

**ANTECEDENTS AND OUTCOME OF UAE  
CITIZEN SATISFACTION OF E-  
GOVERNMENT SERVICES**

**ALBLOOSHI TAREQ ABBAS ALI ALMANDOOS**

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GOVERNMENT SERVICES**

by

**ALBLOOSHI TAREQ ABBAS ALI  
ALMANDOOS**

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# **ANTESEDEN DAN HASIL KEPUASAN WARGA UAE TERHADAP PERKHIDMATAN E-KERAJAAN**

## **ABSTRAK**

Dalam bidang perkhidmatan awam, istilah seperti kepuasan dan ketidakpuasan rakyat telah menarik banyak perhatian dalam kajian baru dan lama. Tujuan kajian ini adalah untuk meneliti trend dalam kepuasan rakyat terhadap perkhidmatan e-kerajaan seperti yang diperhatikan melalui kegunaan perkhidmatan, penggunaan perkhidmatan yang mudah, kesedaran maklumat, dan kualiti perkhidmatan. Lebih-lebih lagi, kajian ini juga menyelidik kesan kepuasan rakyat terhadap perkhidmatan e-kerajaan serta niat kesinambungan. Tambahan pula, impak moderator kepercayaan atas talian terhadap hubungan pemboleh ubah eksogen dan endogen juga telah diperhatikan. Sampel yang mengandungi sebanyak 364 borang soal selidik telah dilihat sebagai cukup sah untuk tujuan statistik deskriptif, matriks korelasi, serta analisis demografik. Selain itu, kajian ini telah melaksanakan pendekatan dua langkah semasa mempertimbangkan penilaian model pengukuran dan penilaian model struktural. Hasil kajian melalui model pengukuran telah mengesahkan bahawa kesahan dan kebolehpercayaan model serta indeks sesuai yang lain tidak mempunyai apa-apa masalah. Selepas meneliti model pengukuran tersebut, model struktural telah digunakan dengan pendekatan Smart PLS-SEM untuk kedua-dua kesan langsung dan moderator. Hasil kajian kemudiannya mengesahkan bahawa penggunaan e-perkhidmatan yang mudah, kesedaran maklumat, kualiti e-perkhidmatan, dan kepercayaan atas talian mempunyai impak yang signifikan dan positif terhadap kepuasan rakyat dengan perkhidmatan e-kerajaan. Lebih-lebih lagi, hasil kajian mengesahkan bahawa terdapat kesan moderator yang signifikan kepercayaan atas talian terhadap hubungan antara kegunaan e-perkhidmatan dengan

kepuasan rakyat, antara penggunaan e-perkhidmatan yang mudah dengan kepuasan rakyat, antara kesedaran maklumat dengan kepuasan rakyat, dan antara kualiti e-perkhidmatan dengan kepuasan rakyat. Hasil kajian tersebut mampu menjadi sokongan yang baik kepada pelbagai pihak berkepentingan, khususnya kepada mereka yang bertanggungjawab dalam pengurusan dan penawaran perkhidmatan e-kerajaan untuk meningkatkan kepuasan rakyat. Namun begitu, harus diingatkan bahawa terdapat pembatasan seperti perbandingan antara jabatan yang tidak wujud, pertimbangan yang terhad kepada negara UAE, dan pengumpulan data melalui kaedah soal selidik sahaja. Untuk kajian seterusnya, adalah disarankan bahawa pembatasan tersebut ditangani dengan baik.

# **ANTECEDENTS AND OUTCOME OF UAE CITIZEN SATISFACTION OF E-GOVERNMENT SERVICES**

## **ABSTRACT**

In the field of public services, citizen satisfaction has gotten significant attention both in the recent and past literature. However, one of the critical issues, as observed in the literature till date, is that it is widely missing for exploring the essential determinants of citizen satisfaction towards e-government services, specifically from the context of public firms in the UAE. Although a dramatic change has been observed over the recent years in e-government services, no investigation has been found to which extent the citizens are satisfied and which factors are playing their significant role in such satisfaction. Therefore, this study investigates the trends in citizen satisfaction with e-government services as observed through service usefulness, service ease of use, information awareness, and service quality. Furthermore, this study investigates the impact of citizen satisfaction towards e-government services on E-government service continuance intention. The moderating effect of online trust on the relationship between exogenous and endogenous variables is also observed. Finally, this research provides another meaningful contribution while covering the literature gap for the mediating effect of e-government satisfaction between key exogenous variables and e-service continuance intention. A sample of 364 questionnaires was collected from citizens of UAE and observed as valid enough for descriptive statistics, correlational matrix and demographic analysis. Additionally, this research has applied a two-step approach while considering the measurement model assessment and structural model assessment. The study findings through the measurement model confirm that there is no problem with the model's validity and reliability along with other fit indices. After

examining the measurement model, the structural model is applied through the Smart PLS-SEM approach for both direct and moderating effects. The study results confirm a significant and positive impact of e-service ease of use, information awareness, e-service quality, and online trust on citizen satisfaction with e-government services. Furthermore, the study findings confirm a significant moderating effect of online trust on the relationship between e-service usefulness-citizen satisfaction, e-service ease of use-citizen satisfaction, information awareness-citizen satisfaction, and e-service quality-citizen satisfaction. Conversely, the results confirm a significant mediating effect of e-government satisfaction on the relationships between service ease of use, service usefulness, information awareness, information quality, and e-service continuance intention. The study findings would greatly support various stakeholders, specifically those responsible for managing and providing e-government services for better citizen satisfaction. Besides, some limitations include missing cross-departmental comparison, consideration of only the UAE region, and data collection through survey questionnaire only.

## CHAPTER 1

### INTRODUCTION

This chapter provides some introductory and background discussion about the study topics and key variables. Furthermore, it deals with the problem statement, research questions, and objectives. The study's significance, scope and contribution are also addressed in this chapter. Lastly, key terms are defined by the end of this chapter.

#### **1.1 Background of the Topic**

In the field of public services, the title of citizen satisfaction and dissatisfaction has gotten significant attention both in the recent and past literature. In this regard, various administrative reforms and related initiatives have been taken up by the government in different regions to create a linkage between the public services provided by the government and satisfaction from the community members. This would indicate a promising trend toward restoring the public trust in the government and various departments. However, the historical review of public services makes it clear that administrative reform during 1980-1990 has introduced the idea of treating citizens as clients and making public services more client-oriented. This has provided a dramatic change in the field of public services while trying to deliver the clients a pleasurable experience while turning the traditional service mechanism from a bureaucratic state to a service delivery machine, as expressed by Flynn (2012) and Greener (2012) and Schedler and Proeller (2000).

Moreover, in recent years, remarkable development has been observed in the field of information and communication technologies, internet services, and smart



technologies, respectively (Wu et al., 2018). Such a dramatic trend has significantly impacted private and public organizations striving to provide valuable services to their clients, specifically through online portals and other facilities. More specifically, the performance of online services can be evaluated with the help of objective and subjective dynamics (Mbaidin, 2021). The objectives are mainly linked with the economy, political environment, and culture. On the other side, the subjective factors are more connected with the governmental efforts to build e-government services (Mbaidin, 2021). In this way, various governmental departmental departments have evaluated the online service portals and experienced some outstanding results.

In addition, the title of customer orientation is reflected in the rise of various tools to assist the public services and provide the sense to the citizens that they are treated better. Such tools and techniques include public surveys to capture what the citizens want from the provided services by the governmental organization. Furthermore, complaint mechanisms and ombudsman institutions in different public sector organizations are some of the core features observed since the 1990s. Meanwhile, the introduction of customer charters can be viewed as a symbolic event signaling that public sector organizations are increasingly taking care of the public services, hence creating a significant positive linkage between the government and citizens (Thomassen, Ahaus, Van de Walle, & Nabitiz, 2014). More specifically, some examples of the citizen's charter include the citizen charter in United Kingdom (UK) during 1991 (Duggett, 1998; Fyfe, 1993; Page, 1999), the French Charte des Services Public in 1992 (Van de Walle, 2018), the Charter of the User of Public Services in Belgium (Van de Walle, 2018), introduced in 1992/1993 and various both in developed and developing economies. However, it is observed that these charters have been transformed into some titles of operational services-specific charters. During the 1990s, the emergence of e-

government has risen along with some significant attempts to make public services more assessable. A shift has also been observed from the institution centric, to one that was accepted as citizen-centered and demand driven as well (Van de Walle, 2018).

E-government is a system which covers some inter-association between the government employees working in a different departments with the society at large. The relationship between e-government and e-governance is critical for the system design and effective and efficient delivery of e-services to the community members This e-government and related technologies serve in a distinguish way and endwith i Such initiatives encourage the citempower themselves while accessing the exact information and some sensible interactand

## **1.2 E-Government Services**

In present economy, adoption of e-government is one of important concepts to deliver facts about government to the general public by using online tools, websites, social media, etc. In its simplest format, e-government services can be defined as the application of internet and related facilities to exchange information, providing different services while transacting with the citizens, and various business units (Kamal & Themistocleous, 2009). Moreover, e-government increases the efficiency (less use of resources) and effectiveness of the government department because people can access the government virtually through e-government without any hurdle. Government services are digitised Sometimes both digital government and e-government is interchangeably used. Sometimes the term e-services are also used to denote the digitization of the services and is defined as the “interactive software-based information systems received via the Internet” (Featherman & Pavlou, 2003; Abdelhamid et al., 2019). Although different definitions and concepts represent the e-government, the present study specifically emphasizes the term e-government. It has been widely

defined by academicians and scholars globally. It is worthy to note that e-government is differently defined by the organizations, specialists, and researchers, but the core concept remains the same: the utilization of the information and communication technologies to provide services so that individuals and businesses can be served optimally. E-government can be classified in distinct ways based on its operations, the role of the citizens and development orientation: Virtual socialization process, virtual value chains and IT artefacts (Tan & Benbasat, 2009; Malodia et al., 2021).

International organizations and bodies have defined e-government differently. For instance, The United Nations can be regarded as one of the influential organizations that extensively emphasize the role of e-government and conduct various studies on e-government. United Nations defines it as the application of information and communication technologies by government organizations (Armenia & Irina, 2022). These technologies may include WAN (Wide Area Network), internet and computing devices (Raadschelders, 2011). On the other hand, another organization named OECD (Organization for Economic Cooperation and Development) also paid much attention to e-government. As per the definition of OCED, it can be regarded as the general utilization of information and communication technologies and the internet, specifically by government organizations, to improve their services (Kumar & Ayedee, 2021). World Bank has also defined e-government as the application of information technologies by government organizations so that they may improve their services and have improved relations with the different stakeholders such as citizens, organizations, and other arms of the government (World Bank, 2021). All of the definitions related to e-government by different organizations have defined it from the perspective of information and communication technologies.

In addition, through a significant advancement of information and communication technologies (ICTs), various new services have been offered in public and private organizations to save time and cost. This is because efficiently utilising available internet and related devices helps with better operational services (Almuraqab et al., 2021). Moreover, better and successful adoption of such services from the community members would also help their long-term growth. In this regard, the engagement of citizens is quite essential, where different authors have provided their valuable arguments while highlighting that efficient engagement of the public and community members in governmental services is the way to achieve success (Almuraqab, 2017).

E-government, e-governance and governance are not similar instead, they are different terms with different meanings associated with them, so they should not be mixed up. Basu (2004) argued that governance is the utilization of political, economic and administrative authority to improve managerial issues at all levels within a country. At the same time, e-governance entails the idea that governance is electronically supported for its smooth functioning (Butt, 2022). It is necessary to differentiate between e-government and e-governance.

Additionally, e-governance can be stated as the system involved in societal management (Almalki, 2014; Grönlund & Horan, 2005; Hasan & Rizvi, 2022). The use of e-government in the country helps overcome many problems by, for example, archiving essential documents. This process traditionally takes up plenty of storage space and expensive maintenance (Barnes-Holmes, Finn, McEnteggart, & Barnes-Holmes, 2018). Entry into e-government can also help public interactions and improve public comfort with administrative transactions linked to the government. This increase

in public service quality would make the government more open and accountable. While e-government services are successful, they include lower operating costs, better archiving capacity, improved service quality and better citizens' confidence as operating costs would have decreased. Only through full adoption of e-government citizens can these benefits be achieved. Yasir et al. (2020) reported that when the technologies are used to provide services to the general public, they tend to enhance their experience of services with the people, citizens and businesses.

EG uses information technology to improve the competencies and usefulness of the administration process and make an online government that is secure, accessible and open. By using internet services in government departments, people can communicate more easily. It is helpful in external communication with the general public and internal communication with other departments of government that may be in another place (Janowski, 2015). The internet services in government departments largely depend upon the number of citizens that uses e-government services. Users of these services are the crucial aspect which defines its success (Al-Hawary & Al-Menhaly, 2017). With the increasing importance of e-government, many studies have been done on e-government, and still, there is a necessity to do more studies on e-government and its adoption. In this regard, Gilbert, Balestrini, and Littleboy (2004) state that willingness to adopt e-government is one of the most critical components of e-government. According to Gilbert et al. (2004), the preparedness to practice e-government depends upon the perception of hurdles such as confidentiality, comfort of use, consistency, and safety.

Moreover, they suggested that age also significantly influenced the embracement of e-government. Young people can understand internet use easily, so it's more productive for them. Further, another study was done on the adoption of e-

government (Epstein, 2022). This study demonstrated that “trust” is only of the significant elements for adopting e-government.

Earlier scholars have discussed the intent of e-government usage (Gilbert et al., 2004; Zahid et al., 2022). In addition, Kumar et al. (2007) described that these services' acceptance is not enough to generalize the adoption of e-government by intention to use e-government because it did not cover all the aspects of adoption of e-government. Moreover, they also demonstrated that one time of e-government is not included in the final adoption of e-government services. Most research did not discuss how frequently such services are used (Kumar et al., 2007). E-government is benefiting the governments. This previous study has stated that it improves the administration in various ways, such as increasing the professionalism among government officials as everything is linked up. Hence, they must do it with utmost care and attention so there may not be an error. In addition to this, it also boosts the ethical climate among officials as there are several checks which do lessen the chance of doing any unethical action.

Further, e-government services also improve the operational efficiency of government officials and departments (Nurdin, 2021). When all the work is being done, the government transparently, smoothly, and practically influences the public trust in the government, which is also the factor for its success. When people are getting what they desire, their rights and the government is completing its responsibilities; people tend to be happy and consider it their welfare. Going on further, when the people get something extra, and the government is also doing extra for people and also easing their way of doing things, they tend to be more satisfied. Ultimately, well-being improves (Twizeyimana & Andersson, 2019). Moreover, in their study, Ozturan and Surucu

(2019) contended that the adoption of e-government services depends on the level of development within a country and removes the general public's time, place and cost restrictions. It is one of the vital services that enable the exchange of information between government to citizens, citizens to government, government to employees and vice versa (Javvaji & Reddy, 2019; Pedawi & Alzubi, 2022). The adoption of these services may lead to better delivery of services. The adoption of these services and internet availability and access is mainly discussed in previous studies. However, such adoption is primarily affected by the ease of use, service usefulness, information awareness and service quality of e-government influence citizens' satisfaction with e-government and its intention to use (Li & Xue, 2021). These factors discussed below in detail affect the adoption of e-government.

### **1.3 E-government Services and Strategies in UAE**

The e-government facility offered various services to the general public and business groups. These services include esurvey, epay, mpay, SMSDubai, Ask Dubai, eHost, eComplain, and eSuggestion (AlSayegh et al., 2019). UAE has determined different e-government strategies till 2025, which cover eight dimensions. These strategies have been developed during the post-pandemic era, focusing on leaving no one behind, resilient, fit for the digital age, user-driven, digital by design, data-driven, open by default, and proactiveness, respectively. Additionally, the “National Digital Transformation Committee”, is developed, primarily responsible for addressing the cross-cutting role of technologies in providing UAE's government activities nationwide. The digital government roadmap comprises six dimensions based on 64 national digital enablers. Figure 1.1 provides a better outlook for these six pillars.

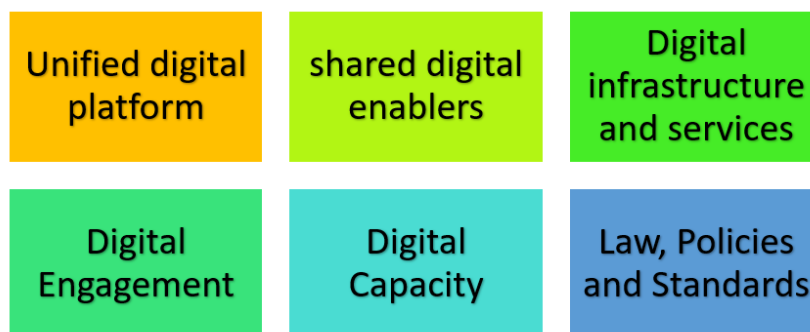


Figure 1.1 Six Pillars of Digital Government Roadmap

For the initiative to be realized, the government commissioned an executive committee to conduct regular strategic audits for the various activities related to the Dubai Smart Government. The core task was to study and examine the various governments like Singapore, Malaysia, Britain and the United States of America USA. After getting some significant body of knowledge from the stated economies, an online strategy known as e-strategy was developed for the government departments, which covers the related infrastructure, e-services, and many other tools to deliver the services that can be started electronically. Additionally, it is observed that some of the public sector organizations are very well equipped with electronic infrastructure, while others also need some relevant technologies. Furthermore, after networking with the public departments, an e-government portal was finally launched in 2001, as expressed by Warf (2013).

Various factors are playing their leading role in the success of the e-government system in Dubai, mainly attributed to the information and communication technology or ICT infrastructure, information structure of e-government and its promotion in the region (A. Kumar & Dash, 2015). As per Figure 1.2 below, the government of Dubai



has adopted a recommendation as provided by United Nations regarding the four stages e-government model.

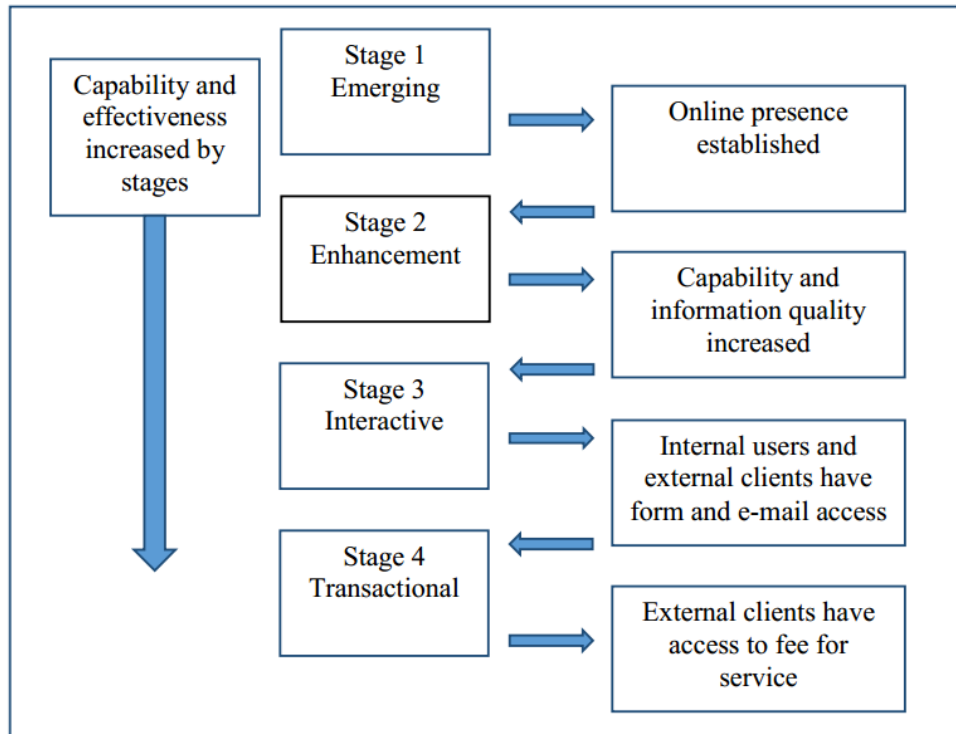


Figure 0.2 e-government Model of Dubai

Source: Jain and Akakandelwa (2014)

In addition, the title of citizen satisfaction, specifically in the region of UAE, has provided some significant facts. For example, as per the United Nations (UN) World Happiness Report 2020, UAE has maintained its first place among the Arab economies for six consecutive years. Meanwhile, UAE has maintained its position in the global perspective while surpassing various developed economies. This has provided significant evidence for claiming a higher level of citizen satisfaction based on the various services and facilities provided by the UAE government.

#### **1.4 Problem Statement**

It is observed that over the last couple of decades, the title of e-government and related services has gotten much attention and progress in both developed and developing economies. Governments and similar agencies are putting their best efforts in different regions by providing various online services to their citizens, information, interaction opportunities, and many others. It is believed that citizen satisfaction is a critical factor in the success of e-government services and their sustainability; therefore (2021). Therefore, promoting such services is among the top priorities for various countries. However, a detailed investigation of the existing body of literature has revealed that e-government satisfaction from the citizens is mainly individual-level analysis based on the self-reporting, common-source and perceptual data, which may lead to various biases along with several other limitations. For example, a review of 114 studies regarding citizen satisfaction with e-government reveals that the existing body of literature is limited in sample size, single country analysis and standard method biases (Irani et al., 2012). Another study was conducted by Alawneh, Al-Refai, and Batiha (2013) explained the various determinants of e-government satisfaction and claimed that most are perceptions at the individual level. In contrast, very few studies have applied the multilevel models to predict the citizen perception about the e-government and related services.

In addition, the title citizen satisfaction from e-government services has provided that various determinants are also observed in the existing literature. For example, Anwer, Esichaikul, Rehman, and Anjum (2016b) indicate that there is two perspectives of the variables entitled as determinants of citizen satisfaction towards e-government services. These are known as the supply side and demand side, where the former consist of service availability, website design, and service quality and the later

comprises of digital divide and trust and security. More specifically, factor like service usefulness is also a determinant of citizen satisfaction with e-government services.

Another factor observed as among the key determinants of citizen satisfaction towards e-government services is service ease of use. This would specify that ease of use is the extent to which a user believes that a specific system can be utilized without much more hassles or effort as expressed by Davis (1989). Furthermore, as per the specification of Dahi and Ezziane (2015), the, digital technologies are related services will be more accepted if they would be easy to use. Furthermore, some others also specify that the general public usually likes to use the digital technologies specifically in the m-government services because it is straightforward, easy to access, lesser hazels involve in it, and more practical (Abu-Shanab, 2015; Al Thunibat, Zin, & Sahari, 2011). Although the significance of ease of use specifically in determining the e-government and citizen satisfaction is reasonably addressed in the literature, a significant gap is yet to cover specifically in the context of UAE, where there is a range of digital and e-government like esurvey, epay, mpay, SMSDubai, Ask Dubai, eHost, eComplain, and eSuggestion are provided (AlSayegh et al., 2019). This issue has raised an open research question regarding the role of service ease of use and its impact on the citizen satisfaction towards the e-government services provided by the UAE government.

In addition, the role of information awareness is entirely meaningful in contemporary times, specifically in utilizing e-government services in any region. The UAE's government intends to provide its citizens with more accurate, assessable, and high quality information along with the usage of smart devices and high-speed internet services (Jasimuddin, Mishra, & A. Saif Almuraqab, 2017b). However, to what extent the information awareness is playing its role in determining citizen satisfaction with e-government services is yet to explore as there is no empirical evidence to be provided

by the researchers to date. This has specified a significant research gap as well as a contemporary issue in the present literature that needs to be addressed seriously.

Considering the region of UAE, it is found that although the stated government is providing online service facilities in various public sector organizations. Through such services, local community at large are getting valuable services conveniently and efficiently. However, the existing body of literature has widely neglected this era of e-government services as provided by UAE, for which only a few studies have addressed this title (Almuraqab et al., 2021; Elbadawi, 2011; Rodrigues et al., 2016). These studies have been found with an entirely different context in terms of explanatory variables while ignoring the role of online trust, service quality, information awareness, and others.

In any physical or mobile service, the role of service quality is significant. Many scholars highlight the significance of service quality specifically in the mobile or e-government services. For example, Cao, Ahmad, Kaiwartya, Puturs, and Khalid (2018) mention that online service quality brings the factors of networking and flexibility. However, intelligent strategies are much needed for satisfying society, which needs further promotion (Anshari & Lim, 2017). Additionally, it is mentioned that in m-government services, the quality of services plays a vital role in hunting more satisfaction from the customers (Alsaadi, Ahmad, & Hussain, 2018). Although the quality of services is quite important in determining citizen satisfaction with e-government services, there is a significant gap in the literature in the regional context, where little research work is found for exploring the role of service quality specifically for citizen satisfaction in UAE.

Lastly, the role of online trust from the citizens in any region towards mobile government or e-government services is crucial in determining the relationship between critical factors like ease of use, service quality, information awareness, service usefulness and citizen satisfaction with e-government services.

Based on the above arguments, it is stated that the title of citizen satisfaction is vital while examining the success or failure of public entities, specifically in the region of UAE. Specifically, citizen satisfaction is of primary concern in the present study, for which various issues based on the existing body of literature have been found. For example, one critical issues, as foind the current literature, is tht citizen satisfaction has reasonably been investigated in other eowever, the central issue as linked with the title of satisfaction of the citizen implies that empirical evidence regarding the level of citizen satisfaction is mainly absent in the literature to date. Moreover, the review of the UAE economy has revealed that almost all the individuals residing in this region are directly and indirectly linked with the public sector organizations, for which checking their level of satisfaction with e-government services is quite evident.

In the final term, our study has examined whether the e-government satisfaction may also mediate the relationship between selected independent variables and e-government service continuance intention. Based on the above arguments, the researcher has defined several research questions and objectives.

## **1.5 Research Questions**

Based on the study background and problem statement, the following are the research questions under observation.

RQ1: what is the relationship between service usefulness and citizen satisfaction with e-government services?

RQ2: what is the relationship between service ease of use and citizen satisfaction with e-government services?

RQ3: what is the relationship between information awareness and citizen satisfaction with e-government services?

RQ4: what is the relationship between service quality and citizen satisfaction with e-government services?

RQ5: what is the moderating effect of online trust on the relationship between service usefulness and citizen satisfaction with e-government services?

RQ6: what is the moderating effect of online trust on the relationship between service ease of use and citizen satisfaction with e-government services?

RQ7: what is the moderating effect of online trust on the relationship between information awareness and citizen satisfaction with e-government services?

RQ8: what is the moderating effect of online trust on the relationship between service quality and citizen satisfaction with e-government services?

RQ9: what is the mediating role of citizen satisfaction with e-government service on the relationship between service usefulness, service ease of use, information awareness, service quality, and e-government service continuance intention?

## **1.6 Research Objectives**

RO1: To examine the relationship between service usefulness and citizen satisfaction with e-government services.

RO2: To examine the relationship between service ease of use and citizen satisfaction with e-government services.

RO3: To examine the relationship between information awareness and citizen satisfaction with e-government services.

RO4: To examine the relationship between service quality and citizen satisfaction with e-government services.

RO5: To examine the moderating effect of trust on the relationship between service usefulness and citizen satisfaction with e-government services.

RO6: To examine the moderating effect of trust on the relationship between service ease of use and citizen satisfaction with e-government services.

RO7: To examine the moderating effect of trust on the relationship between information awareness and citizen satisfaction with e-government services.

RO8: To investigate the moderating effect of trust on the relationship between service quality and citizen satisfaction with e-government services.

RQ9: To examine the mediating role of citizen satisfaction with e-government service on the relationship between service usefulness, service ease of use, information awareness, service quality, and e-government service continuance intention.

## **1.7 Significance/Contribution of the Study**

This study has provided various significances and contributions based on theoretical, methodological, and practical perspectives. More specifically, the points are given below:

Firstly, the theoretical significance covers that the literature has not provided reasonable evidence for exploring the relationship between critical exogenous factors and citizen

satisfaction with e-government services. Meanwhile, the relationship is entirely missing while exploring the moderating role. Therefore, the present study has provided a research framework while considering the factors like service usefulness, ease of use, information awareness, and service quality as a primary exogenous variable. At the same time, citizen satisfaction toward e-government services has been treated as an endogenous variable first. After that, its mediating effect on the relationship between exogenous variables and e-government service continuance intention has been investigated. Furthermore, the role of online trust is also observed as a moderator in the research framework under the present study. This has provided an excellent theoretical significance as associated with the present study.

Secondly, the current literature has not explored the relationship between factors and citizen satisfaction toward e-government based on some theoretical support. This literature gap is also reasonably covered by the present study while exploring the relationship between the study variables based on both underpinning and supporting theories. Therefore, this would be considered another theoretical significance as the present study provides.

Thirdly, as per the theoretical significance, this research has provided an overall framework while covering both the direct and indirect relationships between independent, dependent, and moderating variables through which academicians, students, researchers, and policymakers can reasonably get benefit specifically in developing their understanding for the stated variables.

Fourthly, this study has provided another theoretical contribution in that it has further taken the role of citizen satisfaction with e-government service on the relationship between independent variables and e-government service continuance intention. In this



regard, it has provided a new theoretical addition in the literature to date, which is entirely observed as a missing part.

Fifthly, the methodological significance of the current study indicates that earlier studies have not reasonably applied the two-step approach while examining the key factors and their impact on citizen satisfaction with e-government. The reason is that most research studies have considered descriptive and regression analysis while exploring the critical determinants of citizen satisfaction towards e-government, specifically in the region of UAE. For this reason, the present study has applied two step approaches, which are further based on the measurement and structural models, respectively. This is the central methodological significance as linked with the present study.

Sixthly, based on the practical significance, current research has provided some interesting empirical facts regarding the relationship between the study variables, which the government officials may utilize, public representatives and similar other officials responsible for achieving a higher level of citizen satisfaction towards e-government services. Furthermore, through current study findings, public servants working in different governmental organizations can reasonably observe which factors are more crucial to citizen satisfaction so that they can improve their services. Therefore, the above points have highlighted the practical significance of the present study.

Finally, it is also important to note that the contribution of this study can also be viewed from the context that it has explored the trends in e-government satisfaction and e-service continuance intention in the region of UAE. In this regard, e-government satisfaction determines the level of happiness and pleasure felt by the community members in UAE while using various online services from public organizations. On the

other side, the term e-service continuance intention defends the way people are reusing the provided online services and their self-expression for going with those provided services.

## **1.8 Scope of the Study**

In terms of study scope, this research has provided some key highlights. The study scope in terms of research design specifies that this study is based on the quantitative and deductive research approach, which demonstrates the data collected through primary sources like questionnaires and where some existing theories are tested. The regional scope of the study clears that this study is entirely conducted in UAE to explore the critical determinants of citizen satisfaction towards e-government and the moderating role of online trust. In this regard, the role of online trust is to be considered a good indicator in determining the relationship between service quality dynamics, information awareness and citizen satisfaction with e-government services. Moreover, the title of online trust helps analyse the level of expectations of the citizens regarding the online services, security and reliability factors. On the other side, the title of citizen satisfaction with e-government services would reflect the study scope where the online services of the government of UAE have been investigated. As stated earlier under study background, a range of online services have been provided by the government of UAE to facilitate the community members. Apart from this, current research has also explored the trends in e-service continuance intention as determined by the set of explanatory variables along with the mediating effect of e-government satisfaction. In this regard, the title of e-government service continuance intention reflects whether the UAE citizens intend to use the online services in different public departments on a regular basis based on their level of satisfaction.

The scope of the current study in terms of exogenous variables indicates that service usefulness, ease of use, information awareness, and service quality are under observation. The endogenous variable under the present study is citizen satisfaction with e-government services in the first step. Later on, this research investigated whether citizen satisfaction with e-government service helps mediate the relationship between independent variables and e-government service continuance intention in the region of UAE. Furthermore, the study scope also clears that this research has applied a two-step approach for the data analysis while ignoring all other methods.

Moreover, the critical respondents under the present study were the citizen who are linked with various public entities serving in the UAE region through e-government services. In this regard, the population of this research consists of all the community members as they are directly or indirectly receiving the e-government services. Additionally, the sample for this study is also selected from those community members linked with governmental departments through online services. Finally, the expected time for completing this research is one year.

## **1.9 Key Terms**

### **Service Usefulness**

Generally, usefulness can be regarded as the perceived usability of a product or service. It can be defined as the degree to which an individual believes that a specific technology utilization will increase his/her job performance (Davis, 1989).

### **Service Ease of Use**

Ease of use is a concept which that reflects how easily users can get the benefit or utilize a product or service. Meanwhile, it also helps in reflecting how easily a service is helpful for the customers to address their required needs (Juliana et al., 2021).

## **Information Awareness**

Information awareness provides a basic understanding to any consumer or customer regarding the service provider's available services (Sedej & Mumel, 2015).

## **Service Quality**

service quality helps analyse how services can be delivered in a manner that can effectively satisfy the recipient (Sanchis et al., 2014).

## **Online Trust**

The term online trust reflects that an online user has significant confidence over a mediated experience generated through the computer (Cyr, 2008).

## **Citizen Satisfaction with E-government Service**

The title of citizen satisfaction helps explore how much community members and general public are satisfied from the services provided through a developed system by either public or private sector organizations.

## **E-service Continuance Intention**

The e-service continuance intention reflects the attitude of the customers or citizens while reusing a specific online service

### **1.10 Organization of the Thesis**

This thesis comprises five chapters. Chapter one covers some introduction and study background along with trends in e-government and citizen satisfaction for the region of UAE. It also provides some helpful material about the problem statement, research questions and objectives. Besides, the scope and significance of the study are also covered in chapter one.

Chapter two covers the review of the literature for both the exogenous and endogenous variables. Furthermore, it provides a theoretical and empirical discussion while exploring the relationship between the study variables. The research framework, study hypotheses, and research gap are also covered in chapter 2.

Chapter 3 specifies the research methodology as associated with the current study. It provides the material for the research philosophies, process, and approach. It also covers the title of research design, study population, sampling and sample design, data collection procedure, and instrument measurement. Furthermore, data analysis techniques and pretesting are also covered in this chapter.

Chapter 4 will cover the study findings through descriptive and inferential statistics. More specifically, descriptive statistics covers the trends in the data. In contrast, for inferential statistics, a two-step approach like measurement and structural model assessment is applied to explore the direct and indirect association between the variables of interest.

Chapter 5 discusses the study results based on contemporary and past literature. It also provides some good material about the study implications in terms of the theoretical and practical points of view. Lastly, the chapter has covered the limitations and future directions as well.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Introduction

The present chapter provides detailed literature on independent, dependent, and moderating variables. It also provides detailed literature on the relationship between independent, dependent, and moderating variables. It will also discuss the theoretical framework and present the study's theoretical model.

#### 2.2 Service Usefulness

Generally, usefulness can be regarded as the perceived usability of a product or service. It can be defined as the degree to which an individual believes that a specific technology utilization will increase his/her job performance (Davis, 1989). The usefulness context expresses the view that how much a service is valuable for the customer based on efficient and effective ways to resolve the problem or an issue. In the the context of government,, it can be regarded as the degree to which the citizens of a country or state consider that interacting and using the e-services provided by the government significantly smoothen and improves their interaction with government (Al-Kaseasbeh, Harada, & Saraih, 2019). It is the individual perception of the usefulness of any innovation which helpful to enhance the performance, quality of the performance, and knowledge challenges. Therefore perceived usefulness or ease of use improves the use of internet technology. For example, suppose citizens of the country perceive that usefulness of e-government is easy and users friendly. In that case, they try to save time by paying taxes and bills to the government by using e-government applications. The perceived usefulness of internet technologies helps enhance employees' performance. It enhances the trust in e-government and positively enhances

the intention to adopt e-government services (AlAwadhi, 2019; Abdulkareem et al., 2022).

Perceived usefulness (PU) is the extent to which the user feels like that particular system is used, enhances the performance or does not (Song et al., 2021). According to Davis (1989), in a project-based organization, users would be satisfied if technology helps to enhance performance, and a positive attitude would be developed towards using technology. Usefulness is divided into two classifications which are objective performance measure and subjective performance measure. Objective performance means does the user have the capability to interact with the system? How much a user has the skills to interact with or use a particular system? Whereas subjective performance measure includes the preference given by the user to use a system, means the user like a system or not. PU is a construct that everyone in the organization requires. At the same time, the managers should help employees and users to realize that using a particular system will make your life and work easy and comfortable. Hence, valuable systems are considered a positive initiative that leads to user satisfaction (Al-Okaily et al., 2021). Usefulness depends upon the user's intentions and satisfaction level.

The study by Amin, Rezaei, and Abolghasemi (2014) contends that PU is directly associated with users' satisfaction. Another study suggested that PU positively influence mobile banking (Alalwan, Dwivedi, Rana, & Williams, 2016). Retailing is also playing an essential role in today's business. To gain a competitive advantage, retailers are making improvements to provide better services and benefits to their users. Supply chain management, customer satisfaction and customer management are the three main technological innovations in retailing. PU is a necessary antecedent that plays a significant role in adopting innovative technologies in retailing to enjoy the benefits (Jegundo et al., 2020; Tahar, Riyadh, Sofyani, & Purnomo, 2020). Hence PU