# Exploring the Moderating Effect of Perceived Usefulness on the Adoption of E-Government Services

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#### **ABSTRACT**

This study explored the moderating effect of perceived usefulness on the impact of trust in the internet and trust in government on the intention to adopt e-government services. The Technology Acceptance Model (TAM) was used as the theoretical foundation for this study. The results indicated that trust in the internet and trust in government were both significant predictors of the intention to use e-government services. It was also discovered that trust in the internet was a positive determinant of trust in government. Furthermore, the study revealed that while perceived usefulness had a significant moderating effect on the impact of trust in the intention to use e-government services, it was however not significant in moderating the impact of trust in government on the intention to use. The significant and non-significant moderating effect of perceived usefulness on both the relationship between trust in the internet and trust in government on the intention to use is the unique contribution of this study. The implications of these findings are discussed.

#### **KEYWORDS**

E-Government, E-Government Services, Moderating Effect, Perceived Usefulness, Technology Acceptance Model (TAM)

#### INTRODUCTION

The demand by citizens, businesses and the general public to enjoy quality service delivery from government and its affiliated agencies have prompted governments around the world to adopt and implement e-government as a tool to provide the higher demand for higher standards of government public services. Government is, therefore, leveraging the advancement and development in the information and communication technologies such as the internet to provide quality online services to citizens (Verkijika & De Wet, 2018). The use of these information and communication technologies to provide quality public services and information to citizens and businesses and other stakeholders in society is known as e-government (Dwivedi et al., 2017; Padmapriya, 2013). The ultimate driver of the implementation of e-government by the government is to provide efficient and effective government services to key actors in society. The implementation of e-government has numerous

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benefits to citizens and government (Ali, Mazen, & Hassanein, 2018). It can allow citizens to manage data, enjoy better service delivery and have access to multiple communication channels and for the government, it increases productivity, impacts positively on the economic development, shared global knowledge and automated business processes and communications (Ali et al., 2018).

In order to understand the factors influencing citizens to adopt and use e-government services, many recent studies have attempted to explore what drives citizens towards the adoption of e-government service (Verkijika & De Wet, 2018). Some of these major factors which have been explored to influence the intention to use e-government services are trust in the internet and trust in government (Abu-Shanab, 2017; Lallmahomed, Lallmahomed, & Lallmahomed, 2017; Zhao & Khan, 2013). Trust in the internet is considered as citizens perception that the use of e-government services through the internet medium is highly secure and does not affect their personal safety and privacy (Abu-Shanab, 2017; Rehman, Kamal, & Esichaikul, 2012). Trust in government is the extent to which citizens have confidence about the potential of government and its agencies to provide public services through e-government (Bélanger & Carter, 2008; Lallmahomed et al., 2017). Another major factor which has been explored in the context of citizens' adoption of e-government services is perceived usefulness which is one of the major determinants of the behavioral intention to use in the Technology Acceptance Model (TAM) (Davis, 1989; Davis, Bagozzi, & Warshaw, 1989). Studies have shown that trust in the internet has a positive effect on the behavioral intention to use (Aloud & Ibrahim, 2018; Bélanger & Carter, 2008; Kurfalı, et al.,; Verkijika & De Wet, 2018). Also, it has been established that trust in government is positively related to the behavioral intention to use (Aloud & Ibrahim, 2018; Lallmahomed et al., 2017; Ma, 2018; Verkijika & De Wet, 2018). Again, perceived usefulness has been shown to have a direct effect on the intention to use (Aloud & Ibrahim, 2018; Ismailova, Muhametjanova, & Kurambayev, 2018).

While the direct impact of trust in the internet, trust in government and perceived usefulness have all been established to predict the intention to use e-government services as indicated above, no study has so far investigated the moderating effect of perceived usefulness on both the significant impact of trust in the internet and trust in government on the intention to use e-government services. This is, therefore, the identified research gaps which this study seeks to fill. Filing these research gaps will bring clarity and empirical understanding of the moderating potency of perceived usefulness on the impact of both trusts in the internet and government towards the behavioral adoption intentions of e-government services. It will further elucidate if the relationship between both trust in the government and in the internet and the intention to use e-government services is dependent on a third construct which is in this case perceived usefulness. The investigation of third variables as moderators is crucial in informing both theory and evidenced-based practice implications (Fairchild & McQuillin, 2010). A moderator changes or modifies the nature of the relation between a predictor and an outcome and thus can influence or affect the strength or direction of the relationship between the two variables (Fairchild & McQuillin, 2010; MacKinnon, 2011).

Consequently, the objective of this study is to investigate the moderating effect of perceived usefulness on the relationship between trust in the internet and trust in government on the behavioral intention to use. The investigation of this moderation effect will be an important contribution to the existing e-government adoption literature. To achieve the objective of this study these research questions will be explored:

- Does trust in the internet influence the intention to use e-government services?
- Does trust in government influence the intention to use e-government services?
- To what extent does perceived usefulness moderates the impact of trust in the internet on the intention to use e-government services?
- To what extent does perceived usefulness moderates the impact of trust in government on the intention to use e-government services?

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