Information & Management 47 (2010) 308–315

Contents lists available at ScienceDirect

Information & Management

journal homepage: www.elsevier.com/locate/im

Impact of quality antecedents on taxpayer satisfaction with online tax-filing systems—An empirical study

Ching-Wen Chen *

National Kaohsiung First University of Science and Technology, 2, Juoyue Rd., Kaohsiung 811, Taiwan, ROC

ARTICLE INFO

Article history:
Received 10 January 2009
Received in revised form 4 December 2009
Accepted 13 June 2010
Available online 1 July 2010

Keywords:
Online tax-filing system
Taxpayer satisfaction
Information quality
System quality
Second-order factor analysis

ABSTRACT

This paper discusses taxpayer satisfaction with an online system for filing individual income tax returns. Online tax-filing system quality encompasses information, system, and service qualities, which are the antecedents of user satisfaction with any system. To measure online tax-filing system quality, a second-order measurement model was tested using higher-order confirmatory factor analysis. Hierarchical factor analysis supported the measurement model of IS quality in the research setting. Path analysis using structural equation modeling confirmed that the quality antecedents strongly influenced taxpayer satisfaction with the online tax-filing system. Furthermore, the factors of information and system quality were more important than service quality in measuring taxpayer satisfaction, demonstrating the importance to taxpayers of system outputs and processing ability. Based on the findings, implications for online tax-filing systems are discussed. Finally, limitations are presented.

© 2010 Elsevier B.V. All rights reserved.

1. Introduction

With the emergence of information and communication technologies (ICTs) there has been intensified competition and stimulated growth of most organizational functions and processes. Many organizations and governmental agencies are exploring the potential of using ICTs for service delivery. Today, e-government uses ICTs to promote citizen participation, publish information, provide services, and administer governmental systems. Government-to-citizen (G2C), government-to-business (G2B), and government-to-government (G2G) applications are becoming commonplace.

Taiwan has recently promoted several types of e-applications in its government agencies to provide their citizens direct access to service supporting systems (online services), for tax-filing, electronic motor vehicle and driver applications, public safety, health care, and electronic utilities. However, since Taiwan is expending considerable effort to provide enhanced services to citizens, it is critical that it knows whether the e-applications are meeting the citizen's needs. Specifically, we believed that user satisfaction with online service systems should be a key concern of government agencies or administration authorities, since these systems are intended to improve social services. We therefore studied taxpayer satisfaction with an online tax-filing system.

1.1. Electronic individual income tax-filing system in Taiwan

The National Tax Administration (NTA), the Taiwan government tax agency, is responsible for collecting both individual and corporate taxes, and offers individuals three main methods for filing their current personal income tax: manual, Internet, and two-dimensional (2D) bar-code.

Manual filing is the traditional method. During the May filing season, citizen taxpayers complete a standard government printed form by hand, and deliver it to the tax agency either personally or by mail. The tax agency then enters the tax return data into its computers either manually or via image processing. Data entry is tedious and it can take several weeks or months to complete the task accurately and correctly [9]. Citizens have become used to manually completing tax returns.

NTA initiated *two-dimensional bar-code filing*, similar to the 1040PC filing provided by the IRS of the U.S., simultaneously with *Internet filing*. A bar-code is simply a series of stripes (usually black) on a light background that can be scanned and read directly by a computer. Bar-codes are interpreted virtually instantaneously and without errors by a bar-code reading system. Two-dimensional (2D) symbols encode data by both their height and width, and thus a single symbol can store significantly more data than a one-dimensional symbol. For example, a symbol having a size of a large postage stamp can potentially store thousands of alphanumeric characters. The taxpayer can use tax software to enter the relevant data, and then simply use the program to perform the required calculations. Upon task completion, a two- to three-page paper tax return and the 2D bar-code symbol can be printed using any ink jet

* Tel.: +886 7 6011000x4111; fax: +886 7 6011042.
E-mail address: chingwen@ccms.nkfust.edu.tw.

0378-7206/$ – see front matter © 2010 Elsevier B.V. All rights reserved.
doi:10.1016/j.im.2010.06.005

Table 1
The number of personal income taxpayers of tax-filing methods.

Fiscal year	2004	2005	2006	2007	2008
Internet filing	1,021,629	1,713,441	2,230,074	2,456,424	2,689,042
	21%	35%	45%	47%	55%
Manual and 2D	3,854,782	3,239,829	2,691,884	2,743,457	2,228,593
Bar-code filing	79%	65%	55%	53%	45%
Total number	4,876,411	4,953,270	4,921,958	5,199,881	4,917,635
Total (%)	100%	100%	100%	100%	100%

or laser printer and mailed to the tax office. During filing, the 2D bar-code system works like a paper disk or paper electronic data interchange to store and transmit data. Additionally, a bar-code scanner transmits the 2D bar-code into the agency system, following the arrival of the tax return at the tax authority. This system offers clear benefits, since the scanning process is error-free and the data is captured quickly. Furthermore, most direct entry and indirect costs – to both taxpayers and the government – are eliminated. Furthermore, since some taxpayers have not obtained a government issued public key certificate, the system provides an alternative to filing electronically [7].

However, even though 2D bar-code is an electronic tax-filing method, it still requires taxpayers to print the tax return and deliver it to the tax agency. Since the government has invested considerable resources in building e-government infrastructure, including creating the Government Service Network (GSN) as the backbone network for e-government, we focused on the Internet tax-filing system, which can save resources by enabling paperless tax-filing.

With the rapid development and wide application of Internet and wireless telecommunications technology, as well as the initiation of a backbone network in 1997, Taiwan began using its online taxation system in 1998. As many as 2,690,000 taxpayers filed online in 2008, representing 54.7% of all filings. Table 1 shows that the number of individual income tax returns filed online increased from 1.02 million (21% of all taxpayers) in 2004 to over 2.68 million (55%) in 2008.

The Internet filing tax system helps tax agencies save money on printing and distribution, accelerate processing, and increase tax collection accuracy. Additionally, the system offers faster refunds on overpayments.

2. Literature review

2.1. User satisfaction with information systems

The measurement of information system success has been a focus of research interest since the mid-1960s. Studies examining methods of measuring information system success date back to the early 1970s and focused on the search for identifiable and easily measured surrogate parameters and constructs [21].

Based on an extensive review of publications on IS effectiveness, many researchers concluded that the development of a single convergent measure of IS was unlikely. However, a model of IS success was introduced; it incorporated six aspects: system quality, information quality, use, user satisfaction, individual impact, and organizational impact [5]. Information quality and system quality, representing semantic and technical levels, respectively, were postulated as the two key antecedents of user satisfaction. *Information quality* is typically assessed by measuring information attributes, while *ease of use* is assumed to represent *system quality* [6,18].

DeLone and McLean re-examined their model using 144 relevant data sets and added service quality to their original model. DeLone and McLean also recognized that measures of IS success should include service quality as an additional antecedent to user satisfaction. Consequently, their newer model is shown as Fig. 1. This adopted information quality, system quality, and service qualities as the main antecedents of user satisfaction, a measure of recipient response to the use of the output of an information system. Furthermore, the revised model adopted information quality as the measure of information system output. The measure of the information processing system itself was termed *system quality*. Finally, *service quality* was used to measure the quality recognition of special services on the IS.

The updated model, provided a useful starting point for assessing the benefits of IS, since it was considered accurate in measuring IS success. Additionally, because of their inherent face validity and the availability of reliable measurement instruments, such as satisfaction questionnaires, measures of user satisfaction became the most widely utilized indicators of system success. Our study thus examines and measures user satisfaction with online tax-filing system using the same factors.

2.2. Quality antecedents

Information quality depends on user perceptions of the value of the IS output. Thus, most of its measures are perceptual, including accuracy, precision, currency, output timeliness, reliability, completeness, conciseness, format, relevance, understandability [10]; report usefulness, etc.

Livari [11] and Delone and McLean [3] characterized system quality as the degree to which an information system possesses desired characteristics, and measured it using four scales: convenience of access, system flexibility, system integration, and response time. Since system quality measures the information processing system itself, the background characteristics of the system under study need to be outlined before developing measuring instruments.

Service quality is an elusive and abstract construct. In marketing research, SERVQUAL was developed to assess general service quality. Since IS includes a significant service component, SERVQUAL, consisting of five dimensions (tangibles, reliability, responsiveness, assurance, and empathy), was found to be applicable to IS.

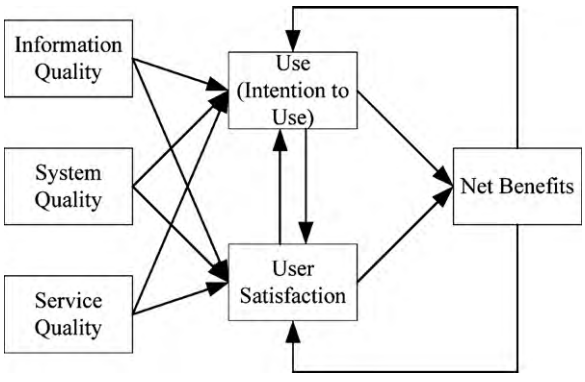

Fig. 1. Revised IS success model of DeLone and McLean.

Download English Version:

https://daneshyari.com/en/article/553981

Download Persian Version:

https://daneshyari.com/article/553981

Daneshyari.com