



Measuring the success of the Greek Taxation Information System

Jordan Floropoulos, Charalambos Spathis*, Dimitrios Halvatzis, Maria Tsipouridou

Aristotle University of Thessaloniki, Department of Economics, Division of Business Administration, 54 124 Thessaloniki, Greece

ARTICLE INFO

Article history:

Keywords:

Electronic government (e-Government)
Taxation Information Systems
Success
Taxis
Greece

ABSTRACT

The transformation of many governments all around the world into new forms, namely, electronic government (e-Government), could not leave the Greek government unaffected. Therefore, it initiated an e-Government project related to national information systems and finance services, the Greek Taxation Information System (TAXIS). The purpose of this paper is to investigate the success of TAXIS from the perspective of expert employees, who work in public taxation agencies. This topic is interesting, because TAXIS is applied in a tax-driven country, under a mandatory setting. Also, it is the first time that the success of this project is examined, from the perspective of employees, using IS success models. The study adapts DeLone and McLean [DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information systems success: A ten year update. *Journal of Management Information Systems*, 19(4), 9–30] and Seddon's [Seddon, P. B. (1997). A respecification and extension of the DeLone and McLean model of IS success. *Information Systems Research*, 8(3) 240–253] information systems success models. The model developed includes the constructs of information, system and service quality, perceived usefulness and user satisfaction. The results provide evidence that there are strong connections between the five success constructs. All hypothesized relationships are supported, except for the relationship between system quality and user satisfaction. The empirical evidence and discussion presented can help the Greek Government improve and fully exploit the potential of TAXIS as an innovative tool for taxation purposes.

© 2009 Elsevier Ltd. All rights reserved.

1. Introduction

Starting in the early 1990s, the revolution of information and communication technologies, which has caused major and rapid changes in the daily life of people, could not leave governments unaffected. Having realized that, many governments all around the world are being transformed into new forms of government, namely, electronic government or e-Government (Akman, Yazic, Mishra, & Arifoglu, 2005), in order to strengthen and sustain their position in the global competition (Sharifi & Zarei, 2004). The level of progression has reached different stages of maturity in these countries, depending on specific social, political, economic and cultural factors that are present in each country. In a 2006 survey of the European Commission (EC) of e-Government initiatives, measured by two indicators, Greece scored 62% for the online sophistication indicator, with Austria delivering the best score of 95%. For the fully availability online indicator, Greece scored 30%, while Austria reached again the highest score of 83%. In both cases, Greece occu-

piated the 22nd position among 28 countries (European Commission, 2006).

The concept of e-Government has attracted the attention of researchers, who have been developing theoretical models in an effort to gain a better understanding of this endeavor. It is evident, though, that there is no single definition of e-Government. Simply speaking, e-Government reflects current visions for public administrations towards modernization (Wimmer, 2002) of democratic practices, using new organizational processes and technologies in order to make everyday life easier for everyone.

From the perspective of interactions of different sectors of one country with each other (Sharifi & Zarei, 2004), e-Government may be divided into four categories (Evans & Yen, 2006; Siau & Long, 2005): Government to Government (G2G), Government to Business (G2B), Government to Employees (G2E) and Government to Citizens (G2C). Though e-Government has clear benefits for governments themselves, businesses and employees, it is citizens that actually receive the widest array of benefits (Jaeger, 2003).

As governments develop e-Government systems to deliver these services, there is a need for evaluation efforts that assess their effectiveness (Wang & Liao, 2007). Such evaluation efforts can enable government agencies to determine if they are capable of doing the required task and delivering services as expected (Gupta & Jana, 2003). However, while Information Systems (IS) success models

* Corresponding author. Tel.: +30 2310996452; fax: +30 2310996452.

E-mail addresses: jordanf@econ.auth.gr (J. Floropoulos), hspathis@econ.auth.gr (C. Spathis), dchalvat@econ.auth.gr (D. Halvatzis), mtsipou@econ.auth.gr (M. Tsipouridou).

have been widely investigated, the factors which best measure the success of e-Government IS need further investigation.

This study focuses on the assessment of G2C IS success. An e-Government project related to national IS and finance service is the Greek TAX Information System (TAXIS), which is provided by the Ministry of Finance. This study intends to empirically investigate the perspective of the expert taxation agency employee, who is the link between the government and the citizen. More specifically, the purpose of the study is to assess the success of TAXIS, by developing an e-Government IS success model, based on DeLone and McLean (2003) and Seddon's (1997) models. The model developed adopts the constructs of information quality, system quality, service quality, perceived usefulness and user satisfaction.

The topic is interesting for three salient reasons. First, to the best of the authors' knowledge, it is the first time that the success of this complex project is quantitatively examined from the standpoint of taxation agency employees, using IS Success models. Gouscos, Mentzas, and Georgiadis (2001), discuss the concepts of e-Government and e-services, but they emphasize mainly on the online component of TAXIS, TAXISnet, and discuss its positive outcomes. Furthermore, Tsiavos, Smithson, and Kotyvovs (2002) explore the development and evolution of TAXIS as a case of transition from e-Government to e-regulation. Relative to TAXIS, they found that the use of TAXIS increased the efficiency of dealing with taxpayers in the offices, cut the number of repeated visits and reduced the queues. However, they interviewed only four employees—users of the system, which limits their results. Second, Greece is a Euro-Continental country, where accounting standards are closely related to taxation legislation, and both are characterised as excessively bureaucratic and detailed. Taxes are perceived to be unfairly high, resulting in tax evasion strategies, as well as creative accounting (Baralexis, 2004; Spathis, 2002). It is evident that there is a governmental need to reduce these phenomena, and TAXIS, *inter-alia*, is expected to assist this endeavour. Third, it is interesting, because employees work in a mandatory setting, and do not have a choice; the adoption and use of TAXIS is a challenge that cannot be ignored.

Our results indicate that there are strong connections between the five success constructs; the expected relationships from system quality, service quality and information quality to perceived usefulness and user satisfaction, as well as the relationship between perceived usefulness and user satisfaction are supported. The only hypothesis that is not supported is the system quality and user satisfaction relationship.

The remainder of this paper is organized as follows. In Section 2 the IS success literature is reviewed to facilitate understanding of current research. In Section 3 a description of TAXIS is given, with the intention to acquaint the reader with the reality of the Greek TAXIS. Section 4 presents the research model, hypotheses, definitions of constructs and data. After that, the analytical results are reported in Section 5. Finally, the study concludes with a summary and discussion.

2. Literature review

During the past decades there have been many efforts to identify the factors that contribute to IS success. Despite the large number of empirical studies, the meaning of IS success has been elusive, and research has not found much agreement (Garrity & Sanders, 1998). On the contrary, the consensus among researchers appears to be that multiple measures may be used. Some of the early studies have identified the following measures of success: ease of use (Doll & Torkzadeh, 1988), information quality (Bailey & Pearson, 1983), use (Davis, 1989), user satisfaction (Bailey & Pearson, 1983; Ginzberg, 1981) and usefulness (Davis, 1989; Franz & Robey, 1986).

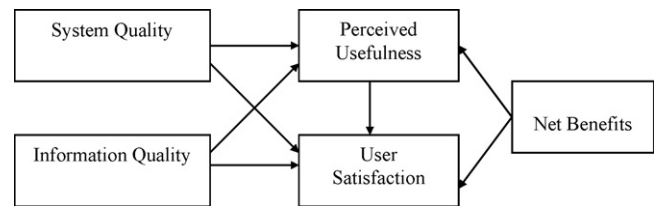


Fig. 1. Seddon's (1997) IS success sub-model.

Many authors regard DeLone and McLean's (1992) study as a major breakthrough in this field of research.

DeLone and McLean (1992), in their influential paper, stated that: "...in searching for an IS success measure, there are nearly as many measures as there are studies" (p. 61). However, after a comprehensive literature review of 180 empirical studies, they managed to classify the dimensions of IS success into six major categories: (1) system quality, (2) information quality, (3) use, (4) user satisfaction, (5) individual impact, and (6) organizational impact. Furthermore, DeLone and McLean (1992) argued that these components are interrelated and interdependent, forming an IS success model. This taxonomy, although not empirically tested, has become a source of reference for subsequent studies.

DeLone and McLean (1992, 2003) identified, in total, more than 200 journal articles that cited their IS success model, and various empirical studies that have explicitly or implicitly tested the multidimensional associations of the model. Several researchers, depending on their study objectives, either adopted this interrelationship model and expanded it with modifications (Coe, 1996; Garrity & Sanders, 1998; Ishman, 1996; Rai, Lang, & Welker, 2002) or supported the left-hand part of the model, which assumed the relationships that 'system quality and information quality' cause 'system use and user satisfaction' (Igbaria & Tan, 1997; Seddon & Kiew, 1996).

Among these studies, Seddon and Kiew (1996) tested a modified version of DeLone and McLean (1992), with the three major differences being the following: (a) use was replaced by usefulness, (b) a new variable, system importance, was added to help explain variations in users' perceptions of usefulness and user satisfaction, and (c) the simultaneous causality between use and user satisfaction was replaced by one-way causality, i.e., usefulness causes user satisfaction, and not vice versa. Their empirical results provided substantial support for the "up stream" two thirds of DeLone and McLean's (1992) model.

Nevertheless, the well-known paper of DeLone and McLean (1992) received considerable criticism by Seddon (1997). He claimed, among other things, that the model is confusing, because it combines causal and process explanations of IS success, which leads to misinterpretations of the use construct. Accordingly, he respecified the model of IS success, and split the original DeLone and McLean model into two variance sub-models, one variance model of IS success, and one variance behavior model of IS use. Overall, Seddon's model included three types of variables: measures of information and system quality, general perceptual measures of net benefits of IS use, and system use as behavior.

In this study, Seddon's sub-model of IS success is of particular interest, where system quality and information quality are retained (Fig. 1). These two dimensions have a causal impact to two constructs measuring the net benefits of system use: perceived usefulness, which replaced the construct use from the DeLone and McLean (1992) model, and user satisfaction. Additionally, it is argued that perceived usefulness influences user satisfaction, and not vice versa. Furthermore, the net benefits from system use to individuals, organizations and society are represented in the model with the net benefits construct. These net benefits are expected to have a direct causal connection with usefulness and satisfaction.

Download English Version:

<https://daneshyari.com/en/article/1026059>

Download Persian Version:

<https://daneshyari.com/article/1026059>

[Daneshyari.com](https://daneshyari.com)