

Chapter 8

Citizens' Adoption of Pay-to-Use E-Government Services: An Empirical Study

Amitabh Ojha

Indian Institute of Technology Delhi, India

G. P. Sahu

National Institute of Technology, India

M. P. Gupta

Indian Institute of Technology Delhi, India

ABSTRACT

Evidence exists that citizens' demand for pay-to-use e-government services is highly price-elastic. But research on citizens' adoption of e-government remains almost entirely pre-occupied with contexts wherein it is implicit that citizens would not face any monetary cost implications. The fact that Technology Acceptance model (TAM) and Perceived Characteristics of Innovating (PCI) do not factor in potential adopters' monetary cost perceptions is a plausible reason for such bias in research efforts. The paper posits a model wherein the value perceived by a citizen in government-to-citizen (G2C) online channel, and traditional public service delivery channel are antecedents of his or her intention to use the online channel. The model was tested in the context of the rail ticketing service of Indian Railways (a Department of India's federal government). Results support the hypothesized paths, and offer useful managerial guidance to encourage citizens' adoption. The paper discusses the prospect of certain adverse consequences for public administration and citizens, which could be linked to e-government and user charges, and ways to mitigate them. Research implications are also discussed.

INTRODUCTION

Today, as governments are increasingly turning to e-government led administrative reform, citizens' slow uptake of governments' online services poses a challenge for reform managers who are respon-

sible for the twin targets of improving the quality of public service delivery, and cutting down on operating expenses. On the other hand, citizens who do not embrace these online services, end up wasting precious time in government offices, time which they could have spent in an economically

DOI: 10.4018/978-1-4666-2458-0.ch008

productive activity or at leisure. Therefore, a less used government-to-citizen (G2C) e-government service represents a loss for the government and also the citizens. In addition, under-utilization of e-government services results in a low rate of return on funds invested to develop those services. That is a serious concern, considering that it takes substantial funds to create new e-government services, and it costs even higher to create citizen-centered e-government services (Bertot & Jaeger, 2008). In fact it might be difficult to sustain a severely under-utilized e-government service, particularly if the receipt of certain minimum user charges were essential for its financial viability. The problem can prove particularly acute in case of e-government services which are based on the public-private partnership (PPP) model. But in spite of the stated adverse consequences of low adoption of G2C e-government services, governments can't mandate the use of these services in the way they have been able to mandate the use of many government-to-business (G2B) e-government services. Adoption of e-government in the face of user charges cannot be taken for granted, because citizens' desire for more services from their governments does not necessarily imply their willingness to pay (Winter & Mouritzen, 2001). Therefore the demand for G2C online services is expected to be price-elastic, and there is anecdotal evidence that the adoption rate of G2C online motor vehicle registration renewal skyrocketed in Arizona, after the elimination of \$6.95 online user charge (Johnson, 2007). The aforesaid discussion points at the importance of studying citizens' adoption of pay-to-use G2C e-government services, an area which has remained largely ignored so far.

Central to the low adoption of G2C e-government services is the problem of digital divide, the complexity of which can be gauged from its multiple dimensions i.e. technology, telecommunication, economic, information access, and information literacy (Bertot, 2003). Needless to say, that e-government led administrative reform

programs need to be matched with concerted efforts at dealing with the digital divide problem. While digital divide keeps a large section of citizenry away from e-government services, it is important however, that citizens who already possess the requisite skills and resources, adopt the G2C online services in big numbers. Focus of the paper is on e-government adoption by the latter category of citizens.

This study proposes a research model to explain the aforesaid category of citizens' intention to adopt a pay-to-use G2C e-government service (which involves user charges), in preference to traditional service delivery (where user charges are not involved). The model is tested in the context of e-ticket service of Indian Railways (IR; a Department of India's federal government). For the sake of clarity on the study context, a brief introduction of IR, its e-ticketing service, and an explanation on the appropriateness of this context for the present study, has been included in the paper. The study's appeal however is not limited to the IR ticketing context, its central purpose being to: (1) demonstrate how the influence of user charges on citizens' adoption of G2C online services could be investigated; and (2) examine the broad implications of e-government user charges for public administration, and citizens.

LITERATURE REVIEW

Focus of the review presented here is on the role of potential (individual) adopter's monetary cost implications in technology acceptance. The review is organized along the following three information systems usage contexts: (a) information systems usage in organizational or institutional settings; (b) citizens' usage of e-government; and (c) business-to-consumer e-commerce. Technology adoption literature per-se is voluminous and has been the topic of several reviews and critiques, sources for which are provided in the sub-sections that follow.

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