Trust In E-Government Services in Pakistan: A Conceptual Study

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Abstract: Adoption of digital system becomes an innovative revolution to replace the tradition work into scientific means. Electronic government is the use of technology in which particular wireless based application sustains the provision of online interconnectivity in the way to convey a speedy service delivery and materialize an easy accessibility of users via government portal. Moreover, the vitality of e-government has been recognized in the contemporary era of science and technology across the world. The chief aim of this study to represent a literature of an electronic government use in a conceptual means in which proposed determinants as PEOU, PU, TIEG, SI, and ITU envisage the intention of the users' online services of government in a Pakistan perspective. In the existing literature all constructs of the proposed model possess an effect on the intention to use e-government and the theoretical approach encompasses the TAM and UTAUT model to assist the technological adoption of the employee's use of the innovative system in an organization. However, Pakistan has been ranked low in the e-government development index that seems the backwardness of the e-government adaptation in the country that is recognized as the dire need to be adjusted with public sectors to sustain an effective and efficient service delivery. It seems the poor literacy rate and financial constraints are serious obstacles for adopting e-government technology in the working atmosphere of the diverse public sector organizations.

Keywords: Electronic government, Perceived usefulness, Obstacles, Recommendations, Intention to use

Introduction

Adoption of an innovative technology to substitute the traditional work mechanism is perceived a hard task in which an investigation of behavioral attitude concerning the e-government acceptance or information technology is the dire need to mobilize the research to meet the intentional assessment of users. Information technology has brought a tremendous change and provided a unique mode of interconnectivity via online in the various sectors of life such as e-learning, e-voting, e-procurement, e-commerce, e-Fiqh, and e-government (Haider, et al., 2019; Chandio, et al., 2018). E-government is an online government used by the public and private services which are recognized under the jurisdiction of the government's legalized documentation based on the law of the land (Chandio, 2020). The existing literature highlights the digital era of online system in which governments utilizes the internet in order to deliver services and to interconnect with organizations and citizens. The degree of reliability of e-government services in Pakistan is based on the use of technology and meets the users' satisfaction on online government applications (Chandio, et al., 2019; Haider, et al., 2019). Thus according to researchers Governments should construct trustworthy relationships with citizens earlier than go to disclose e-channel that can succeed e-government projects (Chandio, et al., 2019; Warkentin et al., 2002). E-government has been recognized as an instrument to provide electronic information and electronic services to citizens, online banking and public sectors as a substitute of the traditional channels (Haider, et al., 2019).

Electronic services (E-service) acceptance brings an organizational change and its development depends on the reliability users and their expertise to apply the innovative system. The wireless technology as the online service provides a digital facilities to organization, citizens, multinational corporations and government related different sectors (Chandio, et al., 2018). Hence, scholars support the use of e-government an unproblematic to public institutions and make certain the service delivery via adoption internet (Chandio, 2020; Haider, 2019; Abu-Shanab, 2013). The present literature relates to use of electronic government and its acceptance in the public sectors to provide an effective governance and administration. The public workers trust regarding the use of technology is a significant to introduce the innovative system in the public sector which highlights the expertise of the users of the information technology (IT). The gap between public trust and technology use remains the gulf in the modern governance that require serious attention to campaign a research and theory (Asgarkhani , 2009; Levi and Stoker, 2000).

Adoption of electronic government trend ensures the provision of a self-sustaining change via interconnectivity by means of technological use in the culture of organization (Chandio, et al., 2018; Dunleavy et al., 2006). The proposed construct represent the users decision and their trust building on the innovative technology to mobilize an online services (Chandio, et al., 2019; Haider, 2019). In the early research number of antecedents were used to discover the intention and trust building of the electronic government users in which adoption of the innovative technology was assessed by the user (Haider, 2019; Beldad et al., 2012). The proposed the constructs as perceived usefulness (PU), social influence (SI), and perceived ease of use (PEOU) were extensively were used to interpret the users' perception towards the acceptance of technology in which the use of website to be

perceived (Haider, 2019; Abu Shanab, 2014; Alsaghier et al., 2009). There are number of theories regarding the technological adaptation exposed the various factors that have considerable influence on trust and intention od employees to use the electronic services such as technology acceptance model (TAM) and theory of reasoned action (TRA) (Fishbein and Ajzen 1975; Davis, 1989).

Literature review

The existing study provides a wide literature on the employees' perception to use the innovative technological system like use of electronic government in Pakistan, and pursues the proposed constructs perceived ease of use, perceived usefulness, social influence constructs, trust in e-government and intention to use (Chandio, 2020; Haider, 2019; Abu Shanab, 2014). E-government occupies a significant position in the dissemination the wireless based services to sustain an emergence to proximity of relationships of citizen with government and government to employees. Research strived to explore the constructs to assess the intention of innovative technology use in an organization that would influence the verdict to adopt this technology (Chandio, 2020; Haider, 2019). It highlights the earlier scholarly services regarding the relationship between proposed constructs in this study like perceived ease of use, perceived usefulness, social influence, trust in e-government and intention to use (Chandio, 2020; Haider, 2019; Abu Shanab, 2014; Lean, et al., 2009). These extant studies help to manage the conceptual framework of present research to produce a literature on the accumulating the researches opinion towards the intention to use e-government whereas early studies supported the concerned notion of research.

Perceived ease of use has been defined as an effortless consciousness of users to conceive the innovative technology as an easy to be used. Moreover, it has been defined as the degree of users perception to consider the use of technology as an effortless and free from any troublesome (Davis, 1989). In the research within developed countries adopted the factors like PEOU, PU, and ITU to interpret the intention of users to use the electronic government services in the public sectors across the world governments (Haider, 2019; Abu Shanab, 2014; Phang et al., 2005). The developed model like technology acceptance model (TAM) uses the constructs PU and PEOU in the in forecasting intention to use e-government (ITU) (Davis, 1989). In this perspective technology acceptance model (TAM) encompasses the both constructs (PEOU and PU) to influence the users' attitudes to adopt innovative system (Haider, 2019; Abu Shanab, 2014; Davis, 1989). According to the TAM model the determinants as PEOU, and PU impact the perception of an individual users towards the assessment of the innovative system and investigate the the influence of the users behavior to adopt the new introduced system in an organization.

Number of research sustained their arguments to connect the variables a PEOU and PU to measure the intention of employees to use the newly adopted technology in an organization (Chandio, 2020; Haider, 2019; Abu Shanab, 2014; Warkentin et al 2002). In the research concerned with the adoption of e-government use materialized the challenges in the third world nations and the research relating to e-government development and progress in the societies of developing communities remained a trial to accomplish the appropriate the use of technology in the work environment (Chandio, et al., 2018). There are various studies to encourage the use of the variables as PEOU, PU, and TIEG to measure the intention of electronic government technology users and the, majority of the research support the relationship of the constructs (Haider, 2019; Chang, et al., 2005; Warkentin, et al., 2002). The users' intention is to be motivated and enhanced when the perceived usefulness (PU) and perceived ease of use (PEOU) rose at a higher degree (Chandio, 2020; Haider, 2019; Davis, 1989).

The majority of the earlier research gave hypothesis concerning the perceived usefulness (PU) as to be a reviewer to intention to use (ITU) also second-hand perceived ease of use (PEOU) as another predictor. The citizens' intention to use electronic government has been affected by trust in government's e-services, perceived usefulness (PU) and perceived ease of use (PEOU). The research argues that perceived usefulness has been influenced by the intention of user to use electronic government (Warkentin et al., 2002). Few researcher claims that relative benefit of the technological acceptance is pertaining to perceived usefulness. Likely, research argues that relative advantage of technological acceptance is related to perceived usefulness (PU) from (TAM) technological acceptance model (Venkatesh and colleagues, 2003). Moreover, TAM model also concerns to website use where perceived usefulness and perceived ease of use manipulate the adoption of the Internet (Gefen, and Straub 2000). However, these numerous studies cleared to reveal the backgrounds of perceived usefulness which are precious to practitioners in providing guidance them to devise a system that gives warranty of the high adoption (Venkatesh, et al., 2003; Gefen, and Straub 2000).

Social influence means a compact society in which social perceptions is being influenced. Social influence highlights the social perceptions or social intensity. It is serious situation for governments, as it gives emphasis to the social waves of perceptions concerning to services of government (Haider, 2019; Abu-Shanab 2014). Social perception occupies deep influence in the society in order to highlight the degree of assessment of a government. Social influence in e-government adoption stands for that it highlights the degree to which important people in users life believe that he should use e-government services. On the basis

of the results (Malhotra, and Galletta 1999) it reveals that Kelman's three processes of social influence have direct effects on the attitude of users and indirect belongings with the behavioral intention via attitude. Social influence is the influencers pertaining social perception of people related to e-government. Social influence reveals a close society that is to be influenced by means of social perceptions (Abu Shanab 2014).

Social influence plays an influential role in the adaptation of the information technology and handling a significant area for a better comprehending 'the world of the real nature' application of technology acceptance model (TAM). Social influence attracts the interest in comprehending the changes, which come out concerning in the attitude of individuals inputs externally, such as communicated to them via information technology (Kelman, 1958). Social influence relates to individual social perceptions to adopt and implement the information technology that would assist to investigate the trust in e-government services. Social influence ensures a psychological relation of user to adopt the information technology. Social influence implies the degree of perception of the perceiving of an individual regarding one's trust to use new system (Venkatesh et al., 2003). Social influence is a very significant and influential construct that have an effect on numerous aspects of the decisions of citizens (Al-Shafi and Weerakkody, 2010; Venkatesh et al., 2003). Thus Social influence argues that use of e-government services emphasizes the social waves of perceptions relating to trusts in e- government.

Intention to use e-government (ITU) has been defined as a designation of mind to anticipation and social perception to use electronic services by a user. Trust the degree of the reliability of the users regarding the adoption of the innovative technology whereas the trust in e-government is concerned with the trustworthiness of the electronic government users to be perceived by the user (Chandio, 2020; Haider, et al., 2019; Abu- Shanab 2014). The proposed construct trust in e-government influence the intention of users to sue e-government services in the organizational operations and it assists the measure the degree of the reliability of the users to adopt the innovative technological use. Trust in e-government has been carried out in the studies of many scholars. In this perspective, the research conducted by majority scholars in the developing countries to investigate the significant of technological modernism with its relationship between perceived usefulness , perceived ease of use and intention to use relating to trust in e-government (Phang, et al., 2005; Chang, et al., 2006).

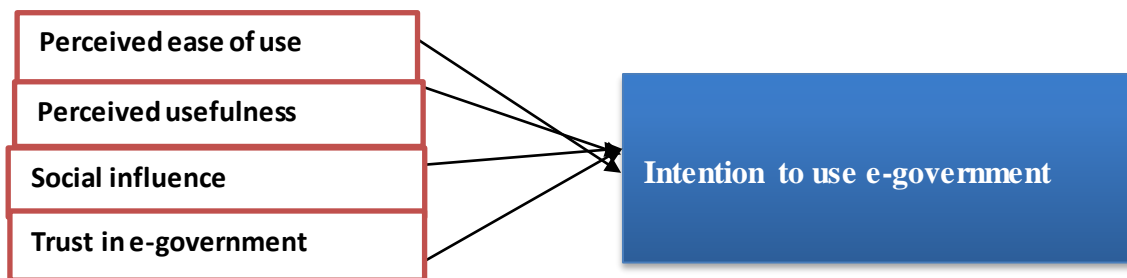**Proposed conceptual framework model**

Figure 1. Proposed conceptual model

The proposed model is based on the factors to assist the electronic government users perception in Pakistan perspective. In Pakistan e-government faces the numerous difficulties and require effective initiative to make innovative technology adoptable that relies on the Culturalization of information technology (IT) in society and deep attention of government to ensure the provision of the IT based infrastructure and literacy (Chandio, et al., 2018). Pakistan ranks low in e-government perception index that is because of financial and political constraints and crisis in the way to boost up technological adoption in the country (Chandio, et al., 2019). It ranks Pakistan in poor position in the e-Government context among other Asian countries as united nation survey reports Pakistan to be in the category of Middle level of the Electronic government development index (EGDI).

Very High EGDI 2018 (Greater than 0.75)	High EGDI 2018 (Between 0.50 and 0.75)	Middle EGDI 2018 (Between 0.25 to 0.50)	Low EGDI 2018 (Less than 0.25)
Australia	Albania	Afghanistan	Central African Republic
Italy	Costa Rica	Democratic Republic of the Congo (+)	Central African Republic
Japan	Panama (+)	Pakistan	

Table .2018 (EGDI) Electronic government development index1 1

In the majority of the developing countries, such as Pakistan's government also encourages getting initiatives and launching projects of e-Government in a whole country to give the appropriate e-services in a more cost-effective and suitable way to the Pakistani citizens (Asgarkhani, 2009). Additionally, the development of information technology can play an effective role to decrease the social issues of Pakistan. Enabling Information Communication Technology (ICT) infrastructure will make possible to lessen the dilemmas of the poverty in Pakistan and governments' ineffective strategies of which produce an atmosphere for the government stay away from depression that will make capable to create the jobs' new and fresh market. However, the majority of the developing countries like Pakistan meet the number of obstacles to accomplish and get better the system of electronic government in more specialized and reliable way (Chandio, et al., 2018; Haider, et al., 2016). Henceforth, the position of Pakistan in e-Government context ranks her behind the other developed and developing nations.

Aim and objectives of the study

The key aim of this study is to investigate the relationship between behavioral and technological factors with trust in e-government. For achieving this aim following objectives have been proposed.

- To highlight the relationship between PEOU, PU, SI, TIEG and ITU.
- The key objective of this research is to find out the degree of trust in e- government that gives its coordination with the constructs of social influence, perceived usefulness and perceived ease of use.
- Review the literature concerning the employees' intention to use e-Government regarding the assessing their degree of reliability in e-services.
- It charts out the trustworthiness of public employees concerning the e-services of government.
- Long-range theoretical models have been Investigated that can be applied to examine the intention of employees to use electronic government services.
- An appropriate conceptual model is to be proposed to investigate the employees' role relating their intention in the way to use the technology and adoption of e-services and proposed hypotheses.
- It highlights the contributions which can assist the governments to practice government in an effective way to promote technological measures to adopt e-services and assure the provision of the better e-Government services through comprehending the dimensional impacts of trust in e-Government.

Conclusion

Information Technology also played influential role in the way of development and progress. This article aimed to proposes to improve the understanding of the constructs which influence the (TIEG) trust in e-government services. E-government gives a significant e-service that meets the lives citizens and manipulates their future interactions with their governments. The chief purpose of the existing article is to improve the understanding of the constructs which influence the (TIEG) trust in e-government services. The proposed model contained five major constructs such as PU, PEOU, SI, ITU and TIEG that are commonly concerned with the technology acceptance domain. Trust in e-government was envisaged by four major factors in the earlier study with a positive significance. E-government gives a significant e-service that meets the lives of citizens and manipulates their future interactions with their governments. Moreover, the prevailing study pertains to conceptual study but in future this model can be tested as in empirical data as well. The existing paper analyzes the e-government prevailing situation in Pakistan perspective. The current condition of e-government of Pakistan lags behind the other developing and developed countries of the world.

Reference

[1] Abu-Shanab, Emad. "Antecedents of trust in e-government services: an empirical test in Jordan." *Transforming Government: People, Process and Policy* (2014).

[2] Al-Shafi, Shafi, and Vishanth Weerakkody. "Factors affecting e-government adoption in the state of Qatar." (2010).

[3] Asgarkhani, Mehdi. "The effectiveness of e-service in local government: A case." *Asymptotic and Computational Methods in Spatial Statistics* 22 (2009).

[4] Chandio, Abdul Rahim, Zulfiqar Haider, Suhail Ahmed, Manzoor Ali, and Iqbal Ameen. "E GOVERNMENT IN PAKISTAN: FRAMEWORK OF OPPORTUNITIES AND CHALLENGES." *GSJ* 6, no. 12 (2018).

[5] Chandio, Abdul Rahim. "Factors Influencing Intentions to use Digital Learning during COVID-19 Outbreak in Sindh: An Empirical Study." *International Journal of Distance Education and E-Learning* 6, no. 1 (2020): 83-95. https://doi.org/10.36261/ijdeel.v6i1.1423.

[6] Chang, I-Chiu, Yi-Chang Li, Won-Fu Hung, and Hisn-Ginn Hwang. "An empirical study on the impact of quality antecedents on tax payers' acceptance of Internet tax-filing systems." *Government Information Quarterly* 22, no. 3 (2005): 389-410.

[7] Davis, Fred D. "Perceived usefulness, perceived ease of use, and user acceptance of information technology." *MIS quarterly* (1989): 319-340.

[8] Gefen, David. "Reflections on the dimensions of trust and trustworthiness among online consumers." *ACM SIGMIS Database: the DATABASE for Advances in Information Systems* 33, no. 3 (2002): 38-53.

[9] Haider, Zulfiqar, Abdul Rahim, and Fahmida Aslam. "Antecedents of Online Banking Adoption in Pakistan: an Empirical Study." *International Research Journal of Arts & Humanities (IRJAH)* 47, no. 47 (2019).

[10] Haider, Zulfiqar, Chen Shuwen, and Muhammad Bux Burdey. "e-government project obstacles in Pakistan." *International Journal of Computer Theory and Engineering* 8, no. 5 (2016): 362.

[11] Hung, Shin-Yuan, Chia-Ming Chang, and Ting-Jing Yu. "Determinants of user acceptance of the e Government services: The case of online tax filing and payment system." *Government information quarterly* 23, no. 1 (2006): 97-122.

[12] Lean, Ooh Kim, Suhaiza Zailani, T. Ramayah, and Yudi Fernando. "Factors influencing intention to use e government services among citizens in Malaysia." *International journal of information management* 29, no. 6 (2009): 458-475.

[13] Malhotra, Yogesh, and Dennis F. Galletta. "Extending the technology acceptance model to account for social influence: Theoretical bases and empirical validation." In *Proceedings of the 32nd Annual Hawaii International Conference on Systems Sciences. 1999. HICSS-32. Abstracts and CD-ROM of Full Papers*, pp. 14-pp. IEEE, 1999.

[14] Phang, Chee Wei, Yan Li, Juliana Sutanto, and Atreyi Kankanhalli. "Senior citizens' adoption of e government: In quest of the antecedents of perceived usefulness." In *Proceedings of the 38th annual Hawaii international conference on system sciences*, pp. 130a-130a. IEEE, 2005.

[15] Phang, Chee Wei, Yan Li, Juliana Sutanto, and Atreyi Kankanhalli. "Senior citizens' adoption of e government: In quest of the antecedents of perceived usefulness." In *Proceedings of the 38th annual Hawaii international conference on system sciences*, pp. 130a-130a. IEEE, 2005.

[16] Venkatesh, Viswanath, Michael G. Morris, Gordon B. Davis, and Fred D. Davis. "User acceptance of information technology: Toward a unified view." *MIS quarterly* (2003): 425-478.

[17] Warkentin, Merrill, David Gefen, Paul A. Pavlou, and Gregory M. Rose. "Encouraging citizen adoption of e government by building trust." *Electronic markets* 12, no. 3 (2002): 157-162.