

**E-Service Quality and Attracting staff behavior towards optimal
utilization : a case study of Al-Aqsa University – Gaza**
جودة الخدمة الإلكترونية وجذب سلوك الموظفين نحو الاستخدام الأمثل: دراسة حالة
لجامعة الأقصى - غزة

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Abstract

Optimal utilization behaviors (OUB) denote suitable and favorable usage of al-Aqsa University website services by employees. The purpose of this study is to identify the e-service quality dimensions and to examine the effect of these dimensions of (OUB). The primary data of e-SQ and OUB were gathered from 161 administrative and academic staff of al-Aqsa university in Gaza. The data analysis and results were analyzed by IBM SPSS 20 statistical software. The results finding indicated that the important e-service dimensions of al-Aqsa university in Gaza are website design, website efficiency, information quality, information security, responsiveness, and services fulfillment. The results of Pearson correlation analysis indicates that there is a positive relationship between these dimensions and optimal utilization behaviors. Moreover, the stepwise regression indicated that only three dimensions (information quality, security, and services fulfillment) have positive effects on OUB. Based on these results, the study recommends increasing attention to the quality of university electronic services, especially the quality and security of information.

Key Words: E-service quality, Attracting staff, al-Aqsa University.

المخلص

هدفت الدراسة إلى التعرف على أبعاد جودة الخدمة الإلكترونية في جامعة الأقصى بغزة وتأثيرها على سلوك الاستخدام الأمثل لدى العاملين بالجامعة. وقد تم تحديد أبعاد جودة الخدمة الإلكترونية بالاعتماد على الأدبيات والدراسات السابقة. وتم جمع البيانات الأولية من خلال استبانة وزعت على عينة عشوائية من الموظفين الإداريين والأكاديميين في جامعة الأقصى بلغ عددهم (161) موظف. وتم تحليل البيانات باستخدام البرنامج الإحصائي SPSS. وأشارت النتائج إلى أن أبعاد الخدمات الإلكترونية الهامة في جامعة الأقصى بغزة هي (سهولة الاستخدام، تصميم الموقع، الفعالية، جودة المعلومات، السرية، الاستجابة، إنجاز الخدمة). وتشير نتائج تحليل الارتباط إلى وجود علاقة ارتباطية إيجابية دالة بين أبعاد جودة الخدمة الإلكترونية وسلوكيات الاستخدام الأمثل. علاوة على ذلك، أشار الانحدار التدريجي إلى أن ثلاثة أبعاد فقط (جودة المعلومات، والسرية، وإنجاز الخدمات) لها آثار إيجابية على سلوك الاستخدام الأمثل للموظف. وبناءً على هذه النتائج، توصي الدراسة بزيادة الاهتمام بجودة الخدمات الإلكترونية للجامعة، لا سيما جودة وأمن المعلومات.

الكلمات المفتاحية: جودة الخدمة الإلكترونية، جذب الموظفين، جامعة الأقصى.

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1. Introduction

In recent decades there has been rapid development in information and communication technology (ICT), resulting in the emergence of new and untraditional markets. Therefore, many businesses have converted or supported their traditional services with electronic services (e-services) to acquire these markets and improve competitive advantages (Al-Nuaimi et al., 2013; Liesivesi, 2014; Ostasius & Petraviciute, 2010; Santos, 2003; Shapor et al., 2011). The rapid transformation to e-services led to the failure of many businesses due to the lack of quality (Boyer et al., 2002) . Therefore, many studies have interested in analyzing the e-services quality (e-SQ) dimensions in different sectors (Elhabeel & Elser, 2017; Parasuraman et al., 1988).

The e-services in the higher education community are related to all services that offered by websites such as; educational resources, course support, enrolment, applications for research, library and e- learning (Sutarso & Suharmadi, 2011). The studies in the higher education community have reported a strong and significant relationship between e-SQ, student satisfaction and behavioral intentions (Jaroslav et al., 2013; Meštrović, 2017). The universities are considered the main responsible of these services. Where, most universities are interested in providing e-services to their students and their employees with high quality that meets their satisfaction and requirements.

In Palestine, there are (44) high educational institutions and (59,318) students registered in these institutions and (15,571) employees (PCBS, 2017). Al-Aqsa University is considered one of the most important educational governmental institution in Gaza Strip. The university includes 60 different specialties distributed on 10 faculties. The university depends on providing its services to students and staff on many systems, including e-services systems (Al-aqsa, 2018). In general, the educational institutions in Gaza strip suffer from the lack of readiness and capacity of the buildings, laboratories, and libraries, especially under the siege that prevents the ability to expand the building (Rights, 2010). Therefore, e-services have become an important factor in overcoming these problems and enhance the competitiveness of Palestinian educational institutions (Elhabeel & Elser, 2017; Prakash & Muhammed, 2016).

2. Objectives of the Study

The present study attempt to realize the flowing objectives:

- To identify the e-service quality dimensions **in** al-Aqsa university - Gaza.
- To examine the level of Attracting the staff behavior towards optimal utilization of al-Aqsa university website.
- To examine if e-SQ leads to Attracting staff behavior towards optimal utilization of al-Aqsa university website.

3. Research Hypotheses

According to research objectives, the developed hypotheses are:

H1: There is a significant relationship between e-SQ dimensions (responsiveness, easy to use, information quality, website design, effectiveness, security and fulfillment) and optimal utilization behaviors of al-Aqsa university website.

H2: There is a significant impact of e-SQ dimensions (responsiveness, easy to use, information quality, website design, effectiveness, security and fulfillment) on Optimal utilization behaviors of al-Aqsa university website.

Literature Review

4.1 E-Service Quality (e-SQ) Dimensions

E-service concept has been defined in the literature as all services that delivered through the internet (Boyer et al., 2002; Liesivesi, 2014). According to Shapor et al.(2011) the e-service is an interactive information service between organizations and their customers. The rapid growth in e-services and the high expectations of customers for the quality of service provided led to the emergence of the concept of e-service quality (e-SQ). Santos (2003) defined e-SQ as the final result of the customer's judgment based on their experience. Also, Liesivesi (2014) stated that e-SQ can be used to measure customer satisfaction with e-services. Therefore, e-SQ is considered as one of the most important factors for the success or failure of

any business that related to the internet (Parasuraman et al., 2005; Raje & Khanna; Santos, 2003).

The dimensions of e-service quality have received considerable attention in the previous literature. The early study conducted by Zeithaml et al.(2000) proposed a E-S-QUAL model to measure e-SQ using eleven dimensions. These dimensions are reliability, responsiveness, access, flexibility, ease of navigation, efficiency, assurance/trust, security/privacy, price knowledge, site aesthetics, and customization/personalization. In 2005, Parasuraman et al. developed an E-S-QUAL instrument to be four dimensions instead of eleven which are: efficiency, fulfillment, availability, and privacy (Kim, 2015; Parasuraman et al., 2005).

E-S-QUAL has utilized as a basis for identifying the e-SQ dimensions in many studies. For instances; Alanezi et al. (2010) proposed seven dimensions for measuring e-government service quality by reformulating the E-S-QUAL scale. These dimensions are website design, reliability, responsiveness, security/privacy, personalization, information, and ease of use. In the same vein, Al Balushi and Ali(2016) proposed six dimensions of e-government services based on an extensive review of literature and E-S-QUAL scale. The proposed dimensions are reliability, responsiveness, ease of use\usability, website design\content, and security\ privacy. Zavareh et al.(2012) analyzed E-S-QUAL instrument and developed a new instrument to measure internet banking services in Iran. The proposed instrument includes six dimensions, namely efficient and reliable services, fulfillment, security /trust, site aesthetic, responsiveness and ease of use. However, there is no general model applicable to measure e-SQ in all industries. Every industry needs a specific model to measure its e-SQ (Alanezi et al., 2010). The following table shows the e-SQ studies and their proposed dimensions.

Table1: A Review of e-SQ Dimensions

No.	Author (s) /Year	Country	Domain	E-service Quality Dimensions												
				Efficiency	Fulfillment	information Quality	Website design	Privacy	personalization	Reliability	Security	Ease of use	Responsiveness	availability	assurance	Visual appeal
.1	(Zeithaml et al., 2000)	USA	e-service	√				√	√	√	√		√		√	
.2	(Swaid & Wigand, 2009)		quality-customer loyalty			√			√	√		√	√		√	
.3	(Yoo & Donthu, 2001)	USA	Online shopping			√	√		√	√	√	√	√			
.4	(Kaur, 2018)	India	E-Retailing				√		√	√	√	√	√			
.5	(Sinnappan et al., 2005)	Austral	Airline, Computers and E-retail				√					√				√
.6	(Liesivesi, 2014)	Finland							√	√		√				
.7	(Zavareh et al., 2012)	IRAN		√	√				√	√	√	√				
.8	(Loiacono et al., 2007)	USA	CDs, books, hotel-airline reservations										√			√
.9	(Santos, 2003)	UK	Online shopping websites	√					√	√	√					√
.10	(Parasuraman et al., 2005)	USA	Online shopping websites	√	√			√					√	√		
.11	(Alanezi et al., 2010)		e-government			√	√	√	√	√	√	√	√			
.12	(Yousif, 2015)	Jordan	e-service			√										
.13	(Al Balushi & Ali, 2016)	Oman	e-government				√	√		√	√	√	√			
.14	(Cristobal et al., 2007)	Spain	e-service				√			0					√	
.15	(Ardakani et al., 2015)	Iran	Point of Sale							√	√	√	√			
.16	(Elhabeel & Elser, 2017)	Palestine	Universities			√	√					√	√			
Frequency				4	2	5	7	4	5	10	9	10	12	1	3	3

.2 E- Service and Customer Behaviors

E-services are characterized by different features such as low cost of services, the rapid development of new services, feedback from customers, and the continuous improvement of e-services (Riedl et al., 2009). Therefore, e-SQ management is more complicated than traditional services and considered of the most important success or failure factors in the online business (Al-Nuaimi et al., 2013; Yarimoglu, 2014).

In this context, numerous studies classified the relation between SQ and customer satisfaction as strong positive relationship in different countries (i.e. Asaduzzaman et al., 2014; Hasan et al., 2009; Kajenthiran & Karunanithy, 2015; Kuruppu, 2015; Saleem et al., 2017; Van Truong et al., 2016). However, there are few of publications on customers' behavior and e-SQ. In this area, Gounaris et al.(2010) examined the effects of e-SQ on customers' behavior. They indicated that e-SQ influences the consumer's behavioral such as site revisit, word-of-mouth communication and repeat purchase. The similar study conducted by Sousa and Voss(2012) in multi-channel e-services indicated that e-SQ influences the on e-loyalty intentions. Also, (Raje and Khanna (2012) examined the relationship among e-service quality, customer satisfaction and purchase intentions in an On-line Shopping. The results of this study indicated that e-services dimensions (website design, reliability, responsiveness, and trust) affect customer purchase behavior. On the other hand, Ardakani et al.(2015) examined the level of customer satisfaction and e-SQ of e-reader devices. They concluded that the security apparatus reader and low cost have the greatest impact on their satisfaction.

In the higher education community, Jaroslav et al.(2013) examined relationships among service quality and student satisfaction and their impact on students' behavior. They indicated that the quality and satisfaction of higher education is important of students' behavior. A similar study was conducted in Croatia by Meštrović, (2017) indicated that service quality is very important for higher education domain. In the same vein, Prakash and Muhammed (2016) examined the critical service quality dimensions in Indian higher education that leads to behavioral intentions. They found that quality of service is very significant to student's behavior.

4. Research Methodology

The present study is based on E-S-QUAL instrument and extensive literature review that related to e-SQ. The initial questionnaire consisted of 52 items measuring seven dimensions of e-service quality (responsiveness, easy to use, information quality, website design, effective, security, and fulfillment). These dimensions were selected based on the most commonly used in literature review (mentioned previously). The responses were rated using five-point liker scale (from 1: very disagree to 5: very agree). The questionnaire was developed in Google-Docs and the data were processed using Microsoft Excel 2010 and SPSS 20. The reliability and construct validity of the initial questionnaire was examined from statistical reliability analysis and Factor Analysis. To test the research hypotheses, the stepwise multi-regression techniques and person correlation coefficient were utilized. The regression modeling is one of the widest techniques which is used to predict the impact of an independent variable on the dependent variables.

5.1 Sampling

The study targeted the staff of al-Aqsa University in Gaza where the random sample was 161 respondents. The analysis of sample shows that most of respondents were male forming 80.63 %, while female accounted 19.38 %. Moreover, it shows that majority were postgraduate which accounted 91.88 % of the sample. Regarding the respondents experience, 65.6% of the sample have experience more than 10 years, 26.88 % between 6 and 10 years and 7.5% less than 5 years as seen in the figure below.

Table 2: Demographics of the Study

Characteristics	Frequency	Sample Number	Percentage %
Gender	Male	129	80.63
	Female	31	19.38
Education	Postgraduate	147	91.88
	Undergraduate	13	8.13
Experience/Years	Between 1 and 5 years	12	7.50
	Between 6 and 10 years	43	26.88
	More than 10	105	65.63
Job Classification	Academic	69	43.13
	Administrative	65	40.63

Characteristics	Frequency	Sample Number	Percentage %
	Academic/ administrative	26	16.25

5.2 Reliability and Validity Analysis

The reliability of data was checked using Cronbach's Alpha Coefficient. The Cronbach's alpha for this analysis was 0.896, which indicating high reliability. Thus, it can be figured out that the reliability is achieved.

5. Results and Discussion

6.1 Factor Analysis

Factor Analysis is the statistical method used to reduce the dimensions of the research instrument. In this study, a factor analysis was used to determine the dimensions of e-SQ that influence the attraction of staff behavior towards the optimal use of Al-Aqsa University website. The factor analysis method depends on the Eigenvalues and cross loading on determining the number of dimensions in the instrument. Eigenvalues refer to the important factors, where components with Eigenvalues greater than 1 are more significant and factors with Eigenvalues less than 1 are insignificant and are disregarded. Cross loading refers to the distribution of items into two or more dimensions. The component analysis and varimax rotation for e-QS dimensions were run on 52 items from a survey of 161 respondents. The results show only six dimensions that eigenvalues greater than 1.0 and 19 items were eliminated due to cross loading as seen in the table below.

Table 3: Results of Factor Analysis

Factors	Items					
	1	2	3	4	5	6

Factor1: Website Design

1. The content of the website is readable.	.752
2. The language of the website Arabic-English is considered clear and understandable.	.728
3. The employee needs a short time to acquire the skill of using the university website services.	.605
4. The design of the website is considered modern and attractive.	.571

Factors	Items					
	1	2	3	4	5	6
5. The used colors on the website are consistent and comfortable.	.658					
6. The website has a clear logo.	.572					
7. The beauty of the website design is an important factor in the effectiveness of the university website.	.625					
Factor2: Efficiency						
1. The website provides a searching engine to get the required information	.676					
2. The website provides a help and an immediate support for users	.694					
3. The website has a map that makes it easy for the employee to use	.677					
4. The website displays the subheading incoherent way.	.527					
5. The website has external links.	.488					
6. The website has clear usage instructions	.646					
7. The website provides programs and instructions to help the user when a problem occurs	.638					
8. The website provides the frequent questions with their answers to guide the users	.728					
Factor 3: Information Quality						
1. The website updates the lectures and the staffs' information regularly .	.534					
2. The news is published on website continuously and updated	.604					
3. The information on the website contributes to saving time and efforts in doing tasks	.582					
4. The information on the website is accurate and objective	.652					
5. The provided services on the website decrease the numbers of administrations reviews	.670					
6. The contents of the website are well organized and displayed an obvious way	.569					
Factor 4: Security						
1. The website keeps the staff and the employee's information secure.	.755					
2. The website keeps the privacy of the procedures performed by the employees through it.	.810					
3. The website provides tools of protection to prevent it from penetration	.694					
4. The email of the employees is secret and secure.	.782					
Factor 5: Responsiveness						
1. The university website responds to the requests of workers within a short time.	.739					
2. The user can move through the website pages quickly and easily.	.742					
3. The user can access the website from any browser..	.576					

Factors	Items					
	1	2	3	4	5	6
Factor 6: Fulfillment						
1. The website provides accurate information on request.						.504
2. The website has comprehensive information covering all questions						.485
3. The design of the website helps to implement the procedures easily						.515
4. The employees can develop their personal pages on the website easily.						.650
5. The website has a variety of Communication tools such as email and chat.						.535

The results of the previous table showed that six e-service factors are identified. These factors have contributed together to explain 66.493 % of the total variance explained by the e-service dimensions. The first factor is 'website design' which accounting the largest variance (15.737%). This factor includes six items related to website design, color consistency, and website language. The second factor is labeled 'Efficiency' which includes eight items such as searching engine, users support, website map, external links and instructions. The third factor is labeled 'Information Quality' which includes six items such as regularly updating information, saving time and efforts and information accuracy. The fourth factor is labeled 'Security' includes four items related to information protection and security. The fifth factor is labeled 'Responsiveness' includes three items such as response time, browsing and navigating. The latest factor is labeled 'Fulfillment' includes five items such as comprehensive and accurate information, implementing procedures, develop a personal page and communication tools.

6.2 Descriptive Analysis

According to table below, Responsiveness factor has the highest mean of (3.89), followed by website design (3.73), security (3.55), information quality, (3.43), and efficiency (3.31). Whereas fulfillment has the lowest mean of (3.28). This means that respondents believe that e-services at al-Aqsa university are high quality. Where, the result indicated that the level of staff behavioral attraction toward optimal utilization of al-Aqsa university website is high which has the mean of (3.33).

Table 4: Descriptive Statistics

	Mean	Std. Deviation
Website Design	3.73	0.700
Efficiency	3.31	0.738
Information Quality	3.43	0.714
Security	3.55	0.908
Responsiveness	3.89	0.717
Fulfillment	3.28	0.738
OUB	3.33	0.780

6.3 Correlation Analysis

In order to investigate the correlation between e-service quality (Website Design, Efficiency, Information Quality, Security, Responsiveness and Fulfillment) and OUB of al-Aqsa university website was analyzed by Pearson correlation coefficient and the results are presented in the table below.

Table 5: Correlation Coefficient

e-SQ dimensions	Person Correlations	Sig
Website Design	.518**	.000
Efficiency	.524**	.000
Information Quality	.609**	.000
Security	.558**	.000
Responsiveness	.444**	.000
Fulfillment	.603**	.000

** . Correlation is significant at the 0.01 level (1-tailed).

As we can see from the table 5, Information Quality has strongest relationship ($p=0.609$), followed by Fulfillment ($p=0.603$), Security ($p=0.558$), Website Design ($p=0.518$) and Responsiveness ($p=0.444$). This indicates that there is a positive relationship between all e-SQ dimensions (independent factors) and OUB (dependent factor). Hence, the first hypothesis is accepted.

6.4 Regression Analysis

In this study, the impact of e-SQ on staff behavioral attraction at al-Aqsa University in Gaza strip were analyzed by stepwise multiple regression. The

results of the regression analysis were revealed as presented in the table below.

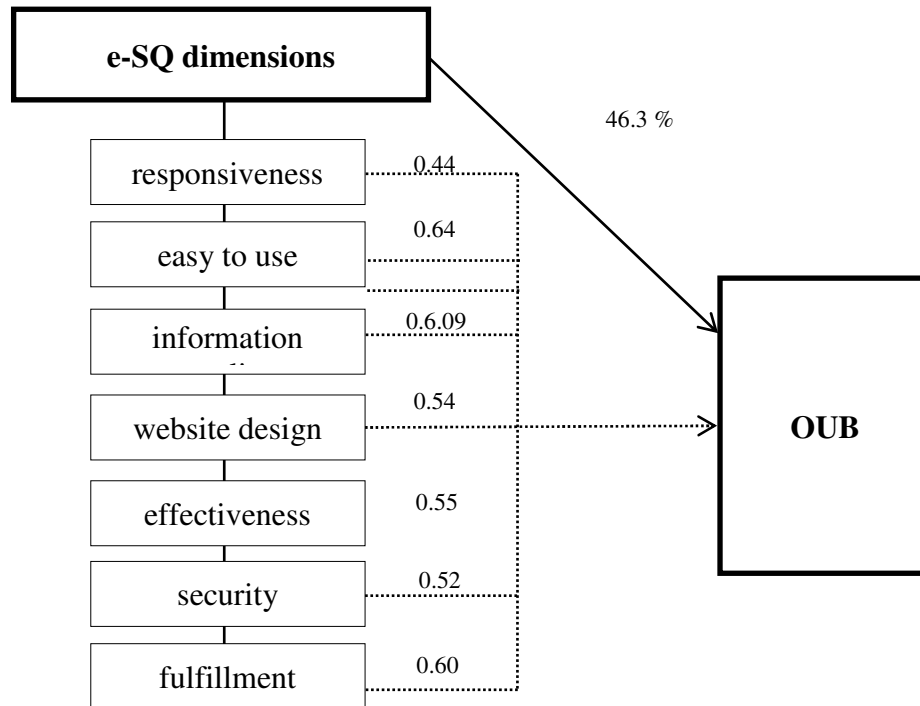
Table 6: Fit Model Regression Analysis (DV: OUB)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
(Constant)	.639	.238	Beta	2.68	.008
Information Quality	.318	.097	.291	3.27	.001
Security	.218	.064	.254	3.41	.001
Fulfillment	.252	.097	.239	2.61	.010
R =0.680	R²=0.463	Adjusted R²=0.453	F value=44.848	Sig. F=0.000	

The regression analysis tells us that the value of R is 0.68 and p-value is 0.000, which indicates that e-SQ and staff behavioral attraction are positively related. The R Square = 0.463 states that 46.3% of the total variance in the dependent variable (Staff Behavioral Attraction) is explained by e-SQ and 53.7% by other factors not covered in the study. Based on these results, the regression equation predicated as the following:

$$OUB = .639 + .318 \text{ Information Quality} + .218 \text{ Security} + .252 \text{ Fulfillment} + e$$

The previous regression discovers that, if there is a unit enhance in e-service quality dimensions (information quality, security and fulfillment), this will enhance the utilization behaviors of al-Aqsa university website. Hence, the second hypothesis is accepted. In the light of these results, the following model represents the relationships between independent variables (e-SQ) and dependent variable (Staff Behavioral Attraction) in this study.

Figure 1: Research Model

6. CONCLUSIONS

The objective of this study is to identify the e-SQ dimensions that contribute to Attracting staff behavior towards optimal utilization of al-Aqsa university website . The six important e- service dimensions are website design, website efficiency, information quality, information security, responsiveness and service fulfillment. The results discover that the respondents believe that both the quality of e-services at al-Aqsa university; and the level of staff behavior attraction toward optimum utilization were high. The Pearson correlation analysis indicates that there is a positive relationship between all e-SQ dimensions and OUB. Moreover, the stepwise regression explored the positive effects (46%) of e-SQ dimensions (information quality, security, and fulfillment) on OUB. On the contrary, website design, responsiveness, and efficiency dimensions are not effective dimensions according to respondents view.

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