

# Citizens' Intentions to Adopt Innovative E-Government Services: A Technology-Adoption Perspective

Ahmad Adeel, The University of Chenab, Pakistan\*

Sajid Mohy Ul din, The University of Chenab, Pakistan

Kaleem Ahmed, The University of Chenab, Pakistan

Shakeel Ahmad Khan, National College of Business Administration and Economics, Pakistan

Hafiz Muhammad Hanif, University Malaysia Sarawak, Malaysia

Yahya Qasim Daghriri, Universiti Sains Malaysia, Malaysia

## ABSTRACT

The aim of this research is to understand role of citizens' perception of legitimacy and trust on the government on the relationship between perceived usefulness of innovative e-government services and citizens' intentions to adopt innovative e-government services in Pakistan. The authors used both qualitative and quantitative methods in two studies and collected data with mixed survey technique for the inclusion of the perception of the citizens from both sample groups. Data collected in both of the studies was then analyzed with KH Coder 3 for co-occurrence network and with Mplus 7.0 for random coefficient models. Results shown that trust on the government as affected by perception of legitimacy emerged as moderators of the relationship between perceived usefulness of innovative e-government services and intentions to adopt innovative e-government services in addition to simple moderation and mediated moderation, joint effect of perceived usefulness of innovative e-government services, trust on the government, and perception of legitimacy, found for intentions to adopt innovative e-government services. This research will help policy makers and government officials to understand, what might be hindering citizens' adoption of innovative e-government services and what they need to focus on in addition to useful features of the digitalized government services.

## KEYWORDS

Intentions to Adopt Innovative E-Government Services, Legitimacy Perception, Perceived Usefulness, Social Information Processing Theory, Technology Adoption Model (TAM), Trust on the Government

## INTRODUCTION

As a response to the COVID-19 pandemic, a burning question for the countries is whether and how COVID-19 will change what and how we do as a country? Therefore, most of the countries in the world have to radically digitalize their operations (Parker & Grote, 2022; Singh, Rawat, & Singhla, 2021). The development and introduction of Innovative e-government reforms has been

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\*Corresponding Author

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a creative tool for bringing creativeness, competency, strength and transparency in the country (Carter, Yoon, & Liu, 2022; Hochstetter, Vásquez, Diéguez, Bustamante, & Arango-López, 2023; Singh et al., 2021; Snead & Wright, 2014; Zhang, Jiang, Adeel, & Yaseen, 2018). Scholars and practitioners have been sharing a strong interest in understating factors that contribute to adoption of innovative e-government services - intentions to use digitalized government services (Aggelidis & Chatzoglou, 2009; Maatuk, Elberkawi, Aljawarneh, Rashaideh, & Alharbi, 2022). Based on technology acceptance model (TAM), for several decades, researchers have believed that perceived usefulness explain a large portion of the variance in adoption of innovative e-government services (Carter et al., 2022; Horst, Kuttschreuter, & Gutteling, 2007; Sang, Lee, & Lee, 2009; Warkentin, Gefen, Pavlou, & Rose, 2002). When citizens perceive usefulness, they are motivated to use innovative e-government services (Rehman, Kamal, & Esichaikul, 2016). Thus, perceived usefulness is thought to affect intentions to adopt innovative e-government services by affecting citizens' attitude, convenience, and cost perception of the government services (Rana, Dwivedi, Williams, & Weerakkody, 2015).

However, the empirical evidence linking perceived usefulness to intentions to adopt innovative e-government services is equivocal (Abu-Shanab, 2017; Agarwal & Prasad, 1998; Davis, 1989; Maatuk et al., 2022). Some studies have identified that perceived usefulness is positively related to innovative e-government adoption (Abu-Shanab, 2017; MacLean & Titah, 2022; Rana et al., 2015), whereas others have shown a weak or even non-significant relationship (Agarwal & Prasad, 1998; Davis, 1989; Gilbert, Balestrini, & Littleboy, 2004). Additionally, yet, after all of these years, innovative e-government outcomes are being questioned by researchers, despite having all useful technical features, most innovative e-government projects fail (Anthopoulos, Reddick, Giannakidou, & Mavridis, 2015) due to citizens' lack of interest to adopt (Carter et al., 2022; Janssen, van Veenstra, & Van Der Voort, 2013). In light of low success rate and conflicting findings (Anthopoulos et al., 2015), scholars need to explore the new theoretical perspectives and empirical investigations to deepen knowledge of the effects of innovative e-government service features on citizens' adoption of innovative e-government services (Rana et al., 2015; Sá, Rocha, & Cota, 2015).

Our objective in this research is to explain and resolve the conflicting relationship between perceived usefulness and citizens' intentions to adopt innovative e-government services and to explain how innovative e-government adoption can be enhanced in post pandemic covid-19. Technology Adoption Model (Davis, 1989; Davis, Bagozzi, & Warshaw, 1989) is a powerful model to predict acceptance and usage of information technology (Gefen & Straub, 2000). Fundamental to TAM, Individuals' adoption to IT is volunteer and based on the believes of the individuals that use of particular system would enhance performance. Thus, perceived usefulness would precede citizens' intentions to adopt innovative e-government services. Additionally, integrating with TAM, we take social information processing theory (Salancik & Pfeffer, 1978) from social psychology as an explaining mechanism that how citizens' adoption of innovative e-government services is affected by perceptions of individuals.

The main tenant of this theory is that individuals use information in their immediate environment for development of perceptions that regulate their behavior. Thus, in addition to usefulness of services, perceptions developed by citizens due to their external environment would affect their behavior to use innovative e-government services. Therefore, taking perceptual lens (Adeel, Batool, Daisy, & Khan, 2022; Khuwaja, Ahmed, Abid, & Adeel, 2020; Maatuk et al., 2022) for innovative e-government, we propose here that intentions to adopt innovative e-government services are contingent upon the perceptions of the citizens about legitimacy of the government (MacLean & Titah, 2022; Tolbert & Mossberger, 2006) and also citizens' trust on the government (MacLean & Titah, 2022; Rehman et al., 2016). This research will provide in-depth understanding on what is required for the success of innovative e-government projects from citizen's view while using mixed-method and multi-survey data analysis techniques.

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