Identifying Barriers to E-Government Services for Citizens in Developing Countries: An Exploratory Study

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ABSTRACT

Although the use of ICT by government has demonstrated its potential in improving government services, worldwide there are more failures than successes of e-Government projects. In the context of developing countries, including India, authors have observed equally high failure rates. Therefore, it is important to understand the barriers to implementation of e-Government, especially in developing countries. This paper develops a comprehensive understanding of barriers to e-Government services for citizens in developing countries. This study was carried out in India, a developing country with a massive commitment to e-Government at policy and implementation levels. Based on variables identified from research, a survey of the key practitioners in e-Government was conducted to generate evidence on perceptions of barriers to e-Government. Even though a relatively small number of responses were received, the responses could be evaluated using principal component analysis to understand the latent structure of the barriers. Finally, 7 critical factors with 30 items are extracted that describe the latent structure of barriers to e-Government in development.

Keywords: Developing Countries, E-Government, Exploratory Factor Analysis, Government Project Failure, Information System Failure

INTRODUCTION

Although e-Government has demonstrated its potential in improving public services, worldwide there are more failures than successes (Heeks, 2003). It is not uncommon to observe in the broader area of information systems (IS) that one person’s failure is another’s success (Lyytinen & Hirschheim, 1987; Sauer, 1993). Yet the fact that a high percentage of (IS) projects fail is well established. For example, Hochstrasser and Griffiths (1991), conclude that up to 70% of all information systems projects do not deliver their objectives.

A rich body of knowledge on factors that cause failure of IS projects in private sector organizations is available (Wallace et al., 2004). On the other hand there is no single list...
of challenges to e-government initiatives as information systems in public organizations especially in developing countries (Garcia & Pardo, 2005). Also most of the studies on barriers to e-Government are based in developed countries, though some authors have suggested that lessons from developed countries can be useful in developing countries if they are applied proficiently (Weerakkody & Dwivedi, 2007). Even within the developed countries there are differences in barriers to ICT adoption on dimension like e.g. skill and access (Carter & Weerakkody, 2008). Furthermore, developing country contexts are expected to experience different barriers that do not exist in a developed country for a variety of reasons. For example the difference in connectivity infrastructure, across developed and developing (Chen et al., 2007) are expected to bring up new kinds of barriers in developing countries especially for citizen services. Introducing E-Government in developing countries is expected to require more far reaching efforts than those in developed countries (Schuppan, 2009).

Therefore the purpose of this paper is to comprehensively identify the barriers to e-Government services to citizens in developing countries. This research is also timely as many developing countries have committed significantly to e-Government (Gupta & Jana, 2003) and have at the same time experienced widespread failures of projects (Heeks, 2003). For example in the past decade there has been a significant surge in E-Government related activity in India. This is most noticeable in the way E-Government has been conceptualized in India in terms of its expected outcomes and delivery model; and also the way the government has gone about implementing E-Government at national and sub-national levels (Ray, 2010). However, barriers to implementation e.g. poor project management, remain that affect the project success rates (Ray, 2010). The transition from policy formulation to implementation still eludes many developing nations (Lau et al., 2008).

A clearer understanding of barriers to e-Government implementation in this context can help in improving the successes rate of projects.

**REVIEW OF LITERATURE**

The inability to identify, understand and then manage causes of failure is cited as a major cause of IS project problems such as cost and schedule overruns, unmet user requirements and ineffective system implementation (Alter & Ginzberg, 1978; Barki, Rivard, & Talbot, 2001; Boehm, 1991; Charette, 1991; McFarlan, 1981). Like most information technology based projects, e-Government projects too have been known to exhibit high failure rates (Heeks, 2003), indicating the need to understand and identify causes of failure. However there are significant differences between private and public sector organizations in terms of environmental factors e.g. market exposure, organizational environment transaction e.g. public scrutiny and expectation, and internal structure and process factors e.g. complexity of objectives and decision criteria (Rainey et al., 1976) that necessitates examining the barriers to e-Government afresh. At a conceptual level Heeks and Bhatnagar (1999) identified the main reason for failure of e-Government projects as the concept-reality. The concept-reality gaps pertain to the mismatch or gap between conception of a change brought about by IS and the current reality. These gaps can occur on Information, Technology, Processes, Objectives, Staff, Management and Other (IT-POSMO) dimensions. An example of qualitative analysis of the ITPOSMO framework applied to e-Government projects in Africa can be found in Heeks (2002). Few other studies have looked at very specific reasons of failure of e-Government projects. For example, Jaeger and Thompson (2003) assert that an e-Government system would fail if the government did not take an active role in educating citizens about the value of e-Government. Compounding this is the difference between developed and
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