

# Chapter 20

## Factors Affecting E–Government Technology Adoption Behaviour in a Voluntary Environment

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### ABSTRACT

*The purpose of this paper is to provide an empirical examination of the factors affecting voluntary eService adoption in a public sector work environment. The model examined was constructed following a thorough review of relevant literature on technology adoption through the framework of Theory of Interpersonal Behaviour. Structural equation modelling was used to examine a model assessed through participant responses to survey data for a sample of 515 respondents working in Australian City Councils. The results indicate that an individual's attitudes and beliefs have a significant influence on eService utilisation. Results also suggest that organisational conditions such as training, leadership support and organisational preparedness act to enhance eService utilisation indirectly through their effect on an individual's attitudes and beliefs. The current study provides a model of examining and explaining voluntary technology adoption behaviour in the workplace.*

### 1. INTRODUCTION

Technological advances including the internet encourage government sector and private sector to invest in web-based services around the world (Choudrie and Weerrakody, 2007). A central issue in the area of information systems research is understanding effective discretionary usage of technology by employees at work. In a voluntary environment access and availability of technologies does not necessarily ensure effective use of technologies (Thompson and Higgins, 1991, Veiga et al., 2013). Although access to relevant information technology infrastructure is assured for all administrative staff at Australian city councils (the population under examination), the degree of adoption of eService of a business unit is still

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a voluntary decision, made by employees or managers of the relevant business unit. eService usage in the government sector is often criticized for its slower pace of adoption and lagging far behind private sector initiatives (Weerakkody and Choudrie, 2005). Several studies examine factors that influence an individual's discretionary use of technology, such as personal computers, executive information systems, learning platforms, or the internet in the workplace (Thompson and Higgins, 1991, Bergeron et al., 1995, Chang and Cheung, 2001, Liu et al., 2010, Brown et al., 2010, Mitchell et al., 2012, Ngwenyama and Nielsen, 2014).

The central aim in this paper is to examine the effects of organisational change involving the introduction of new information technology on city councils in Australia. Models of organisational change involving the introduction of new technology have, for the most part, been limited to applications in private sector organisations. The current study examines the development of eServices in local government organisations, and how the introduction of this technology has been supported by change management principles and practices. Local government organisations are unique forms of organisation, which differ markedly from private sector business models. City councils are atypical form of public sector organisations, with organisational structures that have been stable for many years. City councils are typically considered to be resistant to innovation and are relatively inert compared to other forms of organisation (Newnham and Winston, 1997).

The current study seeks to overcome some of the identified weaknesses evident in prior research. Specifically the current study attempts to meet the identified need for workplace technology adoption research that look at multi-organisation samples, applies robust measurement scales, includes more expansive multivariate examinations of factors that influence technology adoption, and examine the influence of organisational as well as individual attitudes and beliefs on technology use and adoption (Thompson and Higgins, 1991, Pare and Elam, 1995, Al-Khaldi and Olusegun Wallace, 1999, Chang and Cheung, 2001, Jeyaraj et al., 2006, Coeurderoy et al., 2014).

## **2. LITERATURE REVIEW**

Australian local government, being the third tier of the Australian political system, has the power to influence community environments, service and infrastructure (Shackleton et al., 2004). The role of local government in Australia includes, not only traditional areas of infrastructure, but also the formulation of policies to meet community expectations (Shackleton et al., 2006). It is estimated that in Australia up to 80 percent of transactions between citizens and government take place at the local level (Shackleton et al., 2004). This high volume of direct public interaction makes local government a central feature of the democratic system of government. As a consequence of advances in information technology, interactions between citizenry and local and national government has undergone considerable changes since the 1980s (O'Toole, 2007, Shackleton et al., 2006, Bridge, 2012), and has had to overcome significant barriers in the adoption of eServices (Hossan et al., 2011). Innovative use of technology in the public sector is seen as a key vehicle for the continuous processes of interaction and negotiation of government and citizens (Lee et al., 2012).

Any interaction that a citizen might have with any government agency using electronic media can be considered as eService (Luling, 2001). In other words, any efforts of government to provide citizens with information and services they need, using a range of information and communication technolo-

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