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THE IMPACT OF E-SERVICES QUALITY ON CITIZENS' SATISFACTION: AN APPLIED STUDY AT AL AIN MUNICIPALITY UAE

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ABSTRACT

This research aimed to study the quality of e-service and its impact on citizen's satisfaction. The research measured and analyzed the quality of e-service through five dimensions: Reliability, Availability, Privacy and Responsiveness. A survey that consisted of 32 questions had been sent to 350 citizens, 279 valid replies had been received and used in the analysis. To analyze and evaluate the results, we used descriptive statistics including mean, percentages and frequency count, and some inferential statistics like Cronbach Alpha, Pearson coefficient, multiple correlation, ANOVA and multiple regressions. The findings of the research showed that the citizens had evaluated the quality of the e-services (throughout all dimensions) as fair or medium service, the citizens were satisfied with three of the E-service dimensions: Reliability, Availability and Privacy but they were not satisfied with the Responsiveness. The research also found that there is a positive and significant impact of each of the e-service quality dimensions on the citizen's satisfaction. The research proposes several recommendations that could raise the citizen's satisfaction such as increasing the awareness of the importance of the e-services provided, provide the citizens with enough information and guidelines on the systems usage, conduct workshops and live demonstration on how to use its system, have a special and qualified support team available at all times to help users to solve any problem they might face, answer the 's questions and enquires as fast as possible and expand, modify and update the systems so they include all the services customers need.

Keywords: E-services Quality, Citizens' Satisfaction, Al Ain Municipality, UAE

INTRODUCTION

Technology has made various aspects of life easier for today's societies (Ma & Zheng, 2019). More importantly, it has become an essential element in improving the quality of services in general and e-government services in particular (Lee et al., 2015). It is said that the e-government service depends on providing the services needed by the citizens using technological methods that are free from facial interaction (Skordoulis et al., 2017).

UAE is among the country that heavily uses information and communication technology, and it is one of the first countries in the region to adopt and move to e-government. In the UAE, e-government is applied among all the sectors. The UAE Federal Government endeavours to strengthen and support the UAE's competitiveness through the adoption of world-class practices in all the fields of e-government. Creating innovation in the e-government to increase the UAE's competitiveness is for the fulfilment of the citizens' expectations (Alketbi, 2018).

Most of the previous studies have studied the quality of online services, and many have focused on government services, especially as many countries have become inclined to make government services electronic. Many studies have examined how to measure the quality of electronic services, but few of them have examined the relationship between the quality of electronic banking services and customer satisfaction in the UAE (Fahed, 2020). This study fills a gap in the literature because it deals with the issue of electronic services in government transactions completely without any exceptions, and in the Emirates, a country in the Middle East, no similar study has been conducted in it before to the knowledge of the authors (Malik et al., 2016). The implications of this study emphasize the significant impact of the quality of electronic services on customer satisfaction, and the important impact of electronic service reliability on citizens' perceptions of service quality.

Al Ain City Municipality is one of several departments within the Municipal Affairs Authority in the Abu Dhabi government, it is a government institution directed to serve Al Ain Area and the neighbouring outskirts. Al Ain city Municipality offers many e-services to its citizen more than 50% of the total services are offered electronically (AlNuaimi, Alnuaimi & Alnuaimi, 2011). This research (which is a requirement for an undergraduate course in Abu Dhabi University), aims to study the quality of the e-service offered by Al Ain city Municipality and the impact of the quality of these services on citizen's satisfaction.

The main focus of e-government is to improve the delivery of government services; and to create a better government for citizens, businesses and other governments with the help of ICT, especially the Internet. Therefore, many governments around the world had started to offer most of their services through electronic systems. A large amount of money, time and effort were invested in developing high-quality e-services systems in Al Ain City Municipality, but had these systems accomplished the goals and the aims behind developing them?

The research problem is concerned with the quality of e-services and the level of citizens' satisfactions with these services and that is by finding answers to the following questions:

1. What is the level of quality of the e-services offered by Al-Ain city Municipality?
2. What is the level of citizens' satisfaction with the e-services offered by Al Ain city Municipality?
3. Is there an impact of the dimensions of the e-services quality offered by Al Ain city Municipality on the citizen's satisfaction?

The remainder of this research paper is organized as follows: Discussion of the research framework and research hypotheses development, research model, research methodology, results and data analysis, discussion of the results, conclusion, and limitations.

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

E-Service

In the current era, the world is witnessing a great development in the economic field and the consequent recovery in the economic movement, the development of information and communication technology means, the growth of global competition in the field of goods, services and ideas, and the transition of the economy from interest in manufacturing to concern for services and knowledge (Martinović et al., 2017). The quality of service occupied a place and great importance among service providers and beneficiaries, which increased the awareness of service institutions of the importance and role of applying the concept of total quality management to ensure customer satisfaction and loyalty (Skordoulis et al., 2017).

Quality is achieved in providing services by adopting information and communication technology means and training human competencies to use these means to benefit from them and harness them in the interest of the organization or institution (Al-Mhasnah et al., 2018).

The importance of service quality is centered on ensuring high-quality and continuous outputs that satisfy customers and beneficiaries. The different companies and institutions put the satisfaction of the customer and the beneficiary at the top of their hierarchy of priorities. There are a number of methods that ensure customer satisfaction, including the adoption of a customer survey method to find out their trends and desires (Schmeleva et al., 2017). In addition, the method of feedback helps to know the customers' opinion on the proposed product and their suggestions to improve the quality of the product and thus keep pace with those desires and work to achieve them as much as possible (Mahdavi et al., 2018).

Electronic service, short as e-service, is a general term that refers to services over the information and communication technologies, the most common dominant application areas of e-services are E-business, E-commerce and E-government. Wilson, et al., (1998) defines e-service as “an activity or series of activities that takes place during the interaction between a provider and a citizen through an electronic channel. Tiwana & Ramesh (2001), defined e-services as “Internet-based applications that fulfill service needs by seamlessly bringing together distributed, specialized resources to enable complex, (often real-time) transactions. Zeitham, Bitner & Gremler (2018) defined e-service as web services delivered through the Internet. According to Hai & Jeong (2007), “e-services on the Internet where it is possible to make a purchase and sale transactions, unlike traditional websites, where only have descriptive information available. Scupola (2008) stated that: E-services are defined as services that are produced, provided and/or consumed through the use of ICT-networks such as Internet-based systems and mobile solutions. Furthermore, the European judiciary defined e-service as “a service or resource on the Internet, which was set up to improve communication between citizens and businesses on the one hand and the European Institutions on the other side” (Barzilai-Nahon & Scholl, 2013).

The application of quality standards also helps to enable companies and institutions to enter strongly into new markets and competition, as the concept of comprehensive quality gives competitive strength to companies and institution (Mahdavi et al., 2018). When have prior experience in implementing the concept of comprehensive quality and applying its standards, and this concept contributes to placing the company in the ranks of the major companies that Adhere to international quality standards (Sun et al., 2019).

It also helps to ensure maximum utilization of labor and the application of administrative policies that work to achieve job stability for workers (Tsegaw, 2017). Such as using the training method that keeps employees qualified to do different and varied work, as well as the method of reward and motivation that encourages employees to increase their productivity and improve its quality, all of which works to achieve the concept of comprehensive quality in the institutions (Wirtz & Kurtz, 2018).

Countries around the world Implement e-government hoping to achieve many goals and gain many benefits, one of the most important goal is to reduce or exterminate delays and intermediaries between the government and citizens or businesses which raises the costs and restrain delivery of government services (Riedl et al., 2009). Furthermore, the e-government aims at improving public service delivery and access to information and services by providing efficient dissemination and management of information to the citizen, increasing government transparency and accountability, and empowering the citizens through allowing them ready access to information and participation in public and policy decision-making. As the application of quality standards is one of the most important reasons that help the success of the e-government application and make the best use of it (Taherdoost, 2018).

Customer Satisfaction

The concept of customer satisfaction is one of the most prominent modern concepts that aim to meet the needs and requirements of customers (Sudari, Tarofder & Tham, 2019). Respond to all their inquiries, and secure their requirements on time, according to the required characteristics, and within the specified conditions, in a manner that ensures their continued dealings with them, and achieves more sales, thus ensuring increased profits (Afthanorhan et al., 2019).

The concept of customer satisfaction is represented in the efforts made by various business establishments to gain consumer satisfaction, by providing material production goods or important services according to the standards appropriate to their requirements and needs, and preventing them from being acquired by other competing companies, by selling products at reasonable prices within the same characteristics. Appropriate quality, provided at the specified times for delivery by parties, seller and buyer, without any delay (Imran et al., 2019).

Improving the level of services or goods provided by a specific company or organization, and achieving the required level of customer satisfaction helps to repeat the purchasing experience by them (Vasić et al., 2019). This relates to the permanence that service or product providers look for in consumers to ensure there is a constant demand for their products or services (Rita et al., 2019).

In addition, the search for new customers is more expensive than the continuation of the existing customers, and therefore companies or organizations seek to maintain their customers because this is less expensive (Al-Omari et al., 2020).

As for government institutions and agencies, the quality of service is closely linked to the satisfaction of citizens and increases their confidence in government agencies and increases the government's ability to complete government transactions quickly and easily, which reduces time and effort wasted (Afthanorhan et al., 2019).

Citizens Satisfaction with E-Services

User satisfaction toward e-services refers to the overall effective evaluation that is perceived by the user toward his experience in using these online services (Al Hujran et al., 2013). According to Welch, Hinnant & Moon (2005), certain factors affect citizen satisfaction when it comes to e-government services. The first factor is the perception of online service convenience (transaction). The second is the reliability of information (transparency), and the last is the engaged electronic communication (interactivity). Besides, Kelly & Swindell (2002) definition of citizen satisfaction views it as service output by the performance measurements and service outcomes. To measure the success of service outcome, one appropriate method is Citizen Satisfaction analysis. By utilizing information and internet communication technology appropriately, the government can elevate citizen satisfaction. According to Taherdoost (2018), satisfaction is linked to the user's belief regarding the provided e-services and the extent to which they meet his needs and expectation. Since e-services are provided to users to meet their transactional needs, fulfilling their satisfaction is regarded as important for the success of e-governments. Besides, user satisfaction may be used to assess the quality of the provided e-services. If the governmental online system provides users with satisfying e-services, they will adopt such services and keep using them frequently (Tella & Abdulmumin, 2018). Terziu (2020) outlined the role of citizen' satisfaction for the success of public e-services. Moreover, he pointed that e-government relies mainly on citizens since it exploits digital technology. In other words, the public departments possess the technology rather than the e-government itself because the citizen is the main actor in the participation process as well as he possess the decision to use the e-services. The more satisfaction achieved among the users of the provided e-services, the more likely they keep using them (Mirghafoori, Izadi & Daei, 2018).

In 2010, user satisfaction was addressed and therefore used as the main criterion to assess the public e-services in 10 countries are Singapore, Norway, United Arab Emirates, S. Korea, KSA, USA, UK, India, Germany, and Brazil. In this sense, user satisfaction was used to measure the extent of citizens' belief in meeting their needs and providing them with high-quality e-services (Al Hujran, Aloudat & Altarawneh, 2013).

RESEARCH MODEL AND HYPOTHESES

To achieve the research aims, the following research model is proposed.

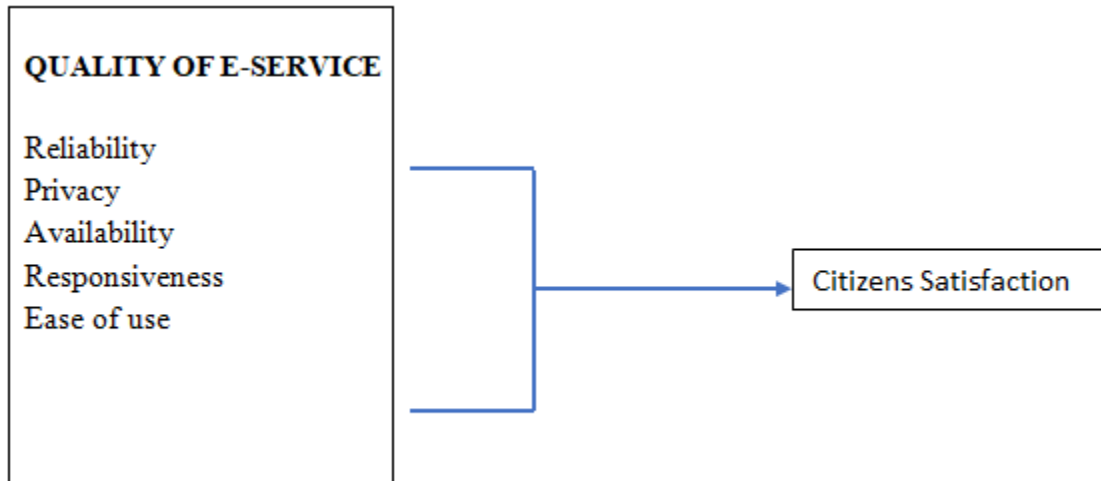


FIGURE 1
RESEARCH MODEL

Based on this model, the researcher suggests the following hypothesis to be examined to understand the level of impact of the quality of the e-services on the citizen's satisfaction. The hypothesis is:

- H1* There is a statistically significant impact of the quality of the e-services offered by Al Ain city Municipality on the citizens' satisfaction.
- H1a* There is a statistically significant impact of the reliability of the e-services offered by Al Ain city Municipality on the citizens' satisfaction.
- H1b* There is a statistically significant impact of the privacy of the e-services offered by Al Ain city Municipality on the citizens' satisfaction
- H1c* There is a statistically significant impact of the availability of the e-services offered by Al Ain city Municipality on the citizens' satisfaction
- H1d* There is a statistically significant impact of the Responsiveness and support of the e-services offered by Al Ain city Municipality on the citizens' satisfaction.
- H1e* There is a statistically significant impact of the Ease of use of the e-services offered by Al Ain city Municipality on the citizens' satisfaction.

RESEARCH METHODOLOGY

The current research is based on the quantitative approach as it fits the purpose of the study. Quantitative approach is concerned with the gathering and examination of information in numeric shape from the chosen sample. The population of the study consisted of random sample from (279) as random sample from the citizens in Al Ain city as it is classified into its demographic characteristics in the tables below:

Demographic	Groups	Sample	
		Frequency	Percentage
Gender	Male	161	57.70%
	Female	118	42.30%
	Total	279	100%
Educational Level	Bachelor's Degree	228	81.80%
	Master's Degree	27	9.50%
	Doctorate Degree	24	8.70%
	Total	279	100.00%
Years of Experience	Less than 5 year	25	9.10%
	5-10 years	114	40.70%
	11-15 years	129	46.20%
	More than 15 years	11	3.90%
	Total	279	100.00%
age	Less than 35 Years old	25	9%
	35-45 Years old	168	60%
	45-55 Years old	86	31%
	Total	279	100.00%

From table 1 it shows that the percent of males from the Sample was (57.7%) meanwhile it was for females (42.3%). Regarding the Educational level demographics of the study sample. Participants were classified into 3 groups according to their academic degree. The first and the largest group is the bachelor's degree holders which makes up (81.8%) (n=228) of the study sample the second group is Master's degree holders that makes up (9.5%) (n=27) and finally doctorate degree holders group which makes (8.7%) (n=24) of the study sample

Also years of experience demographics for the study sample (n=279) participants were divided into four category according to their experience the first category represent participants with the least experience who have less than five years. This category makes up (9.1%) (n=25) while the second category represents whose experience ranged between 5 years–10 years; this category makes up (40.7%) (n=114) of the study sample. The third category whose experience ranged between 11-15; this category makes up (46.2%) (n=129) of the study sample. The last category that have more than 15 years of makes up (3.9%) (n=1) of the study sample.

Age demographics of the study sample (n=279) participated. According to age demographics participants were divided into three categories. The first category that are less than 35 years make up (9.0%) (n=25). While the second category who are between 35 years-45 years old makeup (60%) of the study sample (n=168) which means that the largest category of the study sample are still in their golden age in terms activity and perseverance. The third category aged between 45-55 years old makeup, (31%) (n=86) of the study sample.

The Research Instrument

The instrument contains (31) questions that illustrate the impact of E-services quality on citizen's satisfaction: An applied study.

The questionnaire contains variables and questions represent study variables like the following:

Independent Variable (E-services Quality): It is formulated into benchmarks or objectives to reach, into (5) fields with a total of (26) question:

- Reliability: contains (9) questions.
- Availability: contains (4) questions.
- Privacy: contains (4) questions.
- Responsiveness: contains (4) questions.
- Ease of use: contains (5) questions.

Dependent Variable (Citizen's Satisfaction): It is formulated into (5) questions:

Data Analysis and Interpretation

To examine the hypotheses to examine the impact of E-services quality on citizen's satisfaction: an applied study. Statistical Package for Social Sciences (SPSS) in processing the following statistical techniques and tests in data analysis:

1. Reliability Test
2. Descriptive Statistical Techniques
3. Multiple Regression

For the study means were divided into three stages as (1.33) is the length of each stage:

- Low: For means (1-2.33)
- Moderate: For means (2.34-3.67)
- High: For means (3.68-5)

Validity and Reliability of the Instruments

The test gave to experts to judge the extent to which the test is valid and reliable. For this reason, the test would be designed to meet such requirements as the validity of the test. The experts will be chosen according to their broad experiences in the field.

To get to the degree of reliability of the test, the researcher used the reliability test for the instrument's measurement. The reliability of a measure highlights the stability of consistency with which the instrument is measuring the concept and helps to assess the 'goodness' of a measure to reach the research goal which is to examine the impact of E-services quality on citizen's satisfaction: an applied study, to compare if the students achieve stability.

Table 2		
CRONBACH'S ALPHA FOR THE STUDY FIELDS		
Field number	Field	Value of (α)
Independent Variable: Public relations		
F1-1	Reliability	0.841
F1-2	Availability	0.796
F1-3	Privacy	0.839
F1-4	Responsiveness	0.718
F1-5	Ease of use	0.895
Dependent Variable: citizen's satisfaction		
F2-1	citizen's satisfaction	0.865

As shown from the table 2 above that the total Cronbach's alpha for the study fields was above than (0.60) which will lead to the stability of the results for this study.

FINDINGS AND DISCUSSION

Descriptive Statistical Techniques

Means and standard deviation were calculated for each field in the study instrument and Table (3) shows the results:

field number	Field	Std. Deviation	Mean	Level
F1-1	Reliability	0.59	3.42	Moderate
F1-2	Availability	0.72	3.49	Moderate
F1-3	Privacy	0.9	3.77	Moderate
F1-4	Responsiveness	0.91	3.13	Moderate
F1-5	Ease of use	1.06	3.31	Moderate
Independent Variable: Public relations		0.54	3.42	Moderate
Dependent Variable: Citizen's satisfaction		0.45	3.26	Moderate

As seen in the above table that reliability field achieved mean which reached (3.42) and a standard deviation (0.59), and availability field achieved mean which reached (3.49) and a standard deviation (0.72), and privacy field achieved mean which reached (3.77), and a standard deviation (0.90) and responsiveness field achieved mean which reached (3.13) and a standard deviation (0.91), and ease of use field achieved mean which reached (3.31), and a standard deviation (1.06) so independent variable public relations achieved mean which reached (3.42), and a standard deviation (0.54), and dependent variable citizen's satisfaction achieved mean which reached (3.26), and a standard deviation (0.45).

HYPOTHESIS TESTING

To analyze the data and to explore the impact of E-services quality dimensions on citizen's satisfaction: an applied study, multiple regression is used to test the main research hypothesis and all its sub-hypotheses as shown in Table (4).

Dependent Variable	(R)	(R ²)	F Calculate	DF	Sig*	B		T Calculate	Sig*
Citizen's Satisfaction	0.836a	0.699	126.526	5	0	Reliability	0.48	18.833	0
				273		Availability	0.041	1.273	0.204
				278		Privacy	0.199	7.244	0
						Responsiveness	0.011	0.527	0.598
						Ease of use	0.017	1.107	0.269

* Impact is significant at level ($\alpha \leq 0.05$)

Table 4 illustrates that the impact of quality of the e-services offered by Al-Ain city Municipality on Citizen's Satisfaction from result shows that there is a significant impact for quality of the e-services offered by Al-Ain city Municipality on Citizen's Satisfaction because the

significant value was (0.000) less than (0.05), the value of R is the square root of R-Squared and is the correlation between the observed and predicted values of the dependent variable was (0.836). The coefficient of determination R^2 (0.699) therefore, about 69.9% of the variation in Citizen's Satisfaction explained by the quality of the e-services offered by Al-Ain city Municipality. Restriction Parameter (F) was (126.526) of the Citizen's Satisfaction will be caused from the quality of the e-services offered by Al-Ain city Municipality).

The above table illustrate there is a significant impact for quality of the Reliability of the E-services offered by Al Ain city Municipality on Citizen's Satisfaction because the significant value was (0.000) less than (0.05). Furthermore, the result shows that there is a significant impact for quality of the Privacy of the E-services offered by Al Ain city Municipality on Citizen's Satisfaction because the significant value was (0.000) less than (0.05),

Although the quality of electronic services is the main tool for competitiveness, its effectiveness is only achieved through customer satisfaction, while there are contradictory views on service quality and customer satisfaction in terms of the former. The study considered the quality of electronic services as a determinant of customer satisfaction. But the real goal of the organization is that in addition to satisfying customers, they want to benefit from it, that is, to make a profit by creating a loyal customer base, which is identified in the Service Profit Series (Fahed, 2020) model. Consequently, the study aimed to determine the impact of the quality of electronic services on customer satisfaction in the municipality of Al Ain. Initially, the study looked at the multiple regression analysis to check the impact of the quality of the e-services offered by Al-Ain City Municipality on the citizen's satisfaction; result shows that there is a significant impact for quality of the e-services offered by Al-Ain city Municipality on Citizen's Satisfaction because the significant. Although previous studies have stated that quality of service has a greater contribution to customer loyalty, Bhuvana & Vasantha (2020) specifically state that quality of service leads to the creation and expansion of customer loyalty. Studies also found that there is a strong correlation between service quality and customer loyalty (AlBalushi, 2021) but the study did not prove anything of the sort.

The results of this study showed not only that the quality of electronic service is a factor that has a lot to do with citizens' satisfaction with e-services in the municipality, but also that reliability is the strongest dimension of service quality that affects customer satisfaction. This supports previous research (Hammoud, Bizri & El Baba, 2018; Nguyen, Phan & Nguyen, 2020), which suggested that service quality is a precedent for customer satisfaction with a significant and positive impact on it. These results have been supported by previous research (Jerry, 2020) which empirically shows that there is a direct relationship between the dimensions of online service quality and citizen satisfaction.

The variable privacy was shown to have a significant and positive influence on customer satisfaction, which is consistent with previous studies. According to Anwar, Ishikul & Anjem (2016), the use of electronic services provides citizens with an opportunity to conduct their transactions immediately, not because of the low cost, but because of the availability of the service and the preservation of privacy from the spread and intolerance of personal information (Ma & Wu, 2020). Our result is consistent with studies conducted in other markets (Hedlund, 2020), which suggested that higher levels of privacy increase customer satisfaction with online services.

On the other hand, although the dimension of Availability, Responsiveness, Ease of use had a positive and significant effect on customer satisfaction in general, thus confirming previous research (Jun, Yang & Kim, 2004), its impact seems to be lower than the other variables of service quality in this study.

RESEARCH IMPLICATIONS

Obtaining services on broadband requires a certain level of technical knowledge; unfortunately, not all citizens master it. Therefore, most of the time, citizens depend on service employees to obtain technical assistance and other related issues, which increases the employee's burden and wastes the citizen's time in conducting his transactions. Through the study, it was determined that providing services via the Internet plays a major role in providing a high-quality service in a record time. Hence, service quality has to be measured at regular intervals as it leads to customer satisfaction and loyalty. By improving the quality of electronic service, service providers can build trust among their customers through the service provided by employees in order to ensure customer satisfaction and then obtain their loyalty. Hence, to improve service quality, service providers should create sites that are easy to use and can be accessed at any time, but also they must focus on customer-oriented service quality in terms of speed, perfection and efficiency because they represent a key tool to differentiate the services provided by the government in the long term.

The importance of electronic services revolves around facilitating obtaining a specific service and making it accessible to those who wish to obtain it, and whenever the electronic service is available, easy to use and respects the customer, it continues to succeed and develop through the continued dependence and confidence of customers in it. The importance of electronic services lies in the fact that they enabled different business owners to reach a huge base of customers from different countries easily and inexpensively (Sánchez-Torres & Miles, 2017).

This study helps e-services providers in personalizing the users' experiences by adapting to a number of aspects that promotes their satisfaction. This study provides the understanding of the features the users look for in their experience with e-services. One of the most significant features is privacy. E-service users want to be assured that their experience is private and their information is secured. Nevertheless, users want a smooth, uncomplicated, and efficient experience. In other words, securing users' information and providing privacy should not outweigh the smoothness of getting things done by e-service. Another feature that raises users' satisfaction level is web-site reliability. This includes availability, performance, and usability. Based on this study e-service providers can improve these aspects to meet the users' needs starting from being able to access these services at any time and place to achieving their work efficiently.

Adapting this study to e-service systems can help in raising the satisfaction of citizens while using these services. E-service providers can guarantee users' loyalty by making decisions based on this study, as it provides them with insights to satisfy users' need to feel that their transactions and operations are secured. Another significant impact of this study is that it can inspire developing a web site that is 24/7 available to serve citizens. Such a service would be a huge plus in the sector of e-services; as it increases functionality and help in the completion of the work.

On the other hand, citizens who benefit from e-services would feel the positive impact of saving time and effort. They do not have to endure all the difficulties that face citizens who get their work done by the traditional way, such as long lines, paper work, and the formalities. A successful adaption of e-services can push citizens towards relying on this modern method to accomplish a large variety of daily tasks, which at the end of the day will reflect on their satisfaction and trust in the e-services providers.

CONCLUSION AND RECOMMENDATIONS

The main purpose of this research was to investigate and evaluate the quality of the e-services offered by Al Ain City Municipality and measure the impact of the service on citizens' satisfaction. The results of the descriptive statistical analysis indicated the followings:

1. The Citizens were satisfied with all the dimensions of the quality of the service, except the Responsiveness, a large number of the citizens had replied with either strongly disagrees or disagree for all the variable in this dimension, that is mainly because they don't receive support from the administrators of the system and/or they don't receive replies to their queries or questions. As for the other dimensions of the quality of the service, the citizen had a positive evaluation for them. In addition, many citizens had complained that not all the services they need could be done electronically and therefore they need to go to the municipality premises to do them.
2. The findings indicated that the highest relationship was found between reliability and the citizen's Satisfaction, while the lowest relationship was found between Ease of use and citizen's satisfaction. Similarly, the multiple regression results showed that only the two of service quality dimensions (Reliability, Privacy) have a positive and significant impact on citizen's satisfaction, Therefore, Al Ain City Municipality should influence this dimension as a way of ensuring that their citizens get the satisfaction, they expect.
3. From the interviews we had with some of the citizens, many of them had stated that they were not aware that they could do the service directly from their homes and without the need to go to an agency or a service provider and pay extra fees.

The result and findings of this research are in line with the findings of other researches in the same area, for example, Javaid Muhammad & Arfeen (2017) has been concluded from the analysis that all hypotheses were supported based on the contemporary research findings. And In research by Nguyen, Phan & Guyn (2020) was found that six external variables that are of particular relevance to e-government satisfaction are all statistically significant, four factors—efficiency, reliability, citizens support, transparency – are important measures of system quality and positively and significantly impact citizens' satisfaction with the online public services.

Based on the results that the study had reached, here are our recommendations:

1. Al Ain City Municipality should expand, modify and update its systems so they include all the services citizens need and make sure that the e-service could be completed through the system, so the citizen does not need to go personally to the premises of the municipality to complete the service.
2. Al-Ain City Municipality must have an active mechanism to receive suggestions, comments, clarifications and complaints and how to deal with them.
3. Al-Ain City Municipality should conduct workshops and live demonstration on how to use its system (preferably in public places such as malls or exhibition centres) and provide citizens with publications and users manuals.
4. Al-Ain City Municipality must have a special and qualified support team available at all times to help users to solve any problem they might face with the systems, and in addition, answer the citizen's questions and enquires as fast as possible.

LIMITATIONS OF THE RESEARCH

The study is limited to analyze the impact of e-services quality offered by Al Ain city Municipality on the citizens' satisfaction of those services in the city of Al Ain. The research was done as a requirement of an undergraduate course in Abu Dhabi University (Research Applications RA-300) so the researcher was tied within the course time.

The other limitation of the study was that due to the recent situation of COVID-19 in the country, the researcher was not able to reach as many people as he wishes and was not able to visit Al Ain city Municipality premises to gather more information or do the necessary interviews.

REFERENCES

Afthanorhan, A., Awang, Z., Rashid, N., Foziah, H., & Ghazali, P. (2019). Assessing the effects of service quality on customer satisfaction. *Management Science Letters*, 9(1), 13-24.

- Al Hujran, O., Aloudat, A., & Altarawneh, I. (2013). Factors influencing citizen adoption of e-government in developing countries: The case of Jordan. *International Journal of Technology and Human Interaction (IJTHI)*, 9(2), 1-19.
- AlBalushi, T.H. (2021). *E-Services quality: A perspective of service providers and service users*. In E-Service. IntechOpen.
- Alketbi, H. (2018). *An evaluation of e-government effectiveness in Dubai smart government departments*. (Doctoral dissertation, Southampton Solent University).
- Al-Mhasnah, A., Salleh, F., Afthanorhan, A., & Ghazali, P.J.M.S.L. (2018). The relationship between services quality and customer satisfaction among Jordanian healthcare sector. *Management Science Letters*, 8(12), 1413-1420.
- AlNuaimi, M., Shaalan, K., Alnuaimi, M., & Alnuaimi, K. (2011). *Barriers to electronic government citizens' adoption: A case of municipal sector in the emirate of Abu Dhabi*. In 2011 Developments in E-systems Engineering, 398-403, IEEE.
- Al-Omari, Z., Alomari, K., & Aljawarneh, N. (2020). The role of empowerment in improving internal process, customer satisfaction, learning and growth. *Management Science Letters*, 10(4), 841-848.
- Anwer, M.A., Esichaikul, V., Rehman, M., & Anjum, M. (2016). *E-government services evaluation from citizen satisfaction perspective: A case of Afghanistan*. Transforming Government: People, Process and Policy.
- Barzilai-Nahon, K., & Scholl, H.J. (2007). Similarities and differences of e-Commerce and e-Government: Insights from a pilot study. In *2007 40th Annual Hawaii International Conference on System Sciences (HICSS'07)* (pp. 92-92). IEEE.
- Bhuvana, M., & Vasanth, S. (2020). Assessment of rural citizens satisfaction on the service quality of common service centers (cscs) of e-governance. *Journal of Critical Reviews*, 7(5), 302-305.
- Fahed, N.K.S. (2020). A conceptual model of the mediating effect of service value on smart government service quality and users satisfaction in UAE. *Psychology and Education Journal*, 57(9), 5576-5579.
- Hai, C., & Jeong, I. (2007). *Fundamental of development administration*. Scholar.
- Hammoud, J., Bizri, R.M., & El Baba, I. (2018). The impact of e-banking service quality on customer satisfaction: Evidence from the Lebanese banking sector. *SAGE Open*, 8(3), 2158244018790633.
- Hedlund, E. (2020). Citizen's perspectives on municipalities' e-services: A study about how a municipality works with their e-services and how they involve the Citizens.
- Hui, G., & Hayllar, M.R. (2010). Creating public value in e-Government: A public-private-citizen collaboration framework in Web 2.0. *Australian Journal of Public Administration*, 69, S120-S131.
- Imran, M., Hamid, S.N.B.A., Aziz, A., & Hameed, W. (2019). The contributing factors towards e-logistic customer satisfaction: a mediating role of information Technology. *Uncertain Supply Chain Management*, 7(1), 63-72.
- Javaid, M.A., & Arfeen, M.I. (2017, September). Impact of e-government on citizen satisfaction: A case of federal Government Agencies in Pakistan. In *European, Mediterranean, and Middle Eastern Conference on Information Systems* (pp. 221-237). Springer, Cham.
- Jerry, K.M. (2020). *Measuring users' satisfaction from e-government services in the democratic Republic of Congo* (Doctoral dissertation).
- Kelly, J.M., & Swindell, D. (2002). Service quality variation across urban space: First steps toward a model of citizen satisfaction. *Journal of urban affairs*, 24(3), 271-288.
- Lee, H., Sivarajah, U., Molnar, A., Weerakkody, V., & Irani, Z. (2015). A user satisfaction study of London's congestion charge e-service: A citizen perspective. *International Journal of Electronic Government Research (IJEGR)*, 11(2), 35-50.
- Ma, L., & Wu, X. (2020). Citizen engagement and co-production of e-government services in China. *Journal of Chinese Governance*, 5(1), 68-89.
- Ma, L., & Zheng, Y. (2019). National e-government performance and citizen satisfaction: a multilevel analysis across European countries. *International Review of Administrative Sciences*, 85(3), 506-526.
- Mahdavi, M., Parsaeian, M., Jaafaripooyan, E., & Ghaffari, S. (2018). Recent Iranian health system reform: an operational perspective to improve health services quality. *International journal of health policy and management*, 7(1), 70.
- Malik, B.H., Shuqin, C., Mastoi, A.G., Gul, N., & Gul, H. (2016). Evaluating citizen e-satisfaction from e-government services: A case of Pakistan. *European Scientific Journal*, 12(5).
- Martinović, M., Pavlič, I., & Šuman Tolić, M. (2017). Measurement of local public services 'quality using servqual: The case of Dubrovnik. *Economic thought and practice*, 2, 593-610.
- Mirghafoori, S.H., Izadi, M.R., & Daei, A. (2018). Analysis of the barriers affecting the quality of electronic services of libraries by VIKOR, FMEA and entropy combined approach. In an intuitionistic-fuzzy environment. *Journal of Intelligent & Fuzzy Systems*, 34(4), 2441-2451.
- Nguyen, T.T., Phan, D.M., Le, A.H., & Nguyen, L.T.N. (2020). The determinants of citizens' satisfaction of e-government: An empirical study in Vietnam. *The Journal of Asian Finance, Economics, and Business*, 7(8), 519-531.

- Riedl, C., Leimeister, J.M., & Krcmar, H. (2009, August). New service development for electronic services—A literature review. *Association for Information Systems*.
- Rita, P., Oliveira, T., & Farisa, A. (2019). The impact of e-service quality and customer satisfaction on customer behavior in online shopping. *Heliyon*, 5(10), e02690.
- Sánchez-Torres, J.M., & Miles, I. (2017). The role of future-oriented technology analysis in e-Government: A systematic review. *European Journal of Futures Research*, 5(1), 1-18.
- Schmeleva, A.N., GUGELEV, A.V., & Umnova, M.G. (2017). Development of the methodology of quality evaluation and quality improvement of tourist services in territorial subjects of the Russian Federation. *Quality-Access to Success*, 18(156).
- Scupola, A. (2008). E-services: Definition, characteristics and taxonomy. *Journal of Electronic Commerce in Organizations*, 6(2), 1.
- Skordoulis, M., Alasonas, P., & Pekka-Economou, V. (2017). E-government services quality and citizens' satisfaction: A multi-criteria satisfaction analysis of TAXISnet information system in Greece. *International Journal of Productivity and Quality Management*, 22(1), 82-100.
- Sudari, S., Tarofder, A., Khatibi, A., & Tham, J. (2019). Measuring the critical effect of marketing mix on customer loyalty through customer satisfaction in food and beverage products. *Management Science Letters*, 9(9), 1385-1396.
- Sun, X., Wang, S., Xia, Y., & Zheng, W. (2019). Predictive-trend-aware composition of web services with time-varying quality-of-service. *IEEE access*, 8, 1910-1921.
- Taherdoost, H. (2018). Development of an adoption model to assess user acceptance of e-service technology: E-service technology acceptance model. *Behaviour & Information Technology*, 37(2), 173-197.
- Tella, A., & Abdulmumin, I. (2015). Predictors of users' satisfaction with e-payment system: A case study of staff at the University of Ilorin, Nigeria. *Organizacija*, 48(4).
- Terziu, H. (2020). The role of the internet in the development of marketing and electronic services in business. *European Journal of Economics and Business Studies*, 6(2), 1-12.
- Tiwana, A., & Ramesh, B. (2001). E-services: Problems, opportunities, and digital platforms. In *Proceedings of the 34th annual Hawaii international conference on system sciences, IEEE*.
- Tsegaw, W.E. (2017). Tourist services quality gap analysis in National Parks of Ethiopia: Evidence from Nech Sar National Park. *Journal of Tourism & Hospitality*, 6(319), 2167-0269.
- Vasić, N., Kilibarda, M., & Kaurin, T. (2019). The influence of online shopping determinants on customer satisfaction in the Serbian market. *Journal of theoretical and applied electronic commerce research*, 14(2), 70-89.
- Welch, E.W., Hinnant, C.C., & Moon, M.J. (2005). Linking citizen satisfaction with e-government and trust in government. *Journal of public administration research and theory*, 15(3), 371-391.
- Wilson, M., De Zafra, D.E., Pitcher, S.I., Tressler, J.D., & Ippolito, J.B. (1998). *Information technology security training requirements: A role-and performance-based model*. National Institute of Standards and Technology Gaithersburg Md Computer Security Div.
- Wirtz, B.W., & Kurtz, O.T. (2018). Local e-government services: Quality aspects and citizen usage preferences. *Electronic government an International Journal*, 14(2), 160-176.
- Zeithaml, V.A., Bitner, M.J., & Gremler, D.D. (2018). *Services marketing: Integrating customer focus across the firm*. McGraw-Hill Education.