



E-Satisfaction from E-government Services after E-Participation: A Perspective of E-Service Users (Citizens)

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Abstract

In the improvement or deterioration and continual usage of e-government services, users of e-government services are the most important characters in the satisfaction of e-government in Pakistan. The current study aimed to measure Pakistani users' satisfaction with e-government service apps and websites. Five hypotheses are framed and key factors (Trust, Citizens' Involvement, Reduction of Corruption, Transparency, Effectiveness, and Efficiency of e-services). The influence of Pakistanis' satisfaction level with the e-government based on the corresponding literature review is identified in the study. To investigate the proposed hypotheses, survey data was gathered from 310 citizens of Pakistan. The data is analyzed using SPSS, leading to numerous significant findings. These findings emphasize the worth of understanding the main drivers of e-satisfaction to make available endorsements for generating e-government thresholds that are aligned with the expectations and needs of the users. They also propose valuable understandings for government policymakers and general practitioners to develop e-government portals by making an allowance for several factors.

Keywords: *e-government, Government to Citizens, Information and Communication Technology, Pakistan Citizen Portal, Pakistan Telecommunication Authority, National Database Registration Authority, Citizens Involvement, e-Service Delivery, Trust, Efficiency, Effectiveness, Public Satisfaction.*



Introduction

Ensuring a seamless government-citizen relationship remains a dominant objective. Initiatives falling under G2C are precisely crafted to assist and simplify engagement between governmental bodies and citizens, to provide timely, accessible assistance from anywhere (Asgarkhani, 2005). The essence of G2C resolves fostering efficient and effective information communication between the government and citizens through the internet (Asgarkhani, 2005). Citizens stand to gain sustainability from these governmental interactions, as G2C initiatives span a diverse scope of active engagements that can be cultivated (Shailendra C, 2007). This comprehensive variety of services encompasses the provision of excellent public services. Such services span activities like renewing licenses and certifications, enhancing access to educational information, ensuring prison security, facilitating tax payments, enabling benefit applications, and permitting the online retrieval of government forms via the Internet (Asgarkhani, 2005); (Shailendra C, 2007). Beyond service provision, G2C platforms also empower citizens to play a part in policymaking and engage in e-voting on matters relevant to their interests or society at large, employing secure and expedited pathways (Shailendra C, 2007).

Pakistan is an underdeveloped country located in the southern area of the Asian region. The emergence of e-government in Pakistan came into existence when Pakistan took its very first initiative. This determination of initiative was to support the technological tasks of Pakistan that are associated with information communication technologies through e-government services (Nishat, 2022). For this purpose, the Electronic Government Directorate (EGD) was launched as a subunit of the Ministry of Science and Technology. The basic determination of creating EGD in Pakistan was to form strategies that offer a procedural endorsement for the plans, like e-government. The projects of e-government in Pakistan are eminent from the experiments of other Asian countries as it is incorporated at the domestic level of the state (Alawneh *et al.*, 2013). The aims of such projects include improvement of conventional government performance in terms of the delivery of services, time and cost-effectiveness, efficiency, transparency, accuracy, cross-governmental integration, and high levels of customer satisfaction (MoICT, 2013). EGD was allotted for stipulating assistance and to lead in coordination struggles to execute the e-government in Pakistan, as per the requirement of the government agencies contributing to the effective e-government execution (Odat & Khazaaleh, 2012).



Pakistan Telecommunication Authority (PTA) and the National Database Registration Authority (Nadra) are accentuated projects established by the ICT sector of the government of Pakistan. Making available online services to its citizens at their doorsteps is the key function of governments, which will enhance the citizens' gratification (Kumarwad & Kumbhar, 2016). Various stakeholders are availing the services of e-government, including citizens, corporations, project managers, the workforce, officers, and agencies in the public sector (Smitha *et al.*, 2012). A few decades ago, the government of Pakistan started some online initiatives. Later, the majority of the central and state-level departments of governments introduced ICT projects.

Background

With the origin of information and communication technology (ICT), the ways of doing work by governments, organizations, and individuals were also renovated drastically. Likewise, government organizations have understood the significance of the Internet and started serious renovations to provide users with easy access to e-services by using it, irrespective of their locality (Karim, 2003). According to (Fang, 2002), e-government is demarcated as a planned strategy for a government to connect front-line ICT services, mostly through web-based internet uses, in their activities to enhance service delivery and nurture a more active commitment with the citizens. E-government is used in various terms, such as digital government, electronic governance, and other such terminology (Grönlund & Horan, 2005). In general, the provision of information and services to businesses and citizens through the Internet can be stated as e-government (Tohidi, 2011); (Norris, 2010). With the first usage of the term "electronic government", e-government is somewhat the latest term from the late twentieth century in US National Performance Review (David Coursey, 2008). But it has just gained importance with the spread of the internet all over the world (Rajiv Kumar, 2018).

In providing an additional right to the citizens to access information and online services, these applications play an imperative role in improving the excellence of facilities and raising prospects for autonomous organizations. Since the last decade, exceptional courtesy has been specified to e-government projects by the government of Pakistan, which has produced a massive transformation in government departments. The speedy evolution of e-government inventiveness replicates its captivating benefits, such as improved governmental performance, accountability, more transparency, the possibility of services, inferior cost structure, extensive measures, more



flexibility, and quick transactions. However, supporting nonstop commitment to e-government services is an encounter, as consumers can simply get away with only a few mouse clicks.

Problem Statement

Satisfaction of customers from online services and applications (online banking service, online tailing applications, online ticketing, online employment service, etc.) in several countries is explored empirically through various studies (Flavián & Guinalú, 2006); (Cyr, 2008); (Kim *et al.*, 2009). While there is a shortage of significant empirical research that tests the satisfaction of users of G-C online services in an underdeveloped country such as Pakistan, the mainstream research described in the review of the literature still depends on e-services in technologically advanced countries. Moreover, there is also a shortage of empirical indications to assess satisfaction with online services and their effects on the improvement or deterioration of online applications. The reason behind this shortage of empirical study is the trouble of emerging procedures and data gathering (Alawneh & Hattab, 2009a, 2009b).

The connection of e-government with the users of online services and the component of improved governance is the research problem of the current study. This study anticipates measuring the ultimate persuasive satisfaction of Pakistani citizens with the online services delivered by the portals of e-government portals in Pakistan through components of improved governance. These components include trust, citizen involvement, reduction of corruption, transparency, efficiency, and effectiveness of e-services. Factually, the measurement of users' satisfaction has been done ultimately, mainly concentrating on the trust, citizen involvement, and reduction of corruption, transparency, effectiveness, and efficiency of e-services. Therefore, these components are described in the upgrading of the portals of e-government in Pakistan.

Significance of the Study

To identify the users' satisfaction with online services delivered by the government of Pakistan is the key purpose of current research. Thus, current research makes contributions towards the e-government field, mainly in the zone of e-government execution initiatives. It may also be the best source to suggest superlative ways to enhance limpidity, answerability, communication, and association between the government and citizens. Moreover, the current research study will emphasize determining the gaps between the efforts of the government to execute e-government and users' hopes for acceptance and to practice it.



We claim that the key contribution of current research will assist in determining the dominant components behind the satisfaction of the users and will ultimately support Pakistani proposers of e-government, policymakers, designers, and practitioners in focusing their hard work on central satisfaction factors in the portal of e-government. An increase in the acceptance by citizens and optimistic feelings after e-government use will hopefully be contributed by this research.

Objectives of the Research

The causative role of e-government, in actuality, can lead to a substantial transition in Pakistan through the best services provided to the users (Alomari et al., 2012). To assess the user's satisfaction with online services delivered by e-government in Pakistan, the objectives of the study are given below:

- To recognize the enthusiasm of the users of e-services provided by e-government.
- To evaluate the level of satisfaction of citizens over e-services provided by e-government in Pakistan.
- To find the key structural and procedural flaws restraining users from accessing the e-services delivered by the e-government of Pakistan.

Literature Review

(Lee & Chung, 2009) studied the examination of e-satisfaction and repurchase conduct in e-commerce. He suggested that system satisfaction, website information satisfaction, and inclusive quality of e-service play a crucial role in developing e-satisfaction. (Wang & Liao, 2008) study exposed that information quality has an important effect on both usage and user satisfaction.

(Zavareh *et al.*, 2012) have studied the influence of the quality of online service on the satisfaction of e-customers. The findings specified that effective and consistent services, satisfaction, trust/security, responsiveness, and comfort of usage establish the quality of e-service for e-services. (Welch et al., 2005), (Hamner & Al-Qahtani, 2009), (Bannister & Connolly, 2011) suggested that the citizens would be willing to experience e-government if it became accessible. (Welch et al., 2005) have determined trust of citizens in the government. The authors revealed that the users with more trust in government show more satisfaction with e-government, and vice versa. (Hamner & Al-Qahtani, 2009) examined the enthusiasm of citizens to avail e-



government services if they were available. It is also suggested that the anticipation that technology-supported transformation can improve the trust of the citizens, by this means of renovating governments, may be extraordinary.

(Karunasena & Deng, 2012) have recognized the serious aspects of appraising the citizen's satisfaction with e-government. Research revealed that the delivery of services and information excellence, orientation of services and information, the effectiveness and reaction of government entities and assistance of government entities to environmental sustainability are the serious issues for appraising the citizens' trust in e-government in a country. Findings from the (Datta, 2010) study show that numerous elements such as innovation, awareness level, privacy and security, and trust raise the reception of e-services among customers. (Al-Jaghoub et al., 2010) evaluated aspects that could affect the familiarity and usage of services by e-government. Problems examined by them include the approachability of e-government, citizens' attitudes toward security and privacy, essential services, and charges.

According to the ECT theory, it is stated that before buying, the consumer first forms a preliminary anticipation and then forms opinions regarding the performance of the disbursed service or product after preliminary consumption. Afterward, the consumer, based on the degree to which his belief is established by connecting the definite performance of the services or products counter to his preliminary anticipation of the performance, decides on his level of satisfaction. Thus, consumers are satisfied with repurchasing plans. Satisfaction is thoroughly connected with service excellence and comprises both a mental dimension and a behavioral aspect generated by experience and driven attitudes (Oliver, 1999).

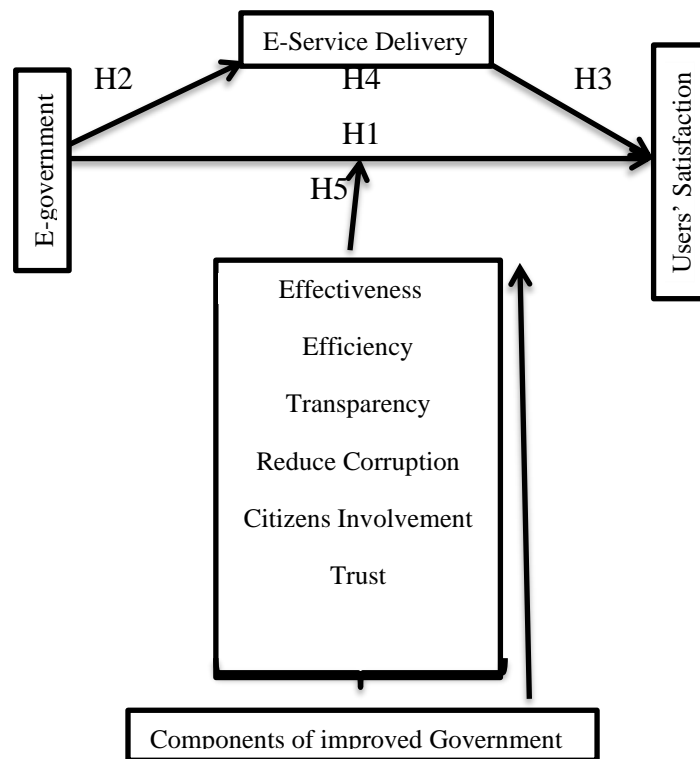
However, dissatisfaction among users using e-services might arise due to a lack of trust, citizen involvement, increased corruption, and inefficiency of the delivery of e-services, which causes an undesirable perception of the quality of the efficient service. In the current research, the e-satisfaction construct is demarcated as the feelings of the citizens of Pakistan regarding e-government.

Research Methodology

Based on the review of the literature, a survey questionnaire comprises (30) questions regarding the respondents' perception of e-satisfaction with the e-services by the government of Pakistan. The online survey questionnaire comprised of the questions related to key factors including trust,

citizens' involvement, reduction of corruption, transparency, efficiency, and effectiveness. The questionnaire is used to create measures using various items. The questionnaires are comprised of two parts: the first part is based on the demographic characteristics of respondents, including gender, age, qualification, work experience, etc. A convenient sample of 310 citizens with minimum qualifications of graduation and age of 18 years old was collected. The questionnaire is directed by electronic mail to the respondents. 315 questionnaires with a 52% response rate were returned. The second part is intended to identify the respondents' opinions regarding e-government, governance components, e-service delivery, and users' satisfaction. Less return of questionnaires was due to a lack of interest in response. For data analysis, SPSS software was employed (Bourque & Clark, 1992). For the data obtained from respondents, descriptive statistics are considered; reliability and validity are also determined. Cronbach's alpha coefficient is used by considering the central uniformity of items to measure the validity and reliability of the data. The variables in the framework are dependent on the whole context and objectives of the research. This study aims to examine the satisfaction of users with e-government in Pakistan. Based on the preceding theoretical discussion, five hypotheses are developed.

Figure 1





In this model, H1 examines the impact of e-government on users' satisfaction. On the other hand, H2 identifies the effect of e-government on e-Service Delivery and H3 identifies the effect of e-Service Delivery on users' satisfaction. However, H4 plays the role of mediator between the relationship of e-government and the users' satisfaction. Moreover, H5 examines the moderating effect of components of governance on users' satisfaction.

From the literature, it is found that citizens' contribution to e-government in the form of acquiring e-services will cause an improvement in transparency through ultimate reduction of corruption. Systems will work efficiently and will result in effectiveness in the provision and availability of e-services, which results in users' satisfaction. Literature also poses a strong positive relationship between e-government and e-service delivery. Successful e-governance is only possible if and only if e-services are delivered effectively to the citizens. In this regard, e-service delivery plays a role as mediator between e-government and the components of improved governance. As primary stakeholders of the current study are e-government users. Hence, net benefits are discernment of trust and satisfaction realized by these users. Discernment of net benefits is captured in terms of citizens' involvement, reduced corruption, improved transparency, effectiveness, and efficiency. Progressive experience with e-governance will result in improved user satisfaction, net benefits will be realized, and a perception of trust will be created for citizens. In the context of e-government, satisfaction is a citizen's valuation of how effectively government services encounter their potential. The following hypotheses are postulated to support the above discussion.

H1: Competitive e-government will have more extensive users' satisfaction.

H0: Competitive e-government will not have more extensive users' satisfaction.

H2: The use of e-government leads to increased perceptions of the accessibility of e-services.

H0: The use of e-government does not lead to increased perceptions of accessibility of e-services.

H3: A positive attitude toward e-Service delivery leads to increased users' satisfaction

H0: A positive attitude toward e-service delivery does not lead to increased users' satisfaction

H4: E-service delivery mediates the association between e-government and users' satisfaction.



H0: E-service delivery does not mediate the association between e-government and users' satisfaction.

H5: Components of improved governance have a moderating role between e-government and users' satisfaction.

H0: Components of improved governance have not a moderating role between e-government and users' satisfaction.

Analysis and Discussion

Descriptive & Normality Analysis

Table 1 displays the descriptive statistics and normality of all items for all the variables (e-government, e-service delivery, users' satisfaction, and improved governance). All the items for service delivery are coded as mentioned in the table. Different statistics like minimum, maximum, mean, standard deviation values, skewness and kurtosis are also presented.

Table 1
Descriptive and Normality Analysis

	Minimum	Maximum	Mean	Std.	Skewness	Kurtosis	
	Statistic	Statistic	Statistic	Deviation Statistic	Statistic	Std. Error	Statistic Std. Error
EG1	1	5	2.74	.996	-.123	.138	-.805 .276
EG2	1	5	2.58	.958	.102	.138	-.899 .276
EG3	1	5	2.55	.977	.180	.138	-.776 .276
ESD1	1	5	2.65	.875	.341	.138	-.322 .276
ESD2	1	5	2.73	.905	.035	.138	-.654 .276
T1	1	5	2.60	.956	.057	.138	-.798 .276
T2	1	4	2.62	.927	.074	.138	-.928 .276
CI1	1	3	1.06	.345	5.315	.138	26.858 .276
CI3	1	5	2.79	1.062	.208	.138	-.389 .276
CI4	1	5	2.97	.915	-.121	.138	-.420 .276
CI5	1	5	2.70	.967	.257	.138	-.151 .276
CI6	1	5	2.54	1.134	.193	.138	-.800 .276
CI8	1	5	2.87	1.194	.228	.138	-.761 .276
CI9	1	5	3.10	1.030	-.327	.138	-.688 .276
CI10	1	5	2.92	1.090	-.096	.138	-.909 .276
Trans	1	5	2.82	.939	-.097	.138	-.920 .276
Corrup	1	5	3.31	1.043	-.131	.138	-.995 .276
Efficiency1	1	4	2.53	.880	.088	.138	-.713 .276
Efficiency2	1	4	2.54	.883	.024	.138	-.717 .276
Effec1	1	5	2.48	.831	.086	.138	-.373 .276
Effec2	1	4	2.44	.801	.155	.138	-.417 .276



Effec3	1	4	2.42	.807	-.014	.138	-.501	.276
PS1	1	5	2.48	1.023	.153	.138	-.819	.276
PS2	1	5	2.51	.961	.095	.138	-.857	.276
PS3	1	5	2.50	.934	.201	.138	-.548	.276
PS4	1	5	2.53	.923	.250	.138	-.428	.276
PS5	1	5	2.68	1.029	.072	.138	-.599	.276
PS6	1	5	2.68	1.116	.030	.138	-.924	.276
Valid N (list wise)								

Table 1 demonstrates that in the survey questionnaire, five Point-Likert scales ranging from strongly disagree to strongly agree are used, so all the items of e-government (except CII1), e-service delivery, users' satisfaction, and improved governance lie between the maximum range of 5 and the minimum range of 1. The other values obtained from statistical analysis also illustrate that as the skewness and kurtosis values are within the range of + / - 2, data is distributed normally.

Reliability Analysis

Cronbach's Alpha values >0.70 are considered acceptable by SPSS. Given table 2 depicts the values of Cronbach's Alpha in the research data. Thus, the table illustrates that Cronbach's Alpha values of variables of the framework are within this acceptable range.

Table 2
 Reliability Analysis

S. No	Variable	Cronbach's Alpha
1	E-government	0.710
2	E-service Delivery	0.732
3	Components of Improved Governance	0.831
4	Users' satisfaction	0.708

It is shown in table 2 that the value of Cronbach's alpha for the e-government is 0.710, which is greater than 0.70. Also, the value of Cronbach's alpha for e-service delivery is 0.732, components of improved governance are 0.831, and for barriers is 0.708. All these values are greater than 0.70 and hence the instrument is reliable.

Correlation Analysis

Correlation analysis shows the relationship between variables of the study. The association shows whether there is a difference between two variables (either in the form of increasing or



decreasing). Correlation therefore exists between values of -1 and +1.

The correlation coefficient, which forms the dependency between two appraisals, is examined via Pearson correlation analysis. The limits for the coefficient of correlation are -1 to +1 (according to positive and negative values that indicate a positive or negative link between the components).

Table 3
Correlation Analysis

S. No	Variables	1	2	3	4
1	e-government	--			
		310			
2	eService Delivery	.563**	--		
		.000			
		310	310		
3	Components of Improved Governance	.505**	.589**	--	
		.000	.000		
		310	310	310	
4	Users' satisfaction	.369**	.450**	.636**	--
		.000	.000	.000	
		310	310	310	310

** . Correlation is significant at the 0.01 level (2-tailed).

The above table represents the verified correlation of study variables. E-government has a positive and important relationship with e-service delivery ($r=0.563$), components of improved governance ($r=0.505$), and users' satisfaction ($r=.369$). Also, e-service Delivery has a positive and significant relationship with components of improved governance ($r=0.589$), and users' satisfaction ($r=.450$). Similarly, components of improved governance have a significant relationship with users' satisfaction ($r=0.636$).

Mediation Analysis

(Preacher & Hayes, 2008) model 4 in SPSS is conducted in order to check the mediating effect of e-service delivery between e-government (IV) and users' satisfaction (DV). Mediation analysis is performed to check the significance and impact of a mediator and whether it mediates or not between the association of an independent variable and the dependent variable. E-government in the current study is used as independent variables (X) and users' satisfaction as a dependent variable (Y), and e-service delivery as a mediator (M).

For mediation analysis, the effect of e-government (X) on e-service delivery (M) indicated by

path a, the influence of e-service delivery (M) on users' satisfaction (Y) by path b, the direct effect of e-government (X) on users' satisfaction (Y) by path c', the total effect of the independent variable (X) on users' satisfaction by path c and indirect effect of e-government (X) on users' satisfaction (Y) through e-service delivery (M) by (a*b) is verified. In Figure 1 and Figure 3 all paths are shown.

Figure 2
 Total effect of e-government to Users' satisfaction

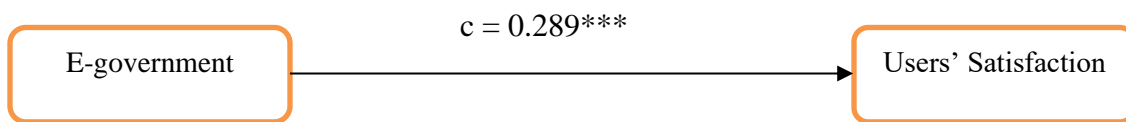


Figure 1
 Mediation Effect

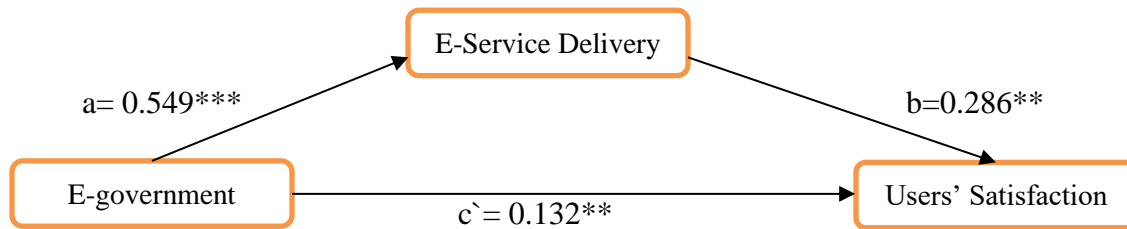


Table 4
 Mediation Analysis

Relationship	B	
e-government (X) to e-Service Delivery (M) Path a	0.549***	
e-Service Delivery (M) to Users' satisfaction (Y) Path b	0.286***	
Direct Effect e-government (X) to Users' satisfaction (Y) Path c'	0.132***	
Direct Effect e-government (X) to Users' satisfaction (Y) Path c	0.289**	
Indirect Effect (a*b)	0.157***	
	LL95% CI	UL95% CI
Bootstrap for Indirect Effect	0.102	0.232

N=310, *p<0.05; **p<0.01; ***p<0.001 LL for Lower Limit CI for Confidence Interval and UL for Upper Limit.



The above table shows that e-government towards users' satisfaction with $\beta = 0.289$ (path c) indicates a positive impact of e-government on users' satisfaction. This shows that with the improvement of e-government users' satisfaction will also improve. According to the above discussion, the 1st hypothesis is supported by these results.

H1: Competitive e-government will have more extensive users' satisfaction.

Also, the above table shows that e-government to e-service delivery with $\beta = 0.549$ indicates the positive and strong effect of e-government on e-service delivery. This shows that with the increase of e-government value, the value of e-service delivery will also increase. Thus, the 2nd hypothesis is supported by these results.

H2: The use of e-government leads to improved perceptions of accessibility of e-services.

Results show that e-service delivery (M) has a positive and significant effect on users' satisfaction (path b) with β value of 0.286^{***} $p < 0.001$. This impact illustrated that as there is a positive association between e-service delivery (M) and users' satisfaction (Y). Thus, our 3rd hypothesis is supported.

H3: A positive attitude toward e-service delivery leads to increased users' satisfaction.

The direct effect of e-government (X) on users' satisfaction (Y) is positively associated and strongly significant with β value 0.132^{***} $p < 0.001$ indicating that the direct effect of e-government on users' satisfaction is significant.

The indirect effect (Path a*path b) with β value 0.157, bootstrap lower limit 95% confidence interval 0.102, and bootstrap upper limit 95% confidence interval 0.232 are also positive and significant. The indirect effect is significant as bootstrap limits have the same signs and there is no zero between the same signs. Results indicate that our 4th hypothesis is approved or partially accepted as the direct effect and indirect effect are both significant, so there is partial mediation of e-service delivery (M) between the relationship of e-government (X) and users' satisfaction (Y), and it reduces the effect of e-government on users' satisfaction.

H4: E-service delivery mediates the association between e-government and users' satisfaction.

Moderation Analysis

Figure 3
 Moderation Effect

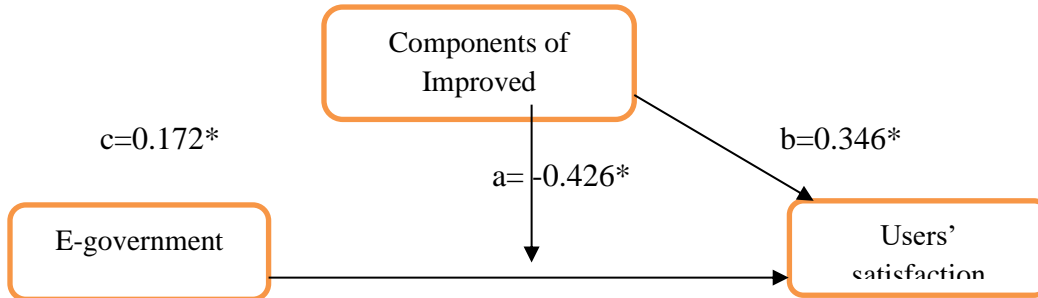


Table 5
 Moderation Analysis

Relationship	B
e-government (X) to Users' satisfaction (Y) Path a	-0.426*
Components of Improved Governance (M) to Users' satisfaction (Y) Path b	0.346*
Interaction term (e-government x CIG) to Users' satisfaction (Y) Path c	0.172*
Increase in R ² due to Interaction	0.100*

N=310, *p<0.05; **p<0.01; ***p<0.001 LL for Lower Limit CI for Confidence Interval and UL for Upper Limit.

Table 5 shows the results of the moderation analysis. It was determined that moderation is statistically significant. The data in the table illustrates that there is a statistically substantial relationship between components of improved governance and users' satisfaction (b =.346). Also, the relation between components of governance (CIG) and users' satisfaction is significant (beta =0.172). According to the findings, the 5th hypothesis is accepted, stating that improved governance acts as a moderator between e-government and users' satisfaction.

H5: Components of improved governance have a moderating role between e-government and users' satisfaction.

E-government services are initiated for citizens. Therefore, it is reasonably essential to consider experiences, and the challenges encountered by them while using these services and to measure the satisfaction perceptions. This effort will not merely develop government attentiveness of user demands and expectations, but for competitive advantage, it can also be a basic source (Zauner et



al., 2015). The curiosity of e-government services is mainly influenced by users' appraisal of offered services (Pérez-Morote et al., 2020).

Trust and Privacy: Another subject evolving in the citizens' data related to the absence of privacy laws and data security. This shortfall impacts trust adversely and thus acceptance of e-government services is also affected. Trust in the government services is important to produce high-order socio-political remunerations. Possibly, as the professed risk of using government services is decreased, trust in the e-government services boosts users to participate eagerly in accessing its services. Trust in technology and trust in government are both vague and are associated firmly. For the majority of the respondents, the main hurdle to accepting e-government services is the lack of trust in the government departments. Citizens have a fear that the information shared by them with the government departments is not safe. The majority of people are unwilling to share their information by electronic means, probably due to security and privacy concerns. Compounding this sort of trust issue is the occurrence of identity embezzlement and cyber-crime that has been testified in Pakistan (Malik & Islam, 2019). Likewise, hacking and cyber-crimes are important challenges (Shad, 2019). To prevent such sorts of actions, the government of Pakistan established an organization to alleviate cyber threats – the National Center for Cyber Crime (NR3C). On the other hand, to restore citizens' trust in e-Services is still required. A 3rd theme evolving in the citizens' data is system related. This method was seen as an appliance to not only enhance the service quality, but also encourage more liability by government departments. Possibly, rating and review systems are also essential to develop trust between government and citizens.

Citizens Involvement: An important theme evolving in the citizen data related to corruption in the delivery of services; around 30 percent of responses show that citizens are facing corrupt employees. Lack of response by government departments to user feedback is an additional issue raised by an extensive number of respondents. For instance, the Pakistan Citizen Portal (PCP) app launched by the government was considered as a source of participatory governance and proposed to allow users' accessibility to all public sector departments under one umbrella. The application can also be used to file grievances or complaints in the relevant government departments. But the persistent response was that grievances entered through the application are shut by the system. A number of respondents were informed that a user's complaint is often



solely disregarded. In order to make implementation more transparent and accountable, the government should upgrade the system.

Corruption: There are certain social challenges that may arise during and after the execution of e-government services. The governments, particularly executors, should pay special attention to these challenges. The study, after vigilant discussion, identified that in the execution of e-government, corruption in Pakistan is a potential social challenge. Citizens may lose trust in e-governance institutions because of this issue, calling it unfair and corrupt. Lack of citizens' awareness about e-services can be another issue. Communication between the citizens and implementers can be the best way to improve the awareness regarding e-governance.

Nonetheless, governments should have in-depth understanding of such issues to grab them efficiently.

Transparency: More transparency in e-government service delivery is a basic value emphasized in the current research study. It can be supported through open access and the provision of fair records and government information. Participants largely valued the ease of approaching government authorities. Moreover, some respondents appreciated the right to access information via e-government services. Respondents also stated: "E-government services have endorsed users to get full advantage of the law of the right to information". Transparency in the e-government services has impacted citizens' lives massively. Implementation of current transparent government services is a challenging act, but this objective has become more feasible through open access and the use of technology and this is only possible due to e-government (Halachmi & Greiling, 2013). For citizens, an additional step towards more transparency is to have more prominence in their demands for services. In this regard, e-government will not simply retain track of service demands but also spread improvement to citizens. Participants mentioned: "When a citizen files a complaint on Pakistan Citizen Portal, he/she is given instant confirmation of reception of the grievance and then, on each step in the process of complaint resolution, status updates are delivered to the citizen regularly, till the time an ending is finalized." On the contrary, some respondents offered an opinion on service reliability, perceiving that from time to time the status of complaints is updated as fixed in the system; however, in actuality, it is not fixed by the relevant department. This sort of issues may be



customer satisfaction instead of transparency, as sometimes citizens are not satisfied with the ending of their lodged complaints.

Operational Efficiency: Efficiencies of cost and time are the most important operational effects generated by e-government services. Conversely, e-government empowers users to access e-government services; the main concern is not accessibility from the perspective of management however cost and time in terms of resources. E-government is also valued by government officials, but in Pakistan they do not take serious operational sources to enhance effectiveness and delivery of online services to the users. The basic consideration of government officials appears time and cost savings by executing these services. It happens commonly that citizens are shuttled from one office to another on their visit to public offices, and frequently get incompatible facts from various people. In this regard, it has become more convenient for users to acquire information regarding services they need at their fingertips due to e-government.

Conclusion and Recommendations

It is concluded that citizens often view government as unproductive and lacking in skills to deliver services as proficiently as private-sector businesses. This view can lead to a failure in political involvement and a lack of assurance in the capability of government to solve problems efficiently. Contemporary public administrators, in response, have been tasked with reinventing government to enhance effectiveness and efficiency of e-governance. From the results and findings, it is observed that information technology can play an important role in creating a more proficient e-government that can provide enhanced services and, in turn, develop citizens' assurance in public-sector management. Though great interest in the improvement of the e-government is shown by the stakeholders, however, the prospects of users have not yet been met. The lack of adequate knowledge, where the service users are not aware of the manifestation of e-government services may be one of the imperative reasons. Thus, the provision of e-government services is not availed by its users. From the results, it is also found that satisfaction of the citizens with e-government can be improved by increasing efficiency of e-services after reducing corruption and enhancing trust level of the users.

In Pakistan, there are plenty of expert ICT professionals, but there is the need to improve government organizations' processes with the help of technological skills. Furthermore, at strategic level, there is also a gap of change management skills to execute e-government. In this



regard, government decisions should focus on human resource development and capacity building in the field of Information and Communication Technologies by regular training of their personnel to meet the required demands to improve and uphold quality web portals. The policies of the government should be helpful towards providing excellent technological infrastructure as a pillar to run effective e-government portals and to provide easy access to the citizens of the country.

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