

Preface

Enterprise Resource Planning is playing a strategic role in designing, and managing E-Government resources. Governments all over the world are facing challenges in designing robust Enterprise Resource Planning applications & methodologies to align themselves with the expectations of citizens and stakeholders. The existing standard Enterprise Resource Planning solutions are proprietary, inflexible and expensive to implement in Government Enterprises. There is a growing demand for action-oriented research to provide insights into challenges, issues, and solutions related to the design, development, implementation and management of government resources through Enterprise Resource Planning Systems.

The objective of this book is to suggest Enterprise Resource Planning frameworks for government enterprises along with their applications & methodologies to improve effectiveness of processes & enhancing citizen-centric services. The research initiatives presented in this book is expected to ease the process of implementing customized Enterprise Resource Planning solutions in E-Government.

The book is useful for professionals and researchers working in the field of E-Government including policy makers, academicians ICT vendors, consultants, and implementing agencies.

The call for chapters was sent to 1000 research institutions, consultants, academicians, and industry experts all the over world, that attracted enormous interest in addressing various e-government issues. After a stringent blind refereeing process and coupled with well-focused persuasive, qualitative IGI Global's book editing style, 11 contributions were selected for publication in this book.

The book is logically sequenced into chapter having two sections to examine major themes: Section 1 proposes Strategic ERP Framework & Methodologies for E-Government and Section 2 suggests ERP Processes & Applications for E-Government.

Government Process Reengineering (GPR) is the most important component for designing ERP frameworks. Chapter 1 in Section 1 present introduction, synthesis and analysis of literature of GPR from 1997 to 2009. It reviews normative studies that examine the nature and characteristics of government process reengineering, challenges and problems of undertaking government process reengineering, and relationships between government process reengineering and IT-especially enterprise resource planning (ERP)-based E-Government. The analysis also encompasses the methods, techniques and tools for undertaking GPR; analytical and conceptual GPR models and frameworks; and empirical studies that evaluate GPR implementation outcomes and identify the critical success or failure factors.

A sound and effective implementation approach is the basis for success of ERP in E-Government. The authors in Chapter 2 have suggested phased ERP implementation model consisting of four phases – preparation and training, transition, performance and usefulness, and maintenance using data from two manufacturing divisions that implemented ERP,. The empirical support for this model is provided through research findings to identify major phases in ERP implementation process.

E-government agencies in developed and developing countries are anticipating efficiency and effectiveness gains from the evolution of new e-business models. The adoption of Enterprise Resource Planning (ERP) is one of these e-business models. The Chapter 3 explores the adoption of ERP by the Australian Department of Defense through longitudinal action research. This development is of interest to other public sectors wishing to avoid unnecessary expense and to achieve an efficient and effective outcome in minimum time.

ERP facilitates the organizations to standardize and to provide common user interface. The Chapter 4 is an attempt to understand why the accounting function of a Swiss public administration has significantly changed following the implementation of an ERP system. To study this social phenomenon, an ethnography research strategy has been followed. The analysis is structured around organizational structure changes, standardization and centralization processes, and centralization's effect on accounting tasks. Research findings and analyses indicate that the power of each public administration department under review is very strong to the point that it has negatively impacted the necessary standardization imposed by an ERP system implementation. Consequently, authors advocate that an ERP implementation project cannot be managed in the same manner as those realized in the private sector.

The impediments and fallouts in the formulation, implementation and evaluation of ERP solutions for E-government are directly related to the societal approach. The author in the Chapter 5 of this section has proposed ERP III with moral epicenter assuming that societal approach can be attained if individuals are trained in the moralistic values which eventually redefine the entrepreneurial goals such that it adopts befitting approach in pursuing specific targets. This chapter highlights concept, strategic paradoxes, and rebuilding through didactic approach by e-initiative and prognostic strategy for ERP III.

The basic objective of E-Government framework is to enhance quality of services provided to citizens. The Chapter 6 evaluates service quality, and suggests E-Government Citizen Centric Framework for Citizen Service Centers (CSC) of Haryana State in India. Citizen Centric framework is suggested using responses collected from 300 users of five (5) E-Government citizen service centers. This framework can be used in other similar E-Government citizen service centers to evaluate service quality.

Section 2 contains four chapters covering various aspects of ERP Processes & Applications for E-Government. The Chapter 7 portrays architecture for ERP system integration with heterogeneous E-Government modules. A distributed modular ERP system is a set of systems that operate in different locations where each module can use the resources of the other ERP modules in its own or in other ERP locations. These systems use a common database and therefore use modules supported by the ERP suppliers. Keeping in view the fact that ERP uses heterogeneous database modules and hence it becomes difficult to use the traditional ACID (Atomicity, Consistency, Isolation and Durability) database properties and inconsistency and anomaly arise. The users cannot trust the data they are reading and they can undermine the validity of the databases if they update the databases by using such inconsistent information. The author has recommended the possibility of using relaxed ACID properties to avoid this problematic situation.

New Public Management (NPM) and CRM e-government models have commonly been cited in the public administration literature as drivers of organizational reform and change. The author in Chapter 8 has examined common characteristics of these two models with data from a survey of local government chief administrators. The results indicate that local governments that used more advanced CRM technology are more likely to report organizational change from these models. The implications of

these findings suggest researchers to understand both the NPM and e-government principles important for understanding organizational change. In addition, CRM and in its ability to integrate information systems create a more enterprise approach to governance.

Ever-growing and evolutionary technologies of the Internet have lured nations in utilizing information and communication technologies to upgrade the livelihood of their citizens. Governments of most countries have initiated multi-faceted programs and initiatives to provide enhanced services through means and methods that are being facilitated by the Internet. However, forms and norms of services have taken shapes and domains depending on the ground context, expansion and maturity of ICTs in their countries and communities. The Chapter 9 explores situations of electronic forms of the government, which it argues is a pre-requisite for good governance and thus enable governments to reach the people at large. Particularly, the chapter reviews the emancipation of ICTs in eight countries of the South Asian Association for Regional Cooperation (SAARC). It investigates some basic parameters of ICTs retrieving archived data from various institutions and organizations. Later on, the chapter tries to generalize the situation in terms of recommendations.

The increasing use of Enterprise Resource Planning (ERP) Systems in E-Government is shifting the focus of such initiative to internal integration of processes. However, any e-government initiative with focus on optimization of internal processes will serve only a limited purpose. Rather, use of ERP systems should enable governments to provide a more effective platform for delivery of information and service to citizen more conveniently and in a transparent manner. The channel used for providing access to information and services is generally a web site/portal. In Chapter 10, the authors have made an attempt to evaluate municipal websites of twenty major cities in India. It also examines relationship between the income levels of the city and the quality of municipal website. While the significant differences were observed among municipal web sites of different cities, no significant relationship could be established between the quality of municipal websites and income levels in the city.

The government has become more dependent on modern technologies that have the potential to create seamless, responsive and citizen-centric government for the benefits of all. It has become increasingly vulnerable to a range of risks, from interruption of operations that are based on computers to loss of confidential data. Information security requires a combination of business, management, and technical measures in an on-going basis. The last, Chapter 11, helps to understand threats and risks, clarification and investigation techniques in mitigating these challenges and issues involved in improving E-governance ERP security.

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