Chapter 3
Evaluating the Impact of E–Government on Citizens: Cost–Benefit Analysis

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ABSTRACT
Since the early 1990s, the trend of e-government has attracted scholarly attention to the issue of how governments apply the information and communication technologies (the ICTs) in different services. While most studies focus on “what” and “how” questions of e-government, relatively little literature addresses the issue of “to what effect” it has on citizens. To fill this void, from user-centric perspective, this study examines Taiwan’s e-government performance, which has been ranked by international institutions as one of the top performers worldwide. The authors use a telephone interview data set from a survey conducted in 2007 with a random sample of 2000 respondents to analyze what impact the ICTs applications in administrative service and democracy improvement have on citizens in terms of cost and benefit. The authors’ findings show that e-government has had a significant, positive impact on citizens regarding their time saving, perception of information credibility, and satisfaction with the government. The results also suggest that the ICTs facilitate broader distribution of political information, a key to the success of e-democracy. The authors conclude this chapter by proposing suggestions for further strategic planning and critical research issues.

INTRODUCTION
With the advent of new information and communication technologies (ICTs), e-government has been one of the important innovations that have greatly reshaped public administration since last decade. Owing to the belief that the ICTs can significantly improve the efficiency and effectiveness of public services, e-government has brought many new issues, models, debates, and theories into public administration research. Among these newly emerged areas, one important but relatively unexplored topic is the effects of e-government. What is the e-government impact on stakeholders? Have...
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e-government users received better service quality than traditional government service users?

With regard to these questions, existing research provides insufficient evidence-based answers. This void is partly attributed to the fact that previous academic research lacked a linkage with practices and lacked attention in considering the impact on e-government stakeholders (Heeks and Bailur, 2007). It is also because the focus of most research is mainly placed on e-government providers (Reddick, 2005) rather than service receivers. A tech-centric e-government initiative would fail since its policy process would ignore the perspective from citizens (Saxena, 2005).

In order to ensure that e-government efforts are indeed invested in the right places and direction, this chapter argues that the citizen-centric e-government impact should be continuously and precisely assessed. Only a responsive and customer-oriented e-government policy can play a permanent role in society.

The purpose of this chapter is to display the e-government impact on citizens through a citizen-centric perspective. We examine the case of Taiwan’s e-government service by analyzing telephone survey data conducted in 2007 on e-government users and non-users. Taiwan has been ranked as one of the top performers in e-government in the new millennium. The findings on this benchmark case should have implications for other countries and for policy makers in Taiwan in developing next-step strategy. This chapter uses Taiwan’s case by comparing e-government service users and traditional government service users and aims to investigate what citizens have received from e-government and what its impact is on citizens. This is not a top-down e-government evaluation, but an assessment of citizens’ gains from e-government usage. In the next section, we review earlier studies about e-government evaluations to illustrate the achievements and gaps in this field. Based on this review, Section III constructs an analytical framework and elaborates the measurement and data collection. Sections IV and V present our results and discuss our findings, respectively. The last section concludes our study by proposing a further research agenda.

LITERATURE REVIEW

Based on the perception that the ICTs can be a powerful tool to enhance the efficiency and effectiveness of public services and to improve the quality of public participation, modern democratic nations have been recognizing them as an important part of public governance since the early 1990s. In particular, “e-government” is the most significant innovation during this period of time both in academia and in the practical arena. The emergence of e-government could be traced to the accompanying report of the National Performance Review, which was called “Reengineering through Information Technology” in the Clinton Administration (Lenk & Traunmuller, 2002). Since citizens are the principal service receivers of e-government, citizens’ perspective regarding what the e-government services bring to citizens’ life should be important. There have been highly recommended qualifications that e-government has to satisfy users’ needs (Horan et al., 2006). This argument brings the first significance of assessing the impact of e-government on citizens. Unfortunately, most existing e-government research focused on the perspective from the supply side (Reddick, 2005), not the (user-centric) demand side. Whether there is a gap between the perspectives of citizens and bureaucrats is unknown (Moon and Welch, 2005), and the bureaucrats may not be aware of whether e-government achievements have already met citizens’ expectations.

The need for an e-government impact assessment could also be found in the process of the e-government value chain (EVC, Figure 1). EVC refers to a model that illustrates how e-government turns inputs into outcomes (Heeks, 2006).

A well-developed e-government research field is supposed to cover all of the components in...