Trust in E-Government in Pakistan: Analyzing the Influencing Factors of Accessibility, Security, and Usefulness

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Abstract
Citizen's satisfaction is a vital factor for consistent use of e-Government administrations and the achievement or disappointment of e-Government ventures. The fundamental test for research is what the critical determinants of their satisfaction are? This paper plans to distinguish the key factors that decide e-Satisfaction with e-Government administrations entryway. In light of a broad audit of critical writing, five theories are detailed what's more, three elements are recognized (i.e security, accessibility and usefulness) with respect to the availability, consciousness of open administrations, what's more, nature of public administrations that may influence the level of satisfaction towards utilizing the e-Government gateway. Review information from 385 representatives was gathered and used to test the proposed speculations. Given different direct relapse and factor investigations, our experimental examination exhibits a few key discoveries.
Keywords: Perceived accessibility, perceived security, perceived usefulness, citizen's satisfaction, trust in e-government.

Introduction
E-government is the need of the modern world. It is quite understandable that how the developed countries are doing and what developing countries can learn from them and could adopt this thing which can help them to ease their functions more liquidity and operationalization of their works and easier to access to the public and the government departments. Either, like them or Hate them, computers are becoming a common feature of the internal and external essential component of contemporary society, and governments gradually realize that ICT, the Internet may have the potential for the running of government, departments and the other industry sectors. E-government' is a term that has recently been circulating in Information Technology (IT) and government circles for some time. The key to E-Government is the establishment of the long-term, organization-wide strategy to constantly improve functions with a view to fulfilling citizen needs by transforming internal functions such as staffing, technology, operations and workflow management. The establishment of E-Government requires certain state famous actors to work collectively and accept change in current infrastructure. Where E-Government benefits the citizens effortlessly, and without difficulty in their daily life matters, it also creates troubles & sometimes rattles turn to the Government system. In this modern world where developed countries are still facing challenges in implementing E-govt, Pakistan is a growing child, and hence Pakistan has an overabundance tendency to failure for the new system. The successful execution, setup, and rendering of E-Government will be a major challenge for the new Government to deal with the technical issues, to Control, Deal with and Take care of Change in the existing system and co-operate with the public expectations. According to Stephen Barr, the use of Internet technology and protocols to transform organization effectiveness, efficiency, and service quality. According to Gartner Group The continuous marketing of service delivery, constituency participation and governance for changing, modifying and altering external and internal human relationships through technology the world wide web and new media. E-Government is the public sector's use of the most ground-breaking information and communication solutions, like the web to deliver to all citizens improved upon services, reliable information, and greater knowledge to facilitate access to the governing process and encourage deeper citizen involvement. (UNPA &ASPA)E-Government is the use of ICT to promote more effective and cost-effective government, assist in far more convenient federal government services, allow greater general public access to information and make government more responsible to its citizens. Eventually, e-government aims to improve usage of and delivery of government services to advantage citizens. Essential it is designed to help strengthen government's drive toward effective governance and increased transparency to manage a country's social and economic helpful development better.

E-Government is recognized internationally as an enabler toward obtaining good governance while increasing the capability of citizens and businesses to gain access to public services in a powerful and an efficient and cost-efficient manner. Maturity and the cut down at the expense of Government systems have made E-Government an enabler of choice for developing countries to leapfrog across multiple generations of technology. The Federal Ministry of IT has been severely aware of this growing reality and has included E-Government as an important area in its first Countrywide IT Policy and Program of action, approved by the Federal Cabinet in 2000.Empowered by the IT Policy, the Ministry of IT set itself the task of this regarding the inertia in the E-Government area by applying into action and sponsoring projects in those organizations whose will, commitment and ownership towards E-government systems could be won over successfully. At the same

time, the Ministry of this strengthened the capacity not only of its own IT Wing by employing technical experts as Task Managers, but also by establishing the E-Government Directorate, in October 2002, for creating greater impact and give attention to E-Government. The E-Government Directorate presently stands at the professional durability of 19 persons. Seeing that the year 2000, the Ministry has utilized PSDP funds of Rs. 3. 68 billion in the IT sector, of which Rs. 281 million has been specifically useful for e-government projects. E-Government projects already in the implementation of the System Line worth about Rs. 1. 5 billion.

E-Government
E-government Conference held in Lisbon during May 2002, the term "e-government" was used in the following way: "E-government is the application of Information and Conversation Technology by the government and public sector agencies, and it is transforming the way government authorities connect to their individuals. Its use promises to enhance the effectiveness and efficiency of government and radically alter its relationship with the public. Advancements in communication and technology are playing an essential role in raising the living standards and strengthening individuals to understand and gain access to all the initiatives and support systems that are available to them." How the basic factors (i.e., accessibility, security and perceived usefulness) lead to develop or breach the trust in e-government? Can it fix the challenge of declining general public interest and trust in government that apparently more than three years? There are certain definitions that "there is a widespread matter that the public has lost faith in the performance of the main institutions of representative federal government, in fact, it is hoped that more available and transparent government and more efficient service delivery could help restore that trust"(2001, 113). E-government contains promise for improved delivery of many types of public services, including online transactions, and for comprehending information about the procedure of government. It can improve communication between individuals and government through email, enabling more direct contribution in government decision making (Thomas & Streib, 2003). The purpose of this study is to provide an empirical analysis of the impact of e-government on citizen attitudes about authorities of the present system and governing body.

As the Internet became popular in popularity, and more everyone was able to access it, governments significantly looked to it just as one way of reducing costs, increasing marketing communications between government departments and the public, increasing efficiency within the bureaucratic systems of presidency and stimulating greater citizen participation in government processes (Coleman & Perl, 1999; Fountain, 2001; Grönlund & Horan, 2005; Scott & Vessey, 2000). E-government was first formally described in the United States, during the Clinton government (1993- 2000) and we will go back to these origins shortly. Nevertheless, the origins of e-government stem at the beginning of the many citizen portal websites that were create proceeding to this. From the mid-1980s to the later 1990s, there have recently been a variety of local communities around the world which may have to create citizen networks online, and these were often used as experiments for e-government initiatives. E-governance should go beyond simple service accessibility to build external relationships (Heeks, 2001), enhance democracy by increasing representative involvement in political decision making (Lenihan, 2002), strengthen democratic institutions and processes, and involve the general public in politics choices so that their needs and priorities are respected (Council of The European countries 2007). While a good idea, in theory, these goals may be difficult to achieve; in reality for much of the public sector e-governance presents unprecedented problems. Also, the development of an online general public sphere may require a reassessment of traditional concepts of the role of the citizen and the size of government-citizen relationships (Taylor, Lips, & Organ, 2006). For e-government services to be well-off, they intend to be accessible and decidedly accessible to consumers. Government sites, in common mutually the exuberance of the Web have become preferably usable around time by bodily of the better handle of features by designer's better addict fantasy of conventions and changes in technology. This trend is for help by the brought pressure to bear up on to standards-based websites, considering the standards incorporate profuse features that threw in one lot with usability.

There is a relation between accessibility, Usefulness of e-government services, Security, trust in E-Government and the satisfaction of the people on E-Government. Satisfaction is associated with accessibility because it affects the evaluation of whether or not political authorities and institutions are performing by normative expectations held by the public. The more Accessibility to government institutions have a high level of satisfaction while low accessible institutions have a low satisfactory position. Institutions with more accessibility tend to hold more trust in Government and use long-term sources of relations and trust to nurture their current position and to be helpful in performing their current operations. The main issue is that security decisions are to be adjusted over the period for smooth operations. We will see in the research that how Governments that are in functioning are managing these types of issues. And what is the impact of accessibility, Usefulness of e-government services, Security, trust in E-Government on the satisfaction level of the people on E-Government? The main aim behind the study is to provide insights about accessibility, Usefulness of e-government services, Security, trust in E-Government and satisfaction in e-government about the problem

because of the value and contribution of these Variables to the smooth running of the government operations. "How citizen living in state take these variable enlisted as the sign of the prosperity and how happy and satisfy they are with the E-Government and how the Government machinery are managing their day to day operation and what is the impact of accessibility, Usefulness of e-government services, Security, trust in E-Government, on satisfaction of the people in E-Government"

Theory and Hypotheses
The research questioned the meaning of e-government, where some considered it as basic as giving open administration using the Internet (Shanna, Bao, & Qian, 2012) and others implanted other complex capacities under such idea (Abu-Shanab, 2014). E-government is considered by numerous scientists as a device for giving electronic data and administrations to residents rather than the conventional channels (Alshehri, Drew, Alhussain, & Alghamdi, 2012). It is critical when characterizing e-government to ensure that we completely comprehend its partners to see more their needs, desires and better arrangement e-administrations gave to them (Axelsson, Melin, & Lindgren, 2013). E-government can be ordered into two noteworthy headings: the supply side and the request side. The supply side is identified with the moves made by governments, where the request side relates more to subjects' acknowledgment (Lim, Tan, Cyr, Pan, & Xiao, 2012). (Abu-Shanab, 2014) demonstrated in his definition that it incorporates four noteworthy measurements:
(1) Giving e-administration to subjects and organizations;
(2) Enhancing open and government execution;
(3) Encouraging the equitable procedure through e-majority rules system and re-interest;
(4) Supporting the required social improvement and crossing the advanced gap
      There are broad examinations on the reception of data frameworks and the utilization of innovation in various fields, including electronic business and electronic government many hypotheses have been created to clarify conduct and appropriation aims. Among these is the hypothesis of contemplated action (TRA), the hypothesis of arranged conduct (TPB), the advancement dissemination hypothesis (IDT), the innovation acknowledgment demonstrates (TAM), the brought together hypothesis of acknowledgment and utilization of technology (UTAUT). (Ajzen, 1991) Built up the TRA to clarify and foresee human conduct. Two determinants of "expectation mentality towards conduct" and "subjective standards with conduct" were utilized as a part of this hypothesis. (Ajzen, 1991) additionally broadened the hypothesis by including "saw conduct control." This expanded hypothesis is known as the TP Band, for the most part predicts purposeful practices towards data innovation. (Davis, Bagozzi, & Warshaw, 1989) Built up the TAM to distinguish the relationship between saw values and saw convenience; and client's dispositions, goals and real use to disclose the elements adding to the acknowledgment of innovation. This hypothesis researchers an extensive variety of end-client processing advancements and client populaces. The model is effective in anticipating the utilization of data frameworks and keeps on getting wide help for approval, application, and replications in data innovation (IT) appropriation models(Cheng & Firth, 2006). Be that as it may, the TAM has a few impediments. Time and cash limitations are not mulled over, and its builds are excessively broad, so it doesn't give important data about the client acknowledgment of a particular innovation. Research disputed this is the definition of e-government, where some considered it as easy as providing general public service via the web internet (Shanna et al., 2012) and more embedded other complicated functions under such idea (Khasawneh, Rabayah, & Abu-Shanab, 2013). E-government is known as by many research workers as an instrument for providing electronic digital information and services to people rather than the original or ancient programs (Alshehri et al., 2012).

Accessibility and Government
For e-government services to be well-off, they intend to be accessible and decidedly accessible to consumers. Government sites, in common mutually the exuberance of the Web have become preferably usable around time by bodily of the better handle of features by designer's better addict fantasy of conventions and changes in technology. This trend is for help by the brought pressure to bear up on to standards-based websites, considering the standards incorporate profuse features that threw in one lot with usability. Government offices are progressively utilizing web-based social networking to connect with natives, share data and convey benefits more rapidly and viable than any other time in recent memory. Be that as it may, as social substance, information and stages turn out to be more assorted, organizations must guarantee these advanced administrations are available to all natives, incorporating individuals with inabilities. This Toolkit is your manual for Improving the Accessibility of Social Media in Government. Made with the contribution of online networking pioneers and clients crosswise over the government and the private part, this living report contains accommodating tips, genuine illustrations, and best practices to guarantee that your web-based social networking content is usable and open to all natives, incorporating those with incapacities.
      Governments in Different nations need to audit their availability related approaches to quicken the change to open e-Government sites. Additionally, it should take a shot at spreading familiarity with a parallel open door

for all customers, e.g., incapacitated and also non-impaired guests to sites. In light of the work portrayed in this paper, the creators might want to prescribe the accompanying issues as basic introductory advances. Site improvement requires diverse IT ability regarding openness, ease of use, security, UI plan and so forth hence the legislatures need to accelerate the way toward obtaining such aptitudes by concentrating on IT foundations to expand the number of understudies who have enough training on new advancements. Additionally, foundations should instruct up and coming advancements. It is important to understand that all e-Government attempts are subject to the openness of its basic sites. If a site isn't open to the proposed target population, it won't be effective.

Security and E-government

Although state-of-the-art technology eases the development of online 'one-stop government' platforms, it is, at the same time, a major contributor to some of the problems associated with the design and implementation of a secure environment especially when combined with the continuously increasing citizen mobility. By allowing users to access services from virtually anywhere, the universe of ineligible people who may attempt to harm the system is dramatically expanded. Moreover, existing methodologies for determining risk factors and identifying security requirements for the assets (hardware, software, and data) of an information system with well-defined boundaries, are not necessarily applicable or and cost-effective for new architectures like a GRID. GRID security requirements, including authentication, communication protection and authorization, should provide for interoperation among different domains, adoption of different security rules and policies and take into consideration the definition of globally unique identities for each involved entity (user, resource, service), the provision to each entity of a mean to prove that it possesses a specific identity and the adoption of rights delegation mechanisms to other entities. A central focus of e-Government benefit is the means by which the innovation can be utilized to expand effectiveness for the open organization, as well as to fortify trust in security measures by making common straightforwardness between e-government and residents.

The procedure approach for data security administration framework, ISMS, displayed in three stages its clients to underscore the significance of:

1) Understanding an association's data security prerequisites and the need to build up strategy and goals for data security.
2) Actualizing and working controls to deal with an association's data security hazards with regards to the association's general business dangers.
3) Observing and auditing the execution and viability of the ISMS.
4) Nonstop change gave target estimation.

Regardless of trusted security and protection measures constitutes a critical achievement factor for e-Government that has not been yet tended to as UN 2012 Survey demonstrates just 20% of national entries unmistakably show the nearness of security highlights. Europe is driving with 44% nations showing secure connections on their national sites, yet review don't consider local and international sites and neither the many decentralized, open association web-based interfaces. E-Government is the electronic adaptation of the legislature went for enhancing open administrations by the legislature with some extra ideas, for example, straightforwardness, responsibility, and interest (Sabharwal & Berman, 2013). E-government can be assembled into four sorts, in particular: G2C (Government to Citizen) for connection between the administration and the general public, G2B (Government to Business) for association between the legislature and private establishments or organizations, and G2G (Government to Government) for the communication between kindred government offices, and in addition G2E (Government to Employee) for collaboration between the legislature and its representatives (Alsaghier, Ford, Nguyen, & Hexel, 2009). Research in e-Government around the globe advances around different viewpoints, for example, e-Government status (Shah, Khan, & Khalil, 2011) e-Government basic achievement factors (Gil-García & Pardo, 2005), e-Government (framework) improvement (Pilemalm et al., 2016), e-Government (framework) assessment (Ebrahim & Irani, 2005), and so on. One of the variables that could cause a low level of e-Government utilize is open put stock in (Radiation, 2008). Trust is a critical develop which decides if individuals will utilize e-Government or not (Abu-Shanab, 2014; Alzahrani, Al-Karaghouli, & Weerakkody, 2017) (Alryalat, Dwivedi, & Williams, 2013) (Asmi, Zhou, & Lu, 2016; Azmi & Aziz, 2015; A. Lee & Levy, 2014; Mpinganjira, 2015). In any case, there is no generally acknowledged meaning of trust and it has drawn the consideration of numerous specialists (Carter & Bélanger, 2005) (Bigley & Pearce, 1998; M. K. Lee & Turban, 2001; Lewis & Weigert, 1985; Yoon, 2002) in (Tan & Sutherland, 2004) contended that trust various definition shows the decent variety of the points. From many articles that characterized the characteristics of trust, they incorporated that the larger part is loped on the thoughts of skill (capacity), consideration, and trustworthiness and the part of hazard in cultivating trust were additionally included (Mayer, Davis, & Schoorman, 1995). Further, keeping in mind the end goal to get a more comprehensive perspective of the put stock in develop, (Tan & Sutherland, 2004) proposed to use the trust measurements from various orders that would give a more extensive viewpoint to the online condition and could envelop the Trust in traits into the

different measurements. The picked disciplines are still firmly identified with the IS space, i.e., human science and brain research. In the field of brain science, the trust writing recognizes dependability (the capacity, altruism and honesty of a trustee), Trust in affinity a dispositional ability to depend on others from believe (the aim to acknowledge weakness to a trustee in view of uplifting desires of his/her activities) (Colquitt, Scott, & LePine, 2007). In their model, reliability and trust inclination were the precursors of trust. This outline gives the premise to the Trust in measurements in this investigation. In the meantime, in the field of humanism, trust is framed by the social relations rather than one's mental state (Lewis & Weigert, 1985; Tan & Sutherland, 2004). Along these lines, the measurements characterized in this investigation are given as takes after (Tan & Sutherland, 2004). (McKnight, Choudhury, & Kacmar, 2002) expressed dispositional trust is a man's propensity to rely upon others when all is said in done over an expansive range of circumstances and people and further stated this definition does not truly allude to a man's attribute while different examinations, could suggest something else. Joined the possibility of Trust and belief by and large others' ability, consideration, and trustworthiness and trusting position into dispositional trust. This is as per the (Colquitt et al., 2007) meaning of trust inclination as a dispositional ability to depend on others. Along these lines, the dispositional trust is characterized as a sort of trust which is the meaning of (Colquitt et al., 2007) as the goal to normally acknowledge helplessness to a man/organization when all is said in done. Trust is framed by the social relations rather than one's mental state (Lewis & Weigert, 1985; Tan & Sutherland, 2004). Further, institutional trust as per (Kachwamba & Hussein, 2009; Zucker, 1986) is the person's impression of institutional conditions, for example, structure, control, enactment, or frameworks/innovation benefits that could render the earth being trusted. In this manner, applying put stock in meaning of (Colquitt et al., 2007) institutional trust can be characterized as a kind of trust as the expectation to acknowledge defenselessness to institutional situations, for example, structure, control, enactment, or frameworks/innovation administrations. To be more exact, with regards to e-Government, institutional trust is characterized as the expectation to acknowledge powerlessness to e-Government frameworks/administrations.

Like (Hibbing & Theiss-Morse, 2002) he infers that home towner convictions around the honesty and responsiveness of cap in the ring forms are vital. The moa distinguishes two modes for the presentation of shut end venture organization that are mean babble for e-government: process-based speculation and institutional-based venture see other than (Moon & Norris, 2005; E. W. Welch, Hinnant, & Moon, 2004). The process-based venture is far from rehashed trades or connections by all of government. As a show of these communications, people partition in instrumental trades and gain what they ache for. However, there are other than emblematic trades. Thomas attests that one measurement of shut end venture organization depends on discernment that administration minds essentially natives, their necessities, and their desires particularly, a recognition that open is responsive. Institutional-based speculation is an expression of establishments as a substitute association, and it passes on a desire that foundations will "do what's right." Citizens confide in institutional blessing or past year institutional practice. In lavish ways, institutional-based venture speaks to a recognition held by respondents. Institutional activities that alter to an individual in the road desires make out upgrade a mental clinic's origination or notoriety. E-government has been going to be as a blend for expanding native correspondence by the entire of government offices and, at long last, political speculation (Birchall, Street, & Clift, 2002; Chadwick & May, 2003; Norris & West; Peterson & Seifert, 2002; Tapscott, 1997; Tat‑Kei Ho, 2002). The printed material on e-government distinguishes two diverse regardless existing together change standards committed.

Accessibility influence on citizen's satisfaction in trust in E-Government
The Internet may be very fast paced and massive resource of record and services. A nicely programmed and built E-Government Portal as converted as a crucial method to interact with the citizens of the country to get the attention of the public association facts and revitalize their E-participation and renew their E-interest. Government Portals perform their duties as a mean and channel for both advertising and correspondence for general residents of the country. Data and Information provided by the E-government Portal can be used with and trans-situated nationals to outside partners effortlessly (Moon, 2002). "Web accessibility is to inspire individuals to see, utilize, explore, comprehend and associate with the web (Henry, 2006)."

Meaning of availability or accessibility as per the International Standards Organizations (ISO) is "the ease of use of an item, administration, condition or office by individuals with the most stretched out scope of capacities." (Gummerus, Liljander, Pura, & Van Riel, 2004). Portrayed the User Interface (UI) as the mean by which clients are in contact and communicating with E-service Providers. Kim and Kwan (2003) portrayed that the nature of UI specifically impacts on consumer loyalty; giving physical contention of specialist organization's competency and aiding easy utilization of significant administration. (Tan, Tung, & Xu, 2009) portrayed because of significance to consumer loyalty by recognizing 14 key components for building up an effective B2C web-based business-related sites. (Gummerus et al., 2004) recommended that the real nature of UI should straightforwardly impact trust. (Christine Roy, Dewit, & Aubert, 2001) found that client direction, the simplicity of route and interface configuration straightforwardly effect on customer perspective of trust.

Additionally; (Srinivasan, Anderson, & Ponnavolu, 2002) found that the intuitiveness perspective of web-

based business frameworks and applications is unequivocally appended to client reliability. (Cyr, 2008) Portrayed the effect of B2C web-based business site UI assigned elements (route outline, data plan, and visual plan) on Satisfaction and trusted crosswise over three created nations; Germany, Canada, and China. Cyr likewise found that the UI configuration related factors are a key reason to e-Satisfaction site and trust crosswise over various societies.

In this article, availability is depicted as the Pakistan nationals' percept of UI nature of the Pakistan e-Government entry to lead government related exchanges from the particular area through all the day (24h). By keeping in View all of the above accessibility definition and relationship between accessibility and E-Government we have developed the following Hypothesis:

*Hypothesis 1***:** *Citizen's satisfaction mediates the positive relation between accessibility of e-services and trust in e-government.*

Security Influence on Citizens Satisfaction in Trust in e-government

The most basic perspective in web-based business is Information security concerns. Clients and organizations are continually posting secret and private write data to sellers and customers on the web. Expanding number of these operations builds greater security/digital assaults, for example, e-business shutdown, information burglary, and malignant record defilement. Cronin (1995) portrayed a few issues like restriction and security would endeavor to anticipate correspondence. It is clear to watch that security is one of the critical components to the development and the uprightness of e-business. Influencing Satisfaction and trust; security is to keep the customers acquire securely from any infiltration to their protection. As a profound relationship of security to trust; offenses of security infringement might be misinterpreted by the reality to raise negative verbal exchange and to lose clients (Dixit & Datta, 2010).

For our present article security and protection is depicted as the Pakistani nationals' impression of the Pakistan E-Government Portal as exceedingly secure stage with no irregularity after utilizing e-Government and competency to discover to what degree and when data and significant things about them are passed on to others while to support privateers. By keeping in view all of the above security definition and relationship between security and E-Government we develop the following hypothesis

*Hypothesis 2***:** *Citizen's satisfaction mediates the positive relation between the security of e-services and trust in e-government.*

Perceived Usefulness Influence on Citizen Satisfaction in Trust in E-Government

With advanced and Modern Tools, e-government benefits citizens more than conventional methods for reaching government organizations. Citizens utilizing e-government get different advantages, which establish the frameworks of resident fulfillment. Through e-government, natives accomplish higher-quality, more straightforward, helpful, and disentangled open administrations. Notwithstanding, extraordinary clients may have the diverse impression of the advantages accomplished by indistinguishable e-government from they have their particular desires and comprehension. Along these lines, we estimate that apparent advantages play an interceding impact on the connection between e-government execution and national fulfillment. Client fulfillment with e-government is one of the key ways to deal with national driven e-government advancement (Verdegem & Verleye, 2009). Clients outline their evaluations of online administrations by the advantages they see from utilizing these administrations (Udo, Bagchi, & Kirs, 2010). Natives will be happy with e-government just when they see profits by utilizing the online highlights, which is very extraordinary because of their qualities and foundations. In earlier examinations, saw convenience and handiness are observed to be among the key drivers of client acknowledgment of e-taxpayer supported organizations (Huang, 2006). Citizens embracing and tolerating e-government are observed to be more satisfied with government sites (Chan et al., 2010). Nationals seeing quality data and administrations gave by government sites are observed to be by and large happy with e-government (Morgeson & Petrescu, 2011). Exceedingly positioned e-taxpayer supported organizations will probably profit nationals through the helpful, effective, and valuable procedure of administration conveyance. Very much outlined and productively worked government sites are more valued by nationals because of different advantages apparent through the procedure of online administration conveyance and cooperation. Natives picking up the previously mentioned benefits will probably be happy with e-government:

*Hypothesis 3***:** *Citizen's satisfaction mediates the positive relation between perceived usefulness of e-services and trust in e-government.*

Satisfaction Influence on Satisfaction in Trust in e-Government

Specialists professionally create e-government rankings, and their segments and pointers, in principle, mirror the Centre properties of e-government. Government sites positioned exceptionally in these association tables are very much composed, effectively explored, easy to use, and complete in scope, and these highlights ought to produce quality online administrations to satisfy their objective clients. Regardless of being from various sides,

target pointers of these rankings and subjective view of natives could create predictable examples. ICT has opened up numerous potential outcomes for enhancing inward administrative effectiveness and the nature of open administrations conveyance to nationals (Moon, 2002). Upheld by cutting-edge ICTs, e-government has different points of interest that conventional channels need. It is discovered that residents with experience of the utilization of government sites are More Satisfied with e-government (M. R. Welch et al., 2005). Better administrations with advantageous conveyance and lower costs live up to natives' desire well and prompt higher Satisfaction. Proof from the US uncovers that the utilization of government sites, especially those of elected offices (rather than nearby and state ones), is emphatically identified with a native assessment of government execution (Tolbert & Mossberger, 2006). What's more, e-government execution could in a roundabout way add to the ascent of native Satisfaction through government trust. Found that the connections among e-government, Satisfaction, and trust are emphatically identified with each other. All around composed e-government brings natives the impression of straightforwardness, responsiveness, and productivity, creating a more elevated amount of trust and Satisfaction.

In this way, e-government empowers residents to comprehend better and examine government operations, making government more mindful and responsive, as demonstrated by the principal– operator speculations:

Hypothesis 4: There is a direct positive relationship between citizen's satisfaction and trust in e-government.

Theoretical Framework

In the context of Government-to-Citizen category of e-government, there are two major objectives: providing citizens with effective information access and providing citizens with access to full range of e-government services online (National Research Council, 2002). The basic idea behind e-government is to allow citizens to interact with their government through the internet; for example, they ask questions and receive answers, get updated government regulations, obtain government official documents, fill applications, pay tax and bills, receive payments, and forth. The two forms of citizens' engagement in e-government are receiving e-government information and requesting e-government service (Warkentin, Gefen, Pavlou, & Rose, 2002)The following research model describes how citizens' trust can affect their intention to engage in e-government.

The theoretical research model (see Figure 1) consists of three constructs that delineate the conceptual model of citizens' trust in e-government. The model attempts to formulate an important number of factors that have been observed to affect citizens' trust in e-government. These factors have been integrated from different models of trust that are existed in the literature. The proposed model applies to Government-to-Citizen (G2C) situation, and it delineates the roles of significant factors in the process of trust in e-government. Following is the theoretical review in which each construct is derived.
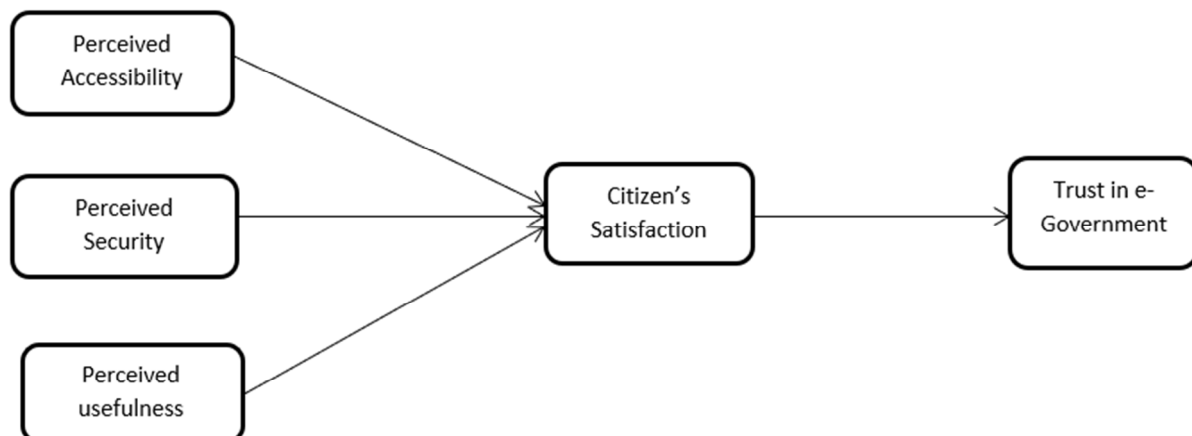

Figure 1-Theoretical Model

Research methodology

Sampling Techniques

This research was quantitative and used purposive sampling. The target respondent in this study is ordinary citizens who have used e-Government (G2C) services of central government agencies in Pakistan. The ordinary citizens as respondents are expected to represent the users of the central government agencies' and to give their opinions as the services recipients. Then, as users, they evaluated e-Government services based on their system quality, information quality, and service quality. Subsequently, as citizens, they evaluated their trust towards e-Government services as well as the providers, viz., the central government agencies.

Before questionnaire distribution, readability test was performed to 10 respondents of various backgrounds. Readability test needs to be conducted to assess whether the questionnaires are properly developed to accomplish

the research goals, viz., by investigating respondent's understanding towards each question/statement, by checking typographical errors, and by asking suggestions for ambiguous questions/statements. This was performed to lessen the effect of confirmation bias as the researchers might be tempted to structure the questionnaires misleadingly because of our prior beliefs. Thus, having feedbacks from these respondents gave us some hints if the questions are misleading. Next, we conducted a pilot study which involves 30 respondents to validate each indicator in the questionnaire. From the pilot study, we found that items in the questionnaires have passed the validity and reliability test. And then 385 respondents were taken under the study. The data collection was performed by distributing questionnaires online to several communities contained in the e-Government as well as an online student community. These communities were chosen for the high number of active members and fairly well-distributed over regions. To address common method bias, Harman's single factor analysis was performed which confirmed that common method bias is not an issue (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). In addition, multi-source data were collected which further reduced concerns related to common method bias.

Measures

Perceived Accessibility: Perceived accessibility was measured by 7-items scale adopted from Gilbert, Balestrini, and Littleboy (2004). The sample items include "It is easy to find the information I need", and "I find the website is easy to use". The responses were measured on a 5-point Likert scale, 1= strongly agree, 5= strongly disagree.

Perceived Security: Perceived security was measured by 4-items scale adopted from Bélanger and Carter (2008). The sample items include "I feel assured that legal and technological structures adequately protect me from privacy problems on the e-service", and "My personal data provided in this e-government site are archived securely". The responses were measured on a 5-point Likert scale, 1= strongly agree, 5= strongly disagree.

Perceived Usefulness: Perceived usefulness was measured by 3-items scale adopted from (Davis, 1989). The sample items include "e-government services provide me with useful information that helps me to buy the ticket", and "e-government services make my purchasing process a pleasant one". The responses were measured on a 5-point Likert scale, 1= strongly agree, 5= strongly disagree.

Citizen's Satisfaction: It was measured by 5-items scale adopted from S. Colesca and Dobrica (2008). The sample items include "I am satisfied with the content of the e-service", and "I am satisfied with the speed of the e-service". The responses were measured on a 5-point Likert scale, 1= strongly agree, 5= strongly disagree.

Trust in e-Government: It was measured by 8-items scale adopted from Bouckaert and Van de Walle (2003). The sample items include "I trust state government agencies", and "I trust state government agencies keep my best interests in mind". The responses were measured on a 5-point Likert scale, 1= strongly agree, 5= strongly disagree.

Control variables: By following the prior researchers (Bélanger & Carter, 2008; S. E. Colesca, 2009; Parent, Vandebeek, & Gemino, 2005; Warkentin et al., 2002) which advised to control certain demographic variables for better analysis; we controlled respondents' sex, age, education, and personal income.

Data analysis

Descriptive Statistics

Table 1 presents the mean, standard deviation, intercorrelations, and estimated reliabilities amongst the key variables of the study. Table 1 also demonstrates that perceived accessibility of e-government, perceived security of e-government, and perceived usefulness of e-government is positively correlated with citizen's satisfaction (B=0.17,p<0.01), (B=0.36,p<0.001), and (B=0.29,p<0.01). Similarly, it also shows that perceived accessibility of e-government, perceived security of e-government, and perceived usefulness of e-government is positively correlated with trust in e-government (B=0.18,p<0.05), (B=0.11,p<0.05), and (B=0.24, p<0.05). Similarly, citizen's satisfaction is also positively correlated with trust in e-government (B=0.22, p<0.01). These results provide preliminary support for our theorized hypotheses.

Table 1 Descriptive statistics, reliabilities and Intercorrelations among variables

Variables	M	SD	1	2	3	4	5	6	7	8	9
1. Gender	1.62	.52	--								
2. Age	2.02	.66	.12	--							
3. Level of Education	2.49	.48	.15	.12	--						
4. Income	2.68	1.01	.12**	.29	.16	--					
5. Perceived Accessibility of e-Gov.	2.89	1.22	-.22	.46	.18	.49	(.71)				
6. Perceived Security of e-Gov.	2.73	.56	-.09	.29	.09	.33*	.19	(.82)			
7. Perceived usefulness of e-Gov.	3.97	.26	-.03	.32	.18	.12	.16	.51**	(.77)		
8. Citizen's Satisfaction	3.12	.59	-.16	.28	.27	.37	.17**	.36***	.29**	(.76)	
9. Trust in e- Gov.	2.88	.88	.12	.23	.32	.28	.18*	.11*	.24*	.22**	(.83)

Note: Significant at: *$p < .05$; **$p < .01$; ***$p < 0.001$; $n = 385$.

Tests of Mediation

An extension of SPSS macro, namely PROCESS macro developed by Hayes (2013) was used to test all the hypotheses. Table 2 presents our findings for hypothesis H1 to H4. The findings support our hypotheses that perceived accessibility of e-government, perceived security of e-government, and perceived usefulness of e-government is positively linked with citizen's satisfaction (B=0.64, t=12.06, p<0.001), (B=0.48, t=8.82, p<0.01), (B=0.41, t=7.86, p<0.01). Likewise, citizen's satisfaction is positively associated with trust in e-government (B=0.31, t=3.22, p<0.001). Sobel test with a bootstrapped 95% confidence interval (C1) was used to check the indirect effect of perceived accessibility, perceived security, and perceived usefulness on trust in e-government, which was revealed to be significant (Sobel z=1.78, p<0.001) (Sobel z=2.28, p<0.001), (Sobel z=2.41, p<0.001); and validated that the bootstrapped C1 did not contain zero (0.02, 0.21), (.06, 0.29), and (.01, 0.27) These results provide support for Hypothesis 1 to hypothesis 4 i.e. perceived accessibility, perceived security, and perceived usefulness is positively indirectly related to trust in e-government through mediating effect of citizen's satisfaction.

Table 2 Regression analysis results for mediation

Antecedents	Mediator Citizen Satisfaction				Dependent Variables Trust in e-Government			
	B	SE	t	R^2	B	SE	t	R^2
				.51***				.44***
Constant	-.13	.52	-.31		.32	.45	1.29	
Perceived Accessibility	.52	.45	9.16***		.56	.26	10.01***	
Perceived Security	.48	.41	8.82**		.32	.15	9.91***	
Perceived Usefulness	.41	.24	7.76**		.55	.29	10.59***	
Citizen's Satisfaction					.31	.15	3.22***	
Gender	.10	.18	.09		.09	.18	1.38	
Age	.17	.03	.55		.87	.47	.65	
Level of Education	.08	.07	.35		-.14	.21	-1.52*	
Income	-.07	-.09	.52		.32	.14	.48	
					Effect	SE	LLCI	ULCI
Indirect effect of perceived accessibility					.04	.03	.02	.21
					Effect	SE	z	
Normal theory tests for indirect effect					.12	.06	1.78***	
					Effect	SE	LLCI	ULCI
Indirect effect of perceived security					.02	.05	.06	.29
					Effect	SE	z	
Normal theory tests for indirect effect					.16	.08	2.28***	
					Effect	SE	LLCI	ULCI
Indirect effect of perceived usefulness					.14	.04	.01	.27
					Effect	SE	z	
Normal theory tests for indirect effect					.11	.08	2.41***	

Note: $n = 385$; Significant at: *$p < 0.05$; * *$p < 0.01$; and ***$p < 0.001$; Unstandardized regression coefficients are displayed; Bootstrap sample size = 5000; LLCI = Bias corrected lower limit confidence interval; ULCI = Bias corrected upper limit confidence interval.

IISTE

Discussion, Limitations, and Conclusion

As we have seen in our research that the samples are taken from different backgrounds and areas we come to the conclusion that the services of E-government and availability and access to this application and services have done positive influence on the satisfaction and trust of the citizens in the Government and all the related branches and options of the government which not only increase productivity and enhance the output but it also favours the growth of the country and groom the public as well in there general and political sociological and economic causes as well. If the services of the government are spread all over the country in those areas as well where it is difficult for people to raise their issues easily to the responsible authorities it should be very fruitful for the country for the individual and for the government systems as well. There are few limitations as well i.e availability of the technological knowledge to the general public, availability of the internet to non-developed areas of the country and less interest to the technology and following the traditional protocols for problem-solving and decision making as well. The future researchers must have increased the scope of sample size and variables to further aid the research, this research provide baseline for them to overcome and explore the necessarily areas for the research. This was inside and out assessment process yet it appeared, with almost certainly, that the administration sites in the nation still need impressive endeavors to wind up noticeably open sites by any stretch of the imagination. It additionally uncovered that there exists an abundance of Accessibility assets and availability rules that are usable and sound, yet absence of mindfulness obstructs their utilization. It appears that the administrations in this part of the world have not yet gotten a handle on the significance of giving administrations to that piece of the populace with unique needs. Governments in the nations need to audit their Accessibility related approaches to quicken the change to available e-Government sites. Additionally, it should chip away at spreading consciousness of equivalent open door for all customers, e.g. debilitated and in addition non-crippled guests to sites. In view of the work depicted in this paper, the creators might want to prescribe the accompanying issues as basic starting advances. Site improvement requires distinctive IT aptitude as far as Accessibility, ease of use, security, UI outline and so on accordingly the administrations need to accelerate the way toward gaining such abilities by concentrating on IT establishments to expand the quantity of understudies who have enough instruction on new innovations. Likewise, foundations should instruct progressive innovations .Government ought to either adjust the current web Accessibility rules or build up its own particular rules that are proper for their unique circumstance. Likewise, government should set an approach for web availability together with an authorization methodology e.g. make the availability of government sites an obligatory prerequisite. A motivator or reward for the individuals who oblige site availability may advance great web Accessibility. Considering site availability toward the start of the site improvement process will diminish the cost related rather than doing that at a later stage. All in all, legislatures need to comprehend the hindrances to making e-Government's sites open and ought to receive the suitable answer for enhance it. They need to spread the consciousness of the significance of open destinations by creating a fitting and enforceable arrangements. Understand that all e-Government tries are fundamentally subject to the availability of its necessary sites. On the off chance that a site isn't available to the expected target clients, it won't be effective. At long last, associations looking after incapacitated individuals have a duty to spread the mindfulness among government associations for making e-Government sites open. The effective usage of e-Government site Accessibility would empower impaired people groups to get included straightforwardly in the group accordingly improving it for all.

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