

Chapter 8

An Empirical Effort to Validate Electronic–Government Adoption Model

Mahmud Akhter Shareef
McMaster University, Canada

Vinod Kumar
Carleton University, Canada

Uma Kumar
Carleton University, Canada

ABSTRACT

This chapter is developed from research that investigated and identified the critical factors that contribute to the adoption of Electronic-Government (EG) by the demand side stakeholders, i.e., the end users of EG. The research also validated the EG adoption model (GAM, Shareef et al., 2010) for citizens at different levels of service maturity of EG. To accomplish that task, this chapter provides the methodology and the statistical analysis of the research demonstrating theory development through quantitative research. Selecting an appropriate method of statistical analysis, preparing and presenting data, accurately analyzing statistical data, interpreting data in depth, and drawing a comprehensive conclusion from the results are significant parts of research and have the potential to validate and generalize a model.

This chapter then organizes results obtained from statistical analysis and interprets the findings. Finally, the chapter presents EG adoption models for different levels of service maturity. The five sections of the chapter with sub-sections present the theoretical design, methodology, analysis, discussion, and conclusion of the study.

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1. THEORETICAL DESIGN

To discover the plausible factors affecting adoption of EG by citizens at different levels of service maturity, we have used the adoption model of EG by citizens (GAM) proposed by Shareef *et al.* (2011). The authors developed this model from an extensive literature review and theory analysis related to EG, information and communications technology (ICT), E-commerce (EC), psychology, sociology, and marketing and validated it in Canada, a leading country in adopting EG. We used the same questionnaire used by Shareef *et al.* (2011) to validate the GAM-S and GAM-I models. These two models represent the adoption models for EG at the static stage (where users can only view government information and download forms, which is one-way communication) and interaction stage (where users can interact with government by sending e-mails for any inquiry or chat, two-way communication). We borrowed the definitions of dependent variable adoption from Shareef *et al.* (2011).

Adoption is “the decision to accept and use an EG system to view and/or collect information, and/or download forms, and/or interact with, and/or seek government services, and/or search for queries, and/or transact to pay for different government services as the user requires with positive perception of receiving competitive advantages”.

Adoption 1: “Decision to accept and use an EG system to view, collect information, and/or download forms for different government services as the user requires with the positive perception of receiving a competitive advantage”.

Adoption 2: “Decision to accept and use an EG system to interact with, and seek government services, and/or search for queries for different government services as the user requires with the positive perception of receiving a competitive advantage”.

All the exogenous and endogenous variables of the primary model (Shareef *et al.*, 2011; shown in Figure 1) were operationalized through the

questionnaire used in the same study. Shareef *et al.* (2011) selected the scale items of the two phases of adoption in the following way:

- a. Three items are selected from the Static or Publishing stage where tasks are related to only viewing and collecting information and downloading forms under Adoption 1.
- b. Three items are selected from the Interactive stage where two-way communication has been established, such as e-mail, chat room, request for information, and statements under Adoption 2.

2. METHODOLOGY

This study has been conducted in New York City, USA, using the residents of the city. We selected this venue for the following purposes:

1. The USA is the primary developer of the EG system. This country put enormous efforts into reforming public administration to make the system efficient and competitive with the private sector. In terms of reengineering, reformation, implementation, and adoption of an ICT-based EG system at the local, regional, and federal level, the USA is a leading country. This country has developed top quality and maturity in offering EG services in the static, interaction, and transaction stages (Accenture, 2005).
2. New York is a global city with a prominent and obvious multi-cultural population. Sampling variability by capturing the perceptions of citizens from different cultures, races, and nationalities can be ensured in New York in the best way, which is a precondition for justifying the findings.
3. In the case of EG implementation in the different boroughs, this city is a global leader. Other governments across the USA and also countries across the world are seeking

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