology by incorporating various government services online for the benefits of the citizen. The Malaysian government as part of its Multimedia Super Corridor (MSC) project introduced e-Filing in 2006, which is the process of filing taxes using the Internet as one of the e-government services. This is an exploratory study to model the determinants of intention to use an Internet tax filing system. The authors used four variables as predictors or intention to use which were perceived usefulness, perceived ease of use, perceived risk and facilitating condition. Data was collected from 100 respondents using non probability purposive sampling via a structured questionnaire. As hypothesized, perceived ease of use, perceived usefulness, and facilitating condition were positively related to intention to use. The findings show that perceived usefulness has the strongest influence on intention to use (β = 0.341), followed by perceived ease of use (β = 0.278) and facilitating condition (β = 0.234). As hypothesized, perceived risk was negatively related (β = -0.223) to intention to use indicating that users are concerned by the risk involved in filing taxes online. The regression results show that the four variables can explain 52.2% of the variation in intention to use which indicates good explanatory power. Understanding these factors can extend the knowledge which can lead to better planning and implementation of e-filing in Malaysia.

Chapter 10 explores how e-government can provide citizens with better and/or more convenient services as opposed to traditional government services. Using electronic approaches in completing a procurement process opens up issues regarding security. Transparent nature of the process at hand is requiring a sophisticated security system. Unauthorized access or different intrusion types are presenting a legitimate threat. On the other hand, developing such systems in a developing country as Serbia bears many difficulties. Some of them are legal obstacles, technical weaknesses, as well as human resistance towards change. The focus of this chapter lies on methods used to overcome those difficulties as well as provide a strong security system that will guarantee the protection of sensitive data.

Chapter 11 notes that in almost every country, government agencies are making their services available online. The success of E-Government initiatives is contingent upon citizen’s willingness to use these Web-enabled services. This chapter investigates and examines the intention to use E-Government services among students in Universiti Sains Malaysia (USM), Penang. A survey involving a total of 145 university students was conducted. The results reveal that relative advantage and ease of use are the significant drivers of intention to use e-government, whereas image and compatibility were not important. The implications for research and practice are also explored.

Chapter 12 discusses that within the last decade, the Small and Medium Enterprises (SME) market has been enormously raised and the major vendors are trying to adapt their software to suit it. One important factor to be taken into consideration in such context is the support of internal and external busi-
ness process integration. Service-oriented systems are offering reasonable business process integration support. However, they lack semantic definition of their service interfaces. The research presented in this chapter tries to solve this issue by proposing a semantic-enabled enterprise service-oriented framework where services can be semantically grouped based on the domains to which they belong. The proposed framework is merging both business processes and service orientation concepts to provide an agile and flexible enterprise solution that utilizes reusability, better quality, and faster time-to-market factors. This chapter illustrates this framework, its goals and outcomes, together with demonstration of a business case built on top of it.

Chapter 13 focuses on the relationship of e-procurement and government, within the context of a larger whole, namely e-government. E-Procurement and e-government are very important tools for the government to act in this rapidly changing society. But as for most business, the tools may be important, but the vision and the strategy to use these tools are much more important. Therefore we will discuss e-government and e-procurement in their strategic contexts, in which intelligence (contextual integrated information) is a key factor to survive. The reason why is because the government is a Complex Adapative System (CAS). Without intelligence and the agility of its structure and processes, the government will not survive, or at least it will be less efficient and effective in developing strategies and in executing these strategies. Game theory is discussed to show that flexibility and agility of an e-procurement system (together with a good strategy) are key factors for a successful system; otherwise, e-procurement is more of weakness in the government’s value chain of procurement of goods and services. In the last part of the discussion on Cloud Computing and E-Procurement, the authors argue that ERP systems (so called best practices) are not well adapted to other contexts than the simple context of the Cynefin Framework. Service Oriented Architecture solutions can provide better (adapted) solutions for E-Procurement. Cloud computing in combination with SOA may be the next generation solution.

Chapter 14 addresses how local authorities or municipalities have different organizational structure and goals and as such implementing a customized information systems project requires a separate evaluation that would fit their needs. In the case of an electronic procurement system, the implementation of this project at the central government level is not without challenges. Similarly, at the local government level, issues prevailed. Thus, this chapter highlights the issues encountered by twelve local authorities in the state of Selangor, Malaysia. The issues are broken down into four themes, namely, political, economic, social, and technological. It is important to note that local authorities fall within the jurisdiction of the state government, thus, more issues are abound particularly with regards to political interference. Nonetheless, the ultimate goal of having an online public procurement system is a win-win situation for both the local authority concerned and the vendors or suppliers. Hence, identifying the issues and learning from them will limit project failures or extended scheduling. Inherently, the implications of lessons learned from others who have implemented an online public procurement system will provide valuable guidelines for other lagging municipalities, yet at the same time, the late implementers will benefit more as they are able to avoid the pitfalls made by their counterparts that embarked earlier. In fact, the late-comers tend to achieve better success rate and report a significant return of investment.

Chapter 15 details how Supply Chain Management (SCM) is a strategy that has allowed the organizations that have established this system in their business models have a competitive advantage. The supply chain is a network of elements, where different key process such as: procurement, manufacturing, distribution, inventory, customer services, and information should be managed and controlled to meet
customer requirements. To achieve this goal, different tools have been developed to help to the key processes of the supply chain, one of these tools is the e-procurement system, which helps an organization to controlled the interactions with the most crucial suppliers.

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REFERENCES