Examining the Factors of Open Government Data Usability From Academician’s Perspective

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ABSTRACT

This article examines factors that can be argued to influence the academician’s behavioral intentions in using open government data (OGD). Policy-makers and practitioners will determine policy instruments in increasing acceptance and use of OGD by maintaining a good understanding of these factors. In this article, Rogers’ Diffusion of Innovations (DOI) theory has been proposed and used in order to empirically examine these factors taking perceived characteristics of innovations. Relevant hypotheses have been developed through the literature review, forming a preliminary research model, while respective influences of the factors on the behavioral intention to use open government data have been statistically tested. Results have shown that compatibility and voluntariness have had a strong influence on behavioral intention, whereas a 66.2% variance has been found in academicians’ behavioral intentions to use open government data.

KEYWORDS

Academician, Adoption, Behavioral Intention, Developing Country, Diffusion of Innovations, Factors, Open Data, Open Government Data, Pakistan Data Portal

INTRODUCTION

Our society is advancing towards a knowledge-based and service-oriented, globalized world. Data is considered a vital prerequisite for knowledge creation, and for the delivery of different services. Therefore, data is argued to be not something that should not be stored away from the public, but rather it should be made available for free use (Hossain, Dwivedi, & Rana, 2016). The demand for open data has been catalyzed through three different aspects. These include the facts that firstly citizens now have a sense of ownership in governance and politics, secondly there have been recent technological advancements that have facilitated individuals’ ability to access, learn, store, analyze, link and share data and information, and lastly there has been speedy and substantial growth of virtual social networks. Web 2.0 technology has also facilitated data interoperability, through which citizens are collectively becoming active producers of data, rather than just passive recipients (Charalabidis, Loukis, & Alexopoulos, 2014). As a result, there is an absolute need for open data, while its growth and development should also be encouraged.

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Open Data is a philosophy or strategy which enables public sector data to be placed on web portals or platforms, freely accessible through relevant technologies (Hossain et al., 2016). These platforms support the release of nonperson-specific data for application in further developments. On the one hand, open data facilitates governments and business organizations to make policy-decisions through public contribution, while on the other hand it facilitates free and easy access by the public, from time and cost-saving viewpoints - this offers a route for future advancements (Attard, Orlandi, & Auer, 2016). In this respect, governments in developed and developing countries are opening datasets that cover all disciplines which the public may be interested in, in order to promote transparency, accountability, innovation and development.

Open data brings many political, social, economic, operational and technical benefits. It facilitates greater public participation in government decision-making and policy development, it builds public trust in governments, it increases transparency and accountability, it creates new social services, and it reduces corruption (Attard, Orlandi, Scerri, & Auer, 2015). According to Misuraca and Viscusi (2014), open data helps stimulate economic growth by giving business data to the public, opening space for innovation and new product development, and helping establish new marketplaces. In this regard, McKinsey analysts have estimated that the availability of open data will result in an economic boost of $3 million, allowing decisions to be made through the data’s application (Dawes, Vidasova, & Parkhimovich, 2016). Through open data, users can gain access to public sector information, which they can then easily reuse and distribute, while also making real-time measurements, optimizing administrative processes, and further encouraging its usage (Kaasenbrood, Zuiderwijk, Janssen, de Jong, & Bharosa, 2015). Further, an innovation in electronic-government has been introduced, in recent decade, called open government data (OGD). OGD is referred to as any kind of government-related data made available online in machine-readable formats on web portals by governments, public administrations, subsidiaries or agencies, and is freely accessible to the public for use, reuse and distribute without any restrictions of copyrights, patents, or any other legal obligations (Yang & Wu, 2016; Zuiderwijk, Janssen, & Dwivedi, 2015).

The motivations behind this study have been based on the reasoning that, although the availability of open data offers many opportunities to users, not many studies have questioned the usability of open government data from an academicians’ perspective. To the best of the authors’ knowledge, no study has been conducted so far regarding open government data adoption within the Pakistani cultural context. Moreover, open government data is at an infancy stage in Pakistan, and accordingly the concept is so far immature and undeveloped in the national context. Another reason for conducting the study, is that behavioral intention is the best predictor of human behavior, and thus the best predictor of the actual use of open government data. These reasons have bounded the authors, at the present time, to investigate factors that only affect intention to use, instead of actual use of open government data (Weerakkody, Irani, Kapoor, Sivarajah, & Dwivedi, 2016; Weerakkody, Kapoor, Balta, Irani, & Dwivedi, 2017). Through this connection, this study’s main objective is to empirically examine factors that influence the academicians’ behavioral intentions in using open government data in Pakistan.

This paper follows a structure in which an overview of open government data has been presented in the next section, the research method is explained in methodology section, a research model has been developed in research model section, hypotheses are developed in hypotheses development section and this study’s findings are presented in findings section. This is followed by a discussion section, and followed by conclusions, study limitations, and future directions for research in the last section.

**LITERATURE CONTEXT: AN OVERVIEW OF OPEN GOVERNMENT DATA**

The main goal of open government data has been to release non-person specific data, especially data that is collected and processed by public sector agencies or government organizations. These institutions have started making government-related data available and accessible through online platforms. These platforms are web services that allow the public to access datasets in one place.
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