

Chapter 15

Evaluating Citizen Adoption and Satisfaction of E-Government

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ABSTRACT

Governments at all levels are faced with the challenge of transformation and the need to reinvent government systems in order to deliver efficient and cost effective services. E-government presents a tremendous impetus to move forward in the 21st century with higher quality, cost-effective, government services, and a better relationship between citizens and government. This research considers theoretical foundations from the Technology Acceptance Model (TAM), the Web Trust Model (WTM), and SERVQUAL to form a parsimonious model of citizen adoption and satisfaction for e-government services. The authors find that usefulness, or end-user convenience, to be the principal determinant of e-government adoption and satisfaction, unaffected even when controlling demographic variables such as race, income, and education are introduced.

INTRODUCTION

Electronic government (e-government) has in recent years attracted much attention as scholars have suggested that by leveraging cutting-edge information technology, government may reap benefits of increased efficiency, effectiveness, and citizen communication with public sector agencies

(Chadwick & May, 2003; Ho, 2002; Melitski, 2001; West, 2004). E-government is defined as the application of information technology to make available Internet-based services between public sector agencies and citizens, private sector organizations, employees, and other nongovernmental agencies (Carter & Belanger, 2004, 2005). E-government offers potential impact on the business of government in two fundamental, yet crucial,

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ways: by improving service delivery, including costs; and by improving communication between citizens and government (Fountain, 2001).

The primary objective of this research is to analyze theoretical foundations from well-known models in e-commerce scholarship—the Technology Acceptance Model (TAM) (Gefen, Elena, & Straub, 2003; Gefen & Straub, 2000; Moon & Kim, 2001), the Web Trust Model (WTM) (Gefen et al., 2003; Belanger, Hiller, & Smith, 2002; McKnight, Choudhury, & Kacmar, 2002), and SERVQUAL (Devaraj, Ming, & Kohli, 2002; Parasuraman, Berry, & Zeithaml, 1988, 1991)—to form a model of the essential components that inform citizen adoption and satisfaction of e-government services. SERVQUAL, perhaps the most frequently used service quality measurement scale, is comprised of five service quality dimensions (tangibles, reliability, responsiveness, assurance, and empathy) that apply across traditional, i.e. not online, industries (Zeithaml et al., 1996). Specifically, the work of Carter and Belanger (2004, 2005) linking the Technology Acceptance Model and the Web Trust Model is uniquely leveraged to form a heuristic model which theoretically associates antecedents of e-government adoption with a citizen-based assessment of on-line service quality – a connection heretofore not advanced in the scholarly literature. Though this research is newly conceived, the desire is for public administrators to have a reliable model from which government agencies can more fully understand what impels citizens to adopt a specific e-government application or service, as well as understand what constitutes service quality.

This study links the three research areas in order to investigate the impact of Web-based tools on e-government adoption and satisfaction. We propose an integrated framework of e-government satisfaction and adoption. This framework suggests that a combination of factors – technology adoption, trust, and service quality – influence an individual's adoption propensity and service quality perception (Figure 1). While researchers

have continued to document differences between e-commerce and e-government (Jorgensen & Cable, 2002; Warkentin, Gefen, Pavlou, & Rose, 2002), e-commerce models continue to be utilized to examine adoption of on-line services in the public sector (Carter & Belanger, 2004, 2005). Indeed, certain scholars have specifically called for an interdisciplinary approach to more fully realize the impact of Internet technology on e-government participation (Tolbert & McNeal, 2003).

An extensive exploratory schedule can be developed from the proposed e-government adoption and satisfaction framework (Figure 1). Given the recent focus of research examining e-government program development (Cohen & Eimicke, 2001; Fountain, 2001; Ho, 2002; Moon, 2002; Thomas & Streib, 2003), as well as research probing user adoption of e-commerce (Gefen et al., 2003; McKnight et al., 2002; Carter & Belanger, 2004, 2005) in combination with the escalating push to develop innovative e-government services (Horrigan, 2004; Norris, Fletcher, & Holden, 2001), the question of interest is:

What technology adoption, trust, and service quality factors influence an individual's general proclivity to adopt e-government services and an individual's perceptions of e-government service quality?

Recent scholarship has been devoted to understanding the impact of e-government on the ability of public sector agencies to deliver services with increased efficiency and effectiveness (Chadwick & May, 2003; Fountain, 2001; Ho, 2002; Melitski, 2001; West, 2004, 2005). That e-government services, delivered via advanced information technology solutions, can provide benefits of enhanced efficiency, effectiveness, and citizen communication with public sector agencies is advantageous to elected officials, public managers, as well as to the citizenry. Indeed, as government agencies increase efficiency and ameliorate operating costs, citizens are increasingly able to access

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