



# A Study on Taxpayers' Willingness to Use Self-Service Technology-Based Online Government Services

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## ABSTRACT

*Technology is forming a society of do-it-yourselfers, in which customers can perform services on their own, without the help of live tellers. However, customers with insufficient knowledge of technology may not be ready for Self-Service Technologies (SSTs) to serve themselves, thus weakening their intent to adopt SSTs in delivering service. Identifying users' attitudes toward using online service via SSTs is a critical issue for providers, particularly for government agencies. This study presents a theoretical model to examine and explain taxpayers' willingness to adopt the personal income tax-filing system, which is a typical enhanced self-service information system (SSIS). Moreover, readiness to use technology has been addressed on the individual level in the context of mental status by revealing the effect of individual's beliefs on taxpayers' acceptance of online taxation systems (OTS). The managerial implications and recommendations are provided. [Article copies are available for purchase from InfoSci-on-Demand.com]*

**Keywords:** *Diffusion of Innovation (DOI); Perceived Readiness; Self-Service Technology (SST); Technology Acceptance Model (TAM)*

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## INTRODUCTION

Penetration of the Internet and the growing and diverse Internet population mean that many people are now using the Web for many different purposes. However, the advent and explosive growth of self-service technologies (SSTs) also raises complex managerial questions and issues for service providers. Firms realize that

providing SSTs does not guarantee heavy usage. Previous studies of the stock and travel sectors showed that even with heavy promotion campaigns, less than 2% of households trade stock online, and less than 1% of airline tickets are ordered on websites (Moon & Frei, 2000). A survey by European Commission (2005) found that globally only 45% of individuals with online access have used the internet to visit public-

sector websites. Individuals living in Iceland (68%), Finland (62%) and Denmark (56%) were most likely to use the Internet to obtain public sector information. Individuals living in the UK (31%), Lithuania (31%), Estonia (28%) and Bulgaria (24%) were least likely to have visited public sector websites. Meanwhile, a survey on virtual contact with public organizations in Austria found that 58% of individuals used public sites to download forms, and 43% conducted their requests entirely online. Only 41% adopted the internet to submit completed request forms, and only 40% utilized online services to pay invoices (Alcaud, 2006). These results indicate that over half the respondents in Europe did not yet feel entirely comfortable with adopting the Internet for fully electronic transactions.

The lack of use of the Internet may be because replacing of personal service with SSTs usually requires both the development of new knowledge and behavior associated with the service, and increased customer participation and responsibility in the production of the service (Lee & Allaway, 2002). Similarly, government agencies also often adopt online services, such as online voting, tax filing and license renewal, to provide services and promote citizen participation. The concept or construct of SST is frequently embedded in the web-based service system to improve the efficiency of customized service provision. The expected resulting benefits to the citizen include qualified and instant service, greater public access to information, fast response from agencies, and reduced waiting time to be served (Carter & Bélanger, 2005).

The public sector in Taiwan has recently adopted several e-service applications. Additionally, most government agencies in Taiwan adopt Internet-based technologies to give citizens direct access to their service support systems, also called online services. The Internet tax-filing system is one such service. Taiwan began introduced its online taxation system in 1998, following the rapid development and wide application of the Internet and wireless telecommunications technology, and the creation of a

backbone network in 1997. However, such an on-line tax filing service adopted electronic certification—which means citizens need to apply an electronic certificate and own a card reader, a type of SST's device, before using the service. The electronic certificate may cause a threshold for promoting e-taxation service. As many as 2,456,424 taxpayers declared online in 2007, accounting for 47.24% of the total tax declarations. Table 1 shows the numbers of returns of individual income tax with Internet filing each year, increasing from 348,156 (7.56% of all declarations) in 2002 to 2.45 million (47.24% of all declarations) in 2007. However, these figures reveal that over half the taxpayers still did not feel entirely comfortable with adopting the internet to file personal income tax. It is worth noting that taxpayers who used electronic certificates could download their income data directly from government websites, which made great convenience in taxation filing process. On the other hand, taxpayers that didn't use electronic certificates were not allowed to download their income data. Although it is not convenient in taxation data arrangement for taxpayers without electronic certificates, around 55% of 2.23 million and 53% of 2.45 million online taxpayers still used conventional way to file income tax via Internet in 2006 and 2007, respectively. Thus, examining and explaining taxpayers' willingness and attitude toward adopting the Internet-based personal income tax-filing system, which is a typical enhanced self-service information system (SSIS), for their income tax is a critical issue for the government agencies when providing online services to citizens.

This study proposes a research model based on TAM, DOI and PDM to examine and explain taxpayers' willingness to adopt the personal income tax-filing system for their income tax returns. Through the theories, the study advances an integrated model that explains intention to adopt SSTs. This study not only investigates the key factors that influence the initial SST trial decision, focusing particularly on taxpayer readiness variable, but also examines the relationships among established adop-

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