Chapter 4

The Digital Divide vs. the E–Government Divide: Do Socio-Demographic Variables (Still) Impact E–Government Use among Onliners?

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ABSTRACT

E-government is beneficial for both citizens and public administrations. However, there are great differences in citizens’ e-government usage and, thus, there exists a gap between adopters and non-adopters of e-government services. Most related studies explore e-government acceptance on the basis of the entire population, while investigation of onliners rarely takes place. However, being online is a necessary pre-requisite for consuming Internet-based e-government services. Against the background that the number of Internet users is increasing steadily, the authors identify the need to differentiate general Internet adoption (digital divide) effects and e-government-specific divide effects. In the study, they develop a research framework, where the cumulative effect of e-government adoption (among all people) is split into (1) the digital divide effect and (2) the e-government divide effect (among Internet users). The authors derive three corresponding research models and examine the influence of socio-demographic factors: age, gender, income, and education. They test the research framework using comprehensive survey data (n = 1930). Analysis of the results justifies the separation of the e-government divide effect from the cumulative effect of e-government adoption, because the factors influencing e-government usage among the entire population and among onliners are proved to be different. Implications for theory and recommendations for practice are discussed. The findings reveal two important success factors for e-government: citizens’ Internet literacy and e-government services targeted at lesser-educated citizens.

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INTRODUCTION

Modern Information and Communication Technologies (ICT) provide tremendous opportunities. Especially the Internet has changed massively the ways of living and communicating in the last 20 years. The information revolution is transforming government, just as it is still transforming other aspects of our lives, making the Internet an appropriate medium for enhancing government-to-citizen interaction (Thomas & Streib, 2003).

Electronic government (e-government) services offer numerous benefits to all stakeholders including citizens, government and businesses (e.g. Al-Shafi & Weerakkody, 2009; Choudrie & Dwivedi, 2005). This has motivated public administrations in most developed countries to implement an increasing number of e-government initiatives and to try to encourage their usage. Research has shown that ICT and Web-based public services can reduce corruption, inefficiency, and ineffectiveness and, therefore, increase public trust (e.g. Welch, 2004). Moreover, unlike organizations in the private sector, government agencies are in charge of making their information and services available to everyone (Bélanger & Carter, 2009). And as e-government services are usually more cost-efficient than services in-person, administrations need to understand the factors influencing their adoption.

Although e-government services are aimed to be embraced by all citizens, the uneven distribution of computer access and skills hinders the governments’ intentions to make their online services equally accessible and beneficial (e.g. Bélanger & Carter, 2009). The so-called “digital divide” was named as one of the major obstacles for e-government acceptance (e.g. Bélanger & Carter, 2009; Huang, 2007). Digital divide, which exists in most countries, refers to the gap between people who have access to ICT, as well as knowledge required to use them, and those without such access or skills (Cullen, 2001). Among the most popular, but not always helpful measures for bridging the Internet-related digital divide are free of charge computer courses for excluded groups, as well as free Internet entry points (e.g. Reffat, 2006).

Contemporary technology acceptance and digital divide research (e.g. Agarwal, Animesh, & Prasad, 2009) shows that the socio-demographic factors (in this article also called digital divide variables) influence ICT and, in particular, Internet acceptance. Research consistently identifies that men are more likely to accept the Internet than women, age is negatively related, but income and education tend to be positively related to Internet approval (e.g. Demoussis & Giannakopoulos, 2006). Few previous studies, which analyzed the effect of digital divide variables, such age (AGE), gender (GEN), income (INC), and education (EDU), on another technology, namely e-government (e.g. Choudrie & Dwivedi, 2005), showed similar results: AGE has a negative influence, GEN has a positive influence in case it is male, both INC and EDU have positive influence on e-government acceptance. However, the absolute majority of these studies examined entire population making no distinction between Internet users and non-users. At the same time, before using e-government services one first needs to be online. Therefore, the attained findings might be distorted due to existing effect of digital divide variables on general Internet acceptance.

The aims of this paper are to examine the influence of socio-demographic factors on the adoption of e-government services and to check, whether this effect is different when considering all people (Cumulative Effect) and when taking into account only those respondents who are Internet users (e-government Effect). Socio-demographic factors are of great importance to governmental decision makers, as they design e-government services in a way that they fit specific user groups (e.g. senior citizens). A coherent understanding of the different effects and the different socio-demographic user groups, thus, forms a success factor for e-government implementation. Consequently, we address the following research questions (RQs):