Chapter 80

Evaluation of Theories and Information System Adoption Drivers in Government Organizations:
Using a Systematic Literature Review Process

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ABSTRACT

The suitability of current Information System (IS) adoption models is anachronistic when uniformly applied across regions in developing economies, including Latin American (LAT) countries where the context varies from the accepted norm. From the premise that the major ingredients of adoption studies are drivers whose relationships are encapsulated into theoretical models, this chapter present a comprehensive Systematic Literature Review (SLR) process convergent towards the critical selection of reliable scholarly sources in order to identify empirically supported drivers of IS adoption successes and assesses their applicability in public organizations situated in LAT, as not for profit environments. Participants from Public Ecuadorian Organizations were sought out as a focus case to gather opinions and scrutinize identified drivers to demonstrate the depth of this problem. The study offers an overall comprehensive rationalization of proposed drivers, and the identified need for an adapted IS adoption theory for LAT contexts.

INTRODUCTION

Information Systems (IS) in government organizations of developing economies are often overlooked by those conducting studies on technology acceptance and adoption. In particular, researchers look past the context of developing economies, such as Latin America (LAT) where opportunities to carry out studies are not readily available or difficult to come by. Regardless, local governments, as not for profit organizations, often struggle with such technology because it is undeveloped, under-resourced and it often does not live up to the expectations of those who have developed it. From a research integrity viewpoint, challenges remain in terms of how such economies successfully develop and adopt technology. The authors argue that current IS theories related to technology adoption have not adequately studied this context. For the purpose of this study, public organizations in Ecuador are looked at as a case in point to illustrate the research process applied.

The objective of this chapter is to illustrate the rigorous process that is required, by starting with a thorough Systematic Literature Review (SLR) process. This is to identify and homogenize relevant drivers of IS adoption. These drivers and the related theories −in some cases viewed as models− proposing such drivers are applied in our analysis with the purpose to understand adoption in the context of local government organizations in LAT. This research was sparked by a lack of IS adoption literature concerning public government organizations in LAT regions, despite the notorious overall volume of literature in this context. It is also supported by a concern that almost no scholarship exists that explores how these developing economies adopt and use IS and Information Technology (IT) in general.

The study begins with the identification of existing theories and proposed factors as drivers of IS/IT adoption, IS success, or software usage that have been associated with the successful adoption of IS in organizations. A general explanation of the analysis and the possible applicability of existing theories used in IS adoption to LAT regions then follows (sections 1 and 2).

First, to ensure a sound critical analysis of the existing research on the topic (Hart, 1998), an SLR was conducted as the key relevant part of the current investigation. This method uses a more rigorous and well-defined approach to literature review that helps to answer well-focused research questions more effectively (Cronin, Ryan, & Coughlan, 2008) (sections 3, 4 and 5). Second, from extracted data obtained through the SLR process, a rationalized set of empirically supported drivers of systems adoption success are determined (section 6). Third, drivers identified are also organized by control characteristics as is suggested by the existing literature examined. This was done in order to compare which group of the identified drivers is considered more relevant contextually in LAT and from the existing studies that emerged from the SLR process. Fourth, the set of drivers obtained was shown to local practitioners and IS/ICT experts working in Public Ecuadorian Organizations (PEOs) and used as a focus case study, to gather opinion about the relevance given to such drivers in local LAT organizational environments (section 7). Subsequently, as part of the analysis process it was noted that, contrary to the existing literature identified during the SLR process (mostly from developed countries), local practitioners and experts give more relevance to drivers related to technological infrastructure aspects rather than to other subjective aspects (section 8).

This chapter concludes with a rationalized list of adoption drivers put forward as possible candidate drivers of Successful IS Adoption (SISA) in local public organization within an LAT context. However, the need of further research to examine particular cases of IS adoption in local LAT contexts is suggested in order to strengthen the outcomes (section 9). Overall, the dentification of a refined set of drivers obtained through the detailed SLR process undertaken and scrutinized by individuals working

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