Towards the Enhancement of Electronic Democracy: The Adoption of Reinventing Government and Electronic Government at the Municipal Level

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ABSTRACT

Electronic government (e-government) encompasses a wide range of services: dissemination of information, commerce with the private sector services to individual citizens and businesses and participatory democracy. The motivation by local and central governments to reduce administrative and operational costs, as well as enhancing the services they offer to businesses, citizens and the general community at large, has been a driving force for the development and implementation of an e-government infrastructure in Pakistan. In particular, whether public sector organizations might benefit from the use of established ex-ante evaluation techniques, when applied to analyze the impact of e-government information systems. The first part of the model shows how adoption of municipal e-government is determined by managerial innovativeness orientation, government capacity and institutional characteristics such as city size and government type. The second part suggests how e-government outcomes are associated with the adoption of e-government, government capacity and institutional characteristics. Analyzing two different survey data sets of American municipal reinvention and e-government, this study finds that managerial innovativeness orientation and city size are the most compelling determinants of municipal e-government adoption. Different levels of e-government adoption may yield different outcomes.

Key Words: E-government; E-administration; E-democracy; Digital democracy

INTRODUCTION

E-government is the use of information technology to enable and improve the efficiency with which government services are provided to citizens, employees, businesses and agencies. As the awareness for e-government is increasing, governments and societies all around the globe are engaging with a digital future for the public sector. Government agencies are using technology to enhance the access to, and the delivery of, government services to citizens, business partners and employees (Heeks, 2001). E-government is not only about changes in the area of public administration but also about changes in the area of public decision making. Internal as well as external communications and operations are affected through the emerging and strategic use of information technology (IT) in the public sector. Therefore, e-government is not only a term that refers to the transformation of governmental services, so-called e-administration, but also about the transformation of political systems, so called e-democracy. Federal, state and local governments have implemented various e-government initiatives to enable the purchase of goods and services, distribution of information and forms, and submission of bids and proposals. These online services are beneficial to both citizens and government. Agencies realize cost reductions and improved efficiency, while citizens receive faster, more convenient services. Local governments have been able to adopt and implement e-government because of rapid advances in the underlying hardware and software technologies (the 'e') that support e-government during this period. However, adoption of e-government has been driven more by government improvement than by technological innovation. That is, local governments have adopted e-government largely because it holds great promise to improve government efficiency and effectiveness, to improve citizen service delivery and to transform government itself.

The newly formulated e-government strategies are addressing a vast number of projects in the area of e-administration, and there is substantial empirical evidence about the success of the majority of these initiatives. Still, the claims about the benefits of e-democracy can be found within e-government strategies on the international and national level, but these claims are fundamentally lacking empirical evidence concerning the effects of proposed projects. Despite staffing, technical, financial and other limitations, many municipal governments have continued to pursue e-government initiatives and have made progress in basic e-government functions For example, the majority of municipal governments have their own web sites to provide public information to citizens, and more than half of municipal governments have established intranet systems.

Less widespread are efforts to offer online financial and service transactions and to provide opportunities for interactive political and policy participation. Some argue that e-government could change the paradigm of public service delivery at the local level indicating a potential relationship between e-government initiatives and local managerial innovations.

The implementation of a broadband e-government infrastructure is expected to bring radical change in the way in which businesses and citizens communicate and interact with one another. In Korea, for example, Choudrie and Lee (2004) found that the use of broadband within government departments and agencies has had a catalytic impact on the quality of public services, and encouraged previously bureaucratic organizations to re-engineer the way services are delivered to citizens. However, the nature of such change and resulting beneficiaries are not clearly understood and difficult to predict from both a social and technical perspective, largely because of ethic mix, cultural diversity and sensitive political motivations. Still, the claims about the benefits of e-democracy can be found within e-government strategies on the international and national level, but these claims are fundamentally lacking empirical evidence concerning the effects of proposed projects. Compared to the total amount of e-administration projects within different e-government initiatives, the amount of e-democracy projects is negligible (Wilhelm, 2000; Agren, 2001; Anttiroiko, 2001; Betz & Bargmann, 2003). As the United Nations Global e-government survey states quite clearly, 'The world's top 20 countries in the area of e-government, on average, are currently providing on-line opportunities for citizen participation that are seriously lacking in relevancy and usefulness, and are at only a third of the potential of what they could offer' (United Nations, 2003).

Municipal e-government continues to evolve, and some studies have explored its nature and scope, and the structural characteristics (form of government, government size, etc.) that facilitate its development. However, these studies have not effectively investigated the internal link between a culture of innovation (i.e. a managerial innovation orientation) and the development of e-government. Consequently, the research in this paper attempts to add a new dimension to existing theories on the hesitant evolution of e-democracy – the 'middleman paradox'.

Managerial innovations, the diffusion of e-government and government characteristics. Historically, the internet has been the subject of many discussions on how to influence the extension of democracy. Neutral analysis and opinions remark that so far the influence of the internet in politics has been limited to fund raising, and only in rare cases does it help to organize grassroots support. Various categorizations of e-government exist. Bélanger and Hiller (2005) classify e-government into six categories: Government Delivering Services to Individuals (G2IS),

Government to Individuals as a Part of the Political Process (G2IP), Government to Business as a Citizen (G2BC), Government to Business in the Marketplace (G2BMKT), Government to Employees (G2E) and Government to Government (G2G). G2IS involves communication and services between government and citizens, while G2IP involves the relationship that the government has with citizens as a part of the democratic process, such as e-voting. Similarly, while G2BC involves organizations paying taxes or filing reports, G2BMKT focuses on business transactions between government and businesses, such as e-procurement. The investment justification processes used by management are typically based on the use of traditional appraisal techniques, which are largely inadequate for strategic decision-making. Such techniques, even in the public sector, remain limited in use and scope. The managers tend to be myopic when considering information system (IS) investment decisions, primarily because they do not have a sufficiently robust framework by which to evaluate the benefits and costs of such investments.

Influenced by the abundant literature on innovation adoption and diffusion much of the IT literature in public administration has focused on the adoption of IT in the public sector. For example, many studies (Bugler & Bretschneider, 1993; Brudney & Selden, 1995; Norris & Demeter, 1999; Norris & Campillo, 2000) have found that government size is one of the primary factors related to IT adoption. Studying the effects of organizational environment (size and service demand) and organizational characteristics (professionalism, slack resource and administrative performance) on IT adoption in small city governments, Brudney and Selden (1995) find that government size and professionalism are the primary determinants of the adoption of computer technology.

However, the literature on e-government often argues that e-democracy is founded on the idea of streamlining political communications and altering aspects of political decision-making in order to improve the effectiveness and efficiency of democracy.

Although research covering IS evaluation in the public sector is limited, there are some pointers to concepts that need to be part of the initial conceptual framework (CF1) presented in Fig. 1. The historical growth of e-government, with its emphasis on central policy directives produces a unique context for investment decision-making. Thus, the first major conceptual division of IS evaluation within the framework is *investment decision-making*. Reports of scepticism and managerial myopia identifying the body responsible for the decision, and the basis for the decision (cost, benefit and risk), has resulted in the need to examine key questions.

Fig. 2 is a mapping of the areas of interaction with administration – including interaction with government and jurisdiction – (e-administration) and of interaction with legislation (e-democracy) within the SMP model. The 12

arrays characterize the complex procedural interplay between the systems of society, media and politics. The research portfolio also shows that e-democracy is not only about technology (and involves both e-participation and e-voting) but also impacts every aspect of an organization involved. In addition, it captures the behaviour of the members of the society (citizens, lobbies and opinion leaders), the media (media, agencies and market researchers) when interacting with, and attitudes towards, government agencies and representatives.

Technology acceptance model (TAM). Davis (1989) developed a model "Technology Acceptance Model (TAM)" which is widely being used to study user acceptance of technology (Fig. 3). The measures presented in Davis' study target employee acceptance of organizational software, but these measures have been tested and validated for various users, experienced and inexperienced, types of systems, word processing, spreadsheet, email, voice mail, etc., and gender.

Organizational culture and structure. The organization sees itself as progressive and does not wish to lag behind other authorities with regard to service delivery and e-government infrastructure. However, at odds with this vision is a recent internal reorganization that has resulted in a reduction in headcount, and particularly management's capacity to drive initiatives forward, such as IS implementation and evaluation. In common with public sector tradition, the organization is averse to risk. Senior decision makers do not always see potential benefits or wish to explore the risks of information system implementations, and therefore there is a lack of both vision and risk-management/mitigation. Generally, departments do not act corporately but instead, compete for *political recognition, status* and *resources*. Departmental objectives are idiosyncratic, and there is often a limited corporate approach to issues, including IS evaluation. This is characterized by corporate project inertia, rather than open disagreement. Departments appear to be overtly rational, while covertly negotiating private interests.

Exploratory theoretical framework. To explore the relationship between managerial orientation and advances in e-government, as indicated by dotted lines in Fig. 4, this study posits an exploratory framework that links a government's innovation orientation, its internal government capacity and its institutional characteristics (i.e. city size and type of government) to the adoption of e-government. As indicated by solid lines in Fig. 5, this study also explores the determinants of e-government effectiveness by examining the implementation of e-government, government capacity and institutional characteristics.

- Adoption of municipal e-government = *f* (managerial innovation orientation, government capacity, institutional characteristics). Indicated by dotted lines.
- Effectiveness of e-government = *f* (adoption of municipal e-government, government capacity, institutional
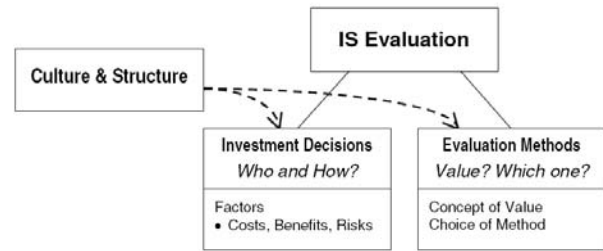
Fig. 1. Initial framework for public sector IS evaluation

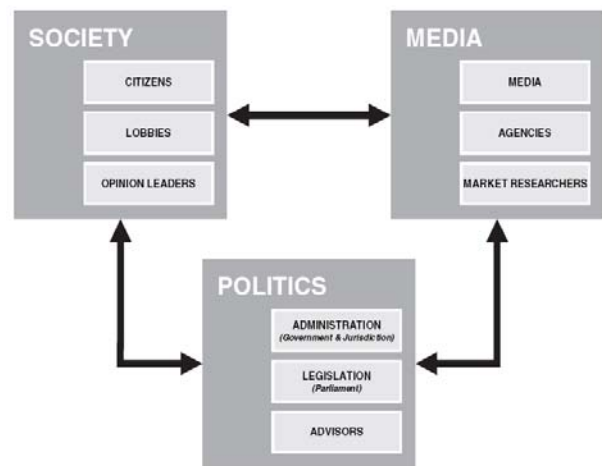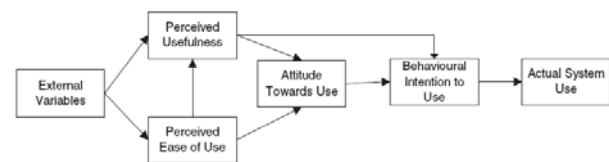**Fig. 2. The players within the society/media/politics model**

Fig. 3. Technology Acceptance Model (Davis, 1989)

characteristics) Indicated by solid lines.

Organizational culture and structure. The organization has a traditional hierarchical structure but is divided into three areas termed 'shires' for operational purposes. This structure has led to some strategic and operational difficulties, mainly due to the confusion of roles and responsibilities, which have not been clearly defined by senior management. The structure has impacted upon the authority's ability to act on a corporate basis and has led to departmental autonomy, and a lack of cohesion. On occasions, the structure has led to tension between the three shires and departments. This has an impact upon the authority's ability to manage, monitor, review and evaluate issues on a consistent basis, including IS.
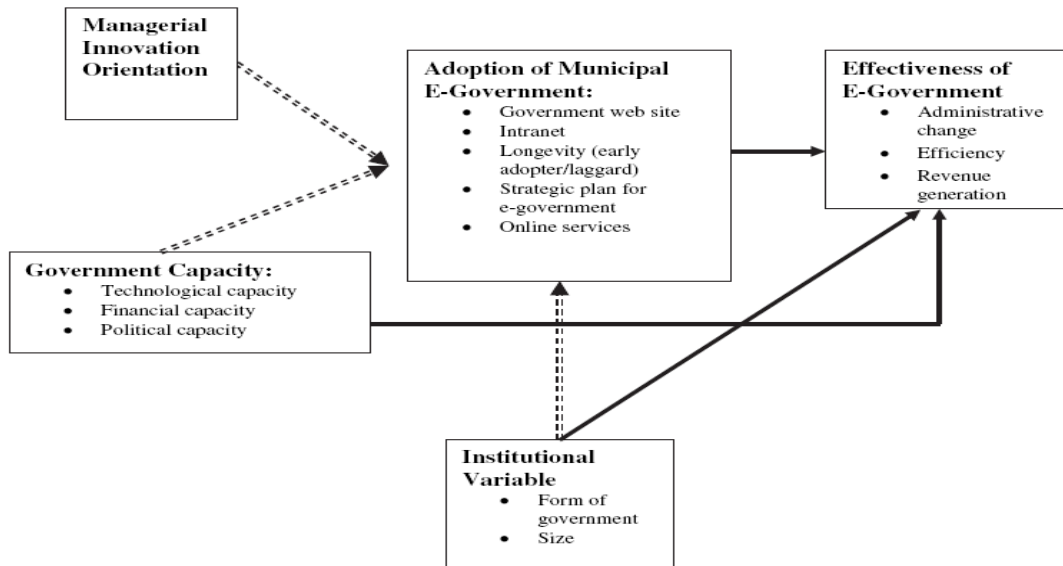
Fig. 4. Exploratory framework

Fig. 5. : Emergent concepts

Information systems have traditionally been used as a tool in an attempt to structure and standardize organizational practices across the organization, within individual departments in the three shires. However, this has been largely unsuccessful. The reason for this is that working practices are not consistent across the structure to facilitate the successful use of information systems. There are no official or formal forums to discuss IS investment decisions or their evaluation. It would appear that much decision-making is initiated by chance meetings that occur between senior IS managers and other senior functional managers.

Political and social issues heavily influence organizational life, including IS aspects. That is to say that the context in which the information system is deployed plays an important role in any evaluation approach. It was acknowledged that decisions are often political, and that evaluation is always subjective. The organization recognizes that it is impossible to impose a rational way of undertaking

IS evaluation via mechanistic methods. The reasons for this include the overt political culture, irrational management decision-making process and irrelevance of economic evaluation metrics in the public sector domain, all of which represent strong influencing factors.

Outcomes of e-government. Many believe that e-government initiatives will bring managerial and organizational change because these initiatives affect both internal and external work procedures and managerial relationships. In particular, e-government initiatives are expected to help governments reduce their size, the time demands on their staffs and their operating costs, and to change staff roles, increase non-tax revenues, re-engineer business processes and make business processes more efficient. We argue that governments will experience more positive e-government outcomes as they promote e-government initiatives more actively, strategically and resourcefully.

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