

Chapter XIII

Users' Acceptance of E-Government: A Study of Indian Central Excise

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ABSTRACT

The study seeks to highlight the key variables affecting usage of e-government by internal users of Indian Central Excise. An e-government acceptance model is developed and empirically tested using the 163 usable questionnaire responses from internal users of the Indian Central Excise. A priority of the variables is set by calculating the "total effect" of each variable on "intention to use e-government." Further, the "total effect" is compared with "ratio of acceptance" and clear recommendations for the Central Excise are generated for increasing the usage of e-government among its users. The model developed here can be applied in other similar e-government projects to test the users' intention to accept the system.

INTRODUCTION

Information technologies (IT), comprising of the Internet, e-mail, database, word processing applications, and so forth, have changed the way people work and live, the governments being no exceptions. IT initiatives in government services known as electronic government, or e-government, are changing the way the government works

and interacts with citizens, businessmen, its employees, and other governments. E-government is supposed to provide information, services, or products through electronic means, by and from government agencies, at any given moment and place, offering an extra value for all participating players (Gupta, Kumar, & Bhattacharya, 2004). IT has the potential to transform government structures and to improve the quality of

government services. Technology provides two main opportunities for government: increased operational efficiency by reducing costs and increasing productivity, and the better quality of services provided by government agencies (Garcia & Pardo, 2005).

Being the largest democracy and having one of the largest government set-ups in the world, India offers a vast potential for effective implementation of e-government (Gupta et al., 2004). The number of Internet users in India is constantly on the rise, with the focus shifting on providing more and more government services electronically. The Indian central government and state governments have problems such as delay in processes, uncertainty, lack of transparency, corruption, and so on, in their various processes. In many successful implementations of e-government, the respective governments or government departments are able to get rid of such problems to a great extent (www.mit.gov.in). The e-government market grew by 18% in 2003-2004 and is the highest growing vertical in the domestic IT market (NASSCOM, 2005). In the tenth five-year plan (2002-2007) of India, government has allocated US\$4.92 billion to spend on the e-government implementation (www.mit.gov.in).

However, the failure rate of e-government project implementation is up to 85% in developing countries, which is quite high (Heeks, 2003). E-government acceptance by the end users depends on various factors, which are needed to be studied at the pilot stage of implementation and addressed while the project is on rollout. Therefore, acceptance or intention to use e-government of end users should be studied carefully to identify the various factors affecting the acceptance decision of an individual. This will help in reviewing and fine tuning the projects to achieve higher acceptability.

To identify the factors affecting e-government acceptance and also to develop a model for acceptance, literature was surveyed in the area of e-government acceptance and technol-

ogy acceptance. The literature survey offered the technology acceptance model (TAM) as a proven tool. Researchers within the information systems (IS) community in the past have sought to conceptualize, empirically validate, and also extend TAM to explain IS adoption in a variety of contexts. The important constructs of TAM are "perceived ease of use," "perceived usefulness," and "attitude towards using technology" (Davis, Bagozzi, & Warshaw, 1989). Another model on the same line of TAM is "Unified Theory of Acceptance and Usage of Technology (UTAUT)" (Venkatesh, Morris, Davis, & Davis, 2003); this model is considered to be a robust model in literature. However, this model does not deal with issues related to system security and strength of control, which are critical in e-government domain. This study includes these as added variables in its research model. The motivation for this study stemmed from a desire to lay down such a model, which highlights the factors that lead to acceptance or rejection of information technology by government employees.

Low system acceptance by the end users is one of the major hurdles to the proliferation of e-government projects. Few studies in the e-government acceptance highlights that usage level of an e-government would depend on a number of criteria viz. intention to use, attitude toward using, effort expectancy, performance expectancy, and so forth. In India there is probably no evidence of such research, however there are some studies carried out in other countries. In a study, Chang, Li, Hung, and Hwang (2005) used TAM in the Taiwan government's Internet tax-filers' system to explain the taxpayers' acceptance of the system. Other studies available on the tax system of Taiwan are by Wang (2003) and Fu, Chao, and Farn (2004). Tahinakis, Mylonakis, and Protogeris (2006) studied the Hellenic Taxation System in Greece applying TAM and concluded that increased participation of taxpayers through an electronic system would create a socioeconomic

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