

Factors Affecting the Use of E-Services from User Perspectives: A Case Study of Al-Balqa' Applied University

Sattam Rakan Allahawiah

Department of Managerial and financial sciences

Albalqa Applied University, Jordan

Karak University College

E-mail: Sattam.amro@yahoo.com

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Abstract

The purpose of this study is to explore the major factors affecting user's utilization and satisfaction of e-services offered by Al-Balqa Applied University, the population of this study consists of 610 participants, a survey was conducted using a questionnaire, the questionnaire was validated by a panel of researchers, 582 usable responses of the questionnaire was collected and analyzed. Results of the study showed that there is an impact of reliability, responsiveness, information quality, security, and usability on the user's satisfaction and intention toward e-services. This study showed how the website design, navigation, and functionality play a crucial role in the overall evaluation of e-service satisfaction. Management of universities need to be aware that a bad experience with website design, navigation, and functionality can affect satisfaction and perception toward e-services that offered by a university.

Keywords: Al-balqa applied university, Information, Quality, Reliability, Security, Usability, Responsiveness, Karak university college

1. Introduction

The innovation of Internet has created a great opportunity for institutions from different sectors to promote, sell and delivers their products and services online, the use of Internet as a distribution channel is becoming more and more popular now a days, electronic services (E-Services) represent online commercial and non-commercial services delivered through the use of information and communication technology (ICT) in different areas, thousands of institutions around the world are integrating e-services into their web sites, organizations engaged in e-businesses like banking, airlines, management consulting and educational institutions among many others are adopting online service delivery to meet demands of customers.

Yang (2001) and Zeithaml (2002) believe that e-service experience greatly affects the establishment of trust and relation with customers, and enterprises must pay attention in this regard. Oliveira et al. (2002) believe that e-service quality can increase the competition of the company's requirement fulfillment.

E-services are beneficial to customers and institutions; cost reduction, time saving and improving customer service are reported by many researchers as great advantages to institutions, where customers can benefit from E-services in interactivity, real-time delivery and availability of services. The success of web-based services relies on user's adoption and continuance of use.

The internet, one of the most successful innovations in the world, has created great opportunities as well as threats for organizations in various business and services sectors, compelling them (either willingly or reluctantly) to support their products or deliver their services 'on line' using the Internet as distribution channel (Chau & Lai, 2003).

Public and private organizations across the world are realigning their strategies to take advantage of this opportunity and overcome the challenges to the way they operate, deliver services and compete with each other using online services. (Chan & Lu, 2004). Boyer et al., (2002) have defined online services as "the initial landing on the home page until the requested service has been completed or the final product has been delivered and is fit for use".

This paper addresses the factors affecting the use of e-service in albalqa applied university. The purpose of the paper is to explore the major factors affecting user's utilization and satisfaction of e-services offered by Al-Balqa Applied University. It explain the main factors based on a review of the development of e-service quality dimension. It proposes five -dimension scale for measuring e-service satisfaction: Reliability; Responsiveness; Information quality; Usability; and Security from the user's perspective. The remaining sections of this paper are arranged in the following manner.

The introduction presented in section 1, the literature review of e-service quality including the concept and factors affecting on e-service, models used in measuring eservice quality, and related studies in section 2. The research model is presented in section 3. The research methodology is discussed in section 4, including detailed information on the Measures,

Sample, and analysis performed in this study; this is followed by a data analysis and results discussed in section 5. Conclusion is discussed in section 6.

2. Literature Review

This section briefly discusses a review of researches relevant to the present study. The study of Waleed Al-Ghaith and et al(2010) based on the diffusion of innovations (DOI) theory leveraged into the online environment, investigates factors that influence adoption and usage of e-service, especially, in Saudi Arabia. Factors were empirically tested against data collected from 651 participants using survey questionnaires. Perceived Complexity was found to be the most significantly related factor affecting e-service adoption in Saudi Arabia, followed in turn by Privacy and Compatibility. Quality of the Internet and its relative advantage also had a notable affect on e-service usage and adoption in Saudi Arabia.

Antonia Stefani & Michalis Xenos (2001) in their paper presents a model used for assessing the quality of e-commerce systems. The proposed model is used for the analysis of user-centered quality characteristics of e-commerce systems and has formed the basis for the creation of expert evaluation checklists and surveys on user perceived quality of e-commerce systems. The paper discusses quality assessment of e-commerce systems, following the ISO 9126 quality factors and emphasizing on the user-centered factors of functionality, usability, reliability and efficiency. The paper presents the decomposition of each of the aforementioned factors in specific characteristics of e-commerce systems, which leads to a hierarchical quality model comprising of three levels

Antonia Stefani and et al 2003 in there paper entitle *Modelling E-Commerce Systems' Quality with Belief Networks* focuses on quality aspects of e-commerce systems and proposes a method for modelling such systems based on Belief Networks. The paper discusses the theoretical background of the proposed model, as well practical issues arising from its application. The basic notation and concept of Belief Networks is briefly presented, while emphasis is placed on the model's structure and its usage. The presented model can be utilised for assessing the quality of e-commerce systems, as well as for aiding in quality assurance during the design and development phase of such systems.

Isabella Biscoglio and et al(2007) presents the main aspects of an ongoing project, aimed at defining a website independent valuation process as a part of the mission of a service-providing organization. The process uses as reference a quality model that is defined starting from existing proposals and general requirements for quality models. The problem of integrating human judgment and automation in the evaluation process is also introduced, and technical solutions, involving the use of experimental work, are discussed.

Alemayehu Molla This paper proposes a partial extension and respecification of the Delone and Maclean model of IS success to e-commerce systems. Customer Ecommerce Satisfaction (CES) is proposed as a dependent variable to e-commerce success and its relationships with e-commerce system quality, content quality, use, trust and support are defined and discussed. Further research into developing, validating and empirically testing the model is proposed.

Sandy Chon (2006) in his study, *An Empirical Study of Factors that Influence the Extent of Deployment of Electronic Commerce for Small- and Mediumsized Enterprises in Australia* Curtin University of Technology, try to present the perceptions and experiences of Electronic Commerce (EC) implementation in Australia. The study is investigated from the perspective of Small- and Medium-sized Enterprises (SMEs) and the framework of implementation is represented by the extent of deployment. Based on the sample of about 115 small businesses in Australia, this paper uses regression modelling to explore and establish the factors that are related to the extent of deployment in EC. A multiple regression analysis shows that seven factors: perceived relative advantage, trialability, observability, variety of information sources, communication amount, competitive pressure, and non-trading institutional influences, significantly influence the extent of EC deployment by SMEs in Australia. The results and interpretations have some implications for managers in determining the appropriateness of deploying EC strategies to achieve profitability and operational efficiency.

Mohammed Mufaddy Al-Kasasbeh, Subhasish Dasgupta and Abeer Hmoud AL-Faouri, in their paper entitled *Factors Affecting E-Service Satisfaction*, examined factors affecting user satisfaction with e-services, a questionnaire was distributed to a random sample of (615) students out of (5918) at Petra University in Jordan to explore their perceptions. Regression analysis was conducted to test the hypotheses. The results indicated that website design, navigation, and personalization were found to be predictors of e-service satisfaction. The results of this study provide a comprehensive set of implications for practitioners and researchers. This study showed how the website design, navigation, and personalization play a crucial role in the overall evaluation of e-service satisfaction. Management of universities need to be aware that a bad experience with website design, navigation, and personalization can affect satisfaction, if a student has a bad experience regarding interactivity, customization, or website design, then a student might make an overall e-service judgment even before a transaction can take place. If customers believe that an organization's website is hard to use, poorly designed, and doesn't take into consideration distinguished services for each user, then customers are likely to move to other organizations' websites.

Xiaoni Zhang and et al examined factors affecting user satisfaction with e-services, a survey was conducted using a questionnaire. The questionnaire was based partially on existing studies, and was validated by a panel of researchers and industry experts. More than 700 usable responses to the questionnaire were collected and analyzed. The results showed that user satisfaction with e-services is correlated with perceived convenience, users' skills and experiences, and perceived security.

Yong Zhao and Kenneth A. Frank in their paper entitled *FACTORS AFFECTING TECHNOLOGY USES IN SCHOOLS: AN ECOLOGICAL PERSPECTIVE* In this paper, they extend existing research on technology integration and diffusion of innovations by investigating relationships among the long list of factors that have already been identified to be related to school technology uses. In particular, they use the metaphor of an ecosystem to theoretically integrate and organize sets of factors that affect implementation of computer technology. They conducted a study of technology uses in 19 schools in four districts. Findings of this study suggest that the ecological perspective can be a powerful analytical framework for

understanding technology uses in schools. This perspective points out new directions for research and has significant policy and practical implications for implementing innovations to schools.

The study of Abdel Nasser H. Zaied, entitled *An E-Services Success Measurement Framework*, proposed a comprehensive, multidimensional framework of e-services success. It examined the validity of the proposed framework, a sample of 200 e-service users were asked to assess their perspectives towards e-service delivery in some Egyptian organizations. The results showed that the proposed framework is applicable and implementable in the eservices evaluation; it also shows that the proposed framework may assist decision makers and e-service system designers to consider different criteria and measures before committing to a particular choice of e-service or to evaluate any existing e-service system.

Masoud Pourkiani, Sanjar Salajeghe, Mehdi Bagheri *Identification of Success Factors in E-Service Delivery of commercial order registration in the government of Islamic Republic of Iran* The purpose of this thesis is to identify the success factors behind governmental eservice delivery from a citizen viewpoint. This research identifies and discusses three theoretical perspectives in approaching the research problem: IS and e-commerce success, success variables, and e-government success evaluation. A theoretical framework was developed to evaluate e-service delivery success. With study several disciplines (IS, e-commerce, and marketing), were made to develop a proposed success model for government e-services. Citizen satisfaction was proposed as a measure of e-government success, and its relationships were hypothesized with e-government system quality, information quality, e-service quality, perceived usefulness, perceived ease of use, and citizen trust. To test the proposed model, government e-order registration services in Iran was chosen as the application area, and a quantitative approach was deemed better suited to test the developed research model empirically. Correlation analysis was chosen as the statistical analysis techniques. The analytical results confirm most of the proposed relationships within the model.

Khaled Atallah Al-Tarawneh,(2012), in his study *Measuring E-Service Quality from the Customers' Perspective: An Empirical Study on Banking Services*. He evaluate e- service quality from the customers, perspective, and to examine the effect of e- service quality dimensions on customer's perception of banking e- service quality. Data was collected via self-administered questionnaire from random samples drawn from the population of customers using e-banking service in Amman. The constructs in this study were developed by using measurement scales adopted from prior studies. The instrument was evaluated for reliability and validity. Data were analyzed using SPSS. The results in this study indicate that Reliability; Responsiveness; Ease of use; Personalization; Security; and Website design have influence on customer's perception of e- service quality. This study and their results have several limitations and also indicate directions for further research.

Fadi Taher Qutaishat, investigate users' perceptions towards website quality and to identify the effect of this perception on their intention to use e-government services in Jordan. Data were collected using questionnaires distributed to citizens who were actual or potential users of

e-government services in Jordan. The collected data were analyzed using descriptive statistics and structural equation model (SEM) to test the study hypotheses using AMOS 16.0. The results from this study revealed that among the study's constructs (system quality, service quality and information quality respectively) had positively affected users' intention to use services provided by the e-government in Jordan. This indicated that designers of e-government websites should take into considerations these constructs when designing e-government websites because they affect users' intentions to use and consequently increase the success of e-government initiatives.

Yingwu Chen, Yan Liu, Changfeng Zhou(2007)in his study entitled, Web Service Success Factors from Users' Behavioral Perspective Proposes an intergraded model for the empirical examination of the users' intention and behavior for using web services. An electronic questionnaire is used to collect sample data. The results show that users' overall satisfaction, specifically explained by perceived usefulness and perceived service quality of web services, significantly affects their intention to use web services.

2.1 Al-Balqa' Applied University: an Overview

Al- Balqa' Applied University (BAU) was founded in 1997, a distinctive state university in the field of Bachelor and Associate degree Applied Education, at the capacity of 47,500 student distributed into 32,000 at the Bachelor degree program and 15,500 at the Associate degree program, BAU encompasses 19 government colleges distributed among the whole area of the kingdom, Karak University College (KUC) is one of the government colleges under the umbrella of BAU, it has 1402 students, 59 academic staff and 159 administrative staff.

2.2 E-services offered by BAU

The web site of BAU offers a variety of E-services that can be summarized as follows:

Table 1. Summary of E-services offered by BAU

Service	Type of Users
Online Registration	Students
Online Marks Query	Students
Online Exam System	Students
Personnel System	Academic and administrative
Library System	Academic and administrative
Medical Insurance System	Academic and administrative
Electronic Mail	Academic and administrative

2.3 Reasons of E-service usage

The reasons of using E-services differs upon the type of users who use this service, students use of E-services is compulsory, where academic and administrative staff usage is optional, the following table shows the reasons of using services as reported by respondents:

Table 2. Reasons of E-service usage

Reasons	Service	Type of Users
Registration	Online Registration	Students
Marks Query	Online Marks Query	Students
Exam System	Online Exam System	Students
Salary slips	Personnel System	Academic and administrative
Leaves and departures	Personnel System	Administrative
Read library books	Library System	Academic and administrative
Medical Insurance System	Medical Insurance System	Academic and administrative
E-mail	Electronic Mail	Academic and administrative

2.4 The Research Model

In this research, several factors are investigated to explore the major factors affecting user's utilization and satisfaction of e-services offered by Al-Balqa Applied University, those factors are: information quality, reliability, security, responsiveness and usability of web site as shown in figure 1.

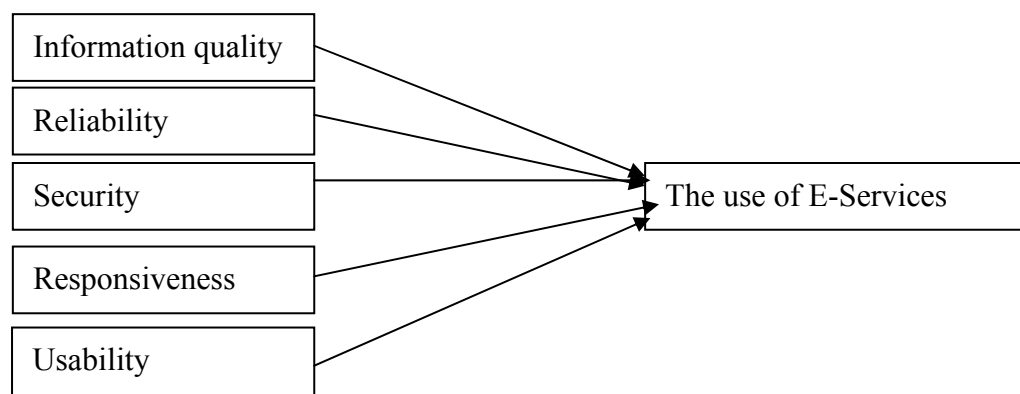


Figure 1. The Research Model

2.5 Research Hypotheses

Based on the research model, we will develop the following hypotheses:

H1: Information quality has a significant influence on e-service satisfaction.

H2: Reliability has a significant influence on e-service satisfaction.

H3: Security has a significant influence on e-service satisfaction.

H4: Responsiveness has a significant influence on e-service satisfaction.

H5: Usability has a significant influence on e-service satisfaction.

2.6 Research Variables and Measurement

Information Quality:-Information quality depicts how the user perceives the value of the output produced by a website. Information quality can be measured using informativeness and security. Informativeness of a website represents its ability to inform users about products or services alternatives. Security exemplifies the extent to which a user believes about the security of online financial transaction (Lin, 2007). Measuring e-service quality has been gaining and increasing importance; several studies conducted with the aim of developing measurement scales adapted to e-services quality field, researchers have identified a number of criteria that customers use in evaluating Web sites in general and service quality delivery through Web sites in particular. These include: information availability and content, ease of use or usability, privacy/security, graphic style, and reliability.

Reliability:-System availability refers to the correct technical function of the website. In eservice, the system availability makes online service offered by corporate website always accessible to the customers, which can help customers to have a good image of the corporate. If customers can not use the online system when they need online service, they will switch to some other online companies.

Security:- Privacy refers to the degree to which the website is safe and customer information is protected. This dimension holds an important position in eservice. Customers perceive significant risks in the virtual environment of eservice stemming from the possibility of improper use of their financial data and personal data.

Reliability: refers to the ability to perform the promised service accurately and consistently, including frequency of updating the web site, prompt reply to customer enquiries, and accuracy of online purchasing and billing.. four items were adopted from (Lee and Lin,2005; Van Riel et al.,2003; Swaid and Wigand,2009; Tih and Ennis, 2004),, which had a reported reliability coefficient of 0.72. The four items were: “This site performs the service right the first time,” “Services are provided when they are promised,” “This site doesn’t always live up to it promise,” and “You never know what is happening on this site.”

Responsiveness:- relates to flexibility, prompt delivery, consistency and accuracy of service delivered. Four items were adopted from (Madu and Madu, 2002; Swaid and Wigand, 2009; Surjadaja et al., 2003; Tan et al., 2003; Yoo and Donthu, 2001; Yang, 2003), which had a reported reliability coefficient of 0.74. The four items were: “This site handles product returns well,” “It tells me what to do if my transaction is not processed,” “It takes care of problems promptly,” and “Providing answers to your questions.”

Usability is defined as a set of attributes that bear on the effort needed for the use and on the individual assessment according to ISO 9126, usability’ s sub-characteristics are understandability, learnability and operability(Antonia Stefani & Michalis Xenos (2001).

3. Research methodology

In order to investigate the factors affecting the use of E-services in KUC, a survey instrument was developed to collect data in order to evaluate the model. The survey was conducted in

KUC. To test the research model shown in figure (1), we design a questionnaire to collect data. The survey questionnaire was designed on the basis of a comprehensive literature review refined via several runs of pretests and revisions. The sample consists of students and staff members in KUC (academic and administrative). Detailed data gathered on the sample from registration division and HR.

3.1 Constancy of the Instrument

Constancy factor was calculated according to (Cronbach Alpha) for internal correspondence of total formulation and for each variable with all dimensions. The questionnaire was distributed to (5) subjects outside of the sample, the results as shown in table (3).

Table 3. Value of internal correspondence for each variable (independent and dependent) with all dimensions

dimension	Cronach's alpha
Information Quality	0.83
Reliability	0.86
Security	0.86
Responsiveness	0.92
Usability	.84
Over all average	0.91

The table shows that constancy factors are high and valid for statistical analysis and scientific research.

3.2 Statistical Process

To answer questions about the study and test the validity of hypotheses. Descriptive Statistic Analytical methods (by using SPSS. 16) were used.

1. Descriptive Statssts Measures were used to answer the question of the study and to organize the dimensions downwardly as well as to describe the characteristics of the sample by using percentages.
2. Multible Regression Analysis was used in order to test the validity of the study and the effect of the independent variable and its dimensions in the dependent variable and its dimeminssions.
3. Analysis of test T. (One Sample Test) to test the impact of the independent variable on the dependent variable.
4. Stepwise Multiple Regression Analysis was used for using the independent variables in predicting equation of dependent variable.

5. Variance inflation Factor (VIF) and Tolerance were used for insuring that there is no high correlation between the independent variables.

6. Skewness was used in order to insure that data follows the normal distribution.

3.3 Instrument Validity

The validity of the questionnaires was constructed by reviewing each of its questions by the supervisor and professional doctors at Jordanian Universities.

To verify the validity of the paragraphs of questionnaires, remarkable amendments have been made to reformulate some of the paragraphs, and the required adjustments. The results were achieved accurately to maintain a balance between the contents of questionnaires and its paragraphs. The following checklist was used to review the questionnaire instrument:

- Will the words be uniformly understood?
- Do the questions contain abbreviations or unconventional phrases?
- Are the questions too vague?
- Is the question too precise, biased or objectionable?
- Is it a double-barrel question?
- Does it have a double negative?
- Are the answer choices mutually exclusive?
- Has too much knowledge been assumed?
- Is the question technically accurate?
- Are the questions too cryptic?

3.4 Research Assumptions

To ignore any other influential factors, which may affect the results of this study, the following can be assumed as research assumptions:

- 1-The selected sample was assumed to be a suitable representation of the study population.
- 2- The respondents was assumed understand every question in the study tool, and answered precisely and honestly.
- 3-The instrument and statistical techniques were effective, valid, and suitable for this kind of studies.

4. Data analysis and discussion

4.1 Distribution of respondents

The study population consists of students and staff members distributed as follows:

Table 4. Distribution of respondents

	Frequency	Percentage
Student	432	74%
Academic staff	48	8%
Administrative staff	102	18%
Total	582	100%

74% of respondents were students, 8% were academic staff members and 18% were administrative staff members, the majority of respondents were students because they constitute the majority of KUC community.

4.2 Variables analysis

This section summarizes the descriptive analysis and findings regarding the survey responses as follow:-

Table 5. Analysis of test results T. (One Sample Test) to test the impact of Information Quality On user perception toward e-services

Information Quality	Mean	Std	Rank	Severity
Understandable	4.57	.71	4	high
Timely	4.68	.63	2	high
Accurate	4.62	.73	3	high
Relevant	4.71	.56	1	high
Detailed	3.52	0.89	5	high
Overall average	4.42	.42	-	

Table (5) showed that the overall average came highly, it reached (4.69). The standard deviation was (0.42), which indicates that the perception of users toward e-services in (kuc) was high.

The paragraph (4), which states, "Understandable," occupied first rank with average (4.71), and the standard deviation (0.56). this shows the importance of this dimension of any new system in the university, while paragraph (2) " Timely " occupied second rank , with average (4.68), and the standard deviation (0.63), where dimension Accurate came in third with average (4.62), the dimension(Understandable) came in fourth place with average (4.57),while dimension(Detailed) came in last rank with average (3.52). This shows that these dimensions play good role in adopt e-services in a university.

Table 6. Analysis of test results T. (One Sample Test) to test the impact of Reliability On user perception toward e-services

Reliability	Mean	Std	Rank	Severity
maturity	4.82	.42	1	high
recoverability	4.57	.71	3	high
fault tolerance	4.68	.63	2	High
Overall average	4.69	.42		

Table (6) explicates that the respondents' perceptions level toward e-services play a major role, it has been of a high level with average (4.69), the standard deviation (0.42). Thus, it indicates that the above attributes in a university has been of a high degree, so, the first paragraph (maturity) occupied first rank with average (4.82), followed by paragraphs (fault tolerance) with average (4.68), while paragraph (recoverability) came in third rank with average (4.57).

Table 7. Analysis of test results T. (One Sample Test) to test the impact of Security On user perception toward e-services

Security	Mean	Std	Rank	Severity
Using credentials	4.65	.53	1	high
confirmation	4.46	.60	2	high
Available all time	4.31	.73	3	High
authentication	4.26	.83	6	High
Overall average	4.42	0.56		

Table (7) elucidates that the overall average impact of Security attribute in satisfaction of e-services have been of a high degree. Many respondents agreed with the statement that (Using credentials) is a possible reason which might have motivated the users to use the university site. It occupied first rank with average (4.65); followed by dimension (confirmation) with average (4.46), where dimension (Available all time) came in the third level with average (4.31), finally authentication came in the last rank with average (4.26). This showed us that the users have a positive impression toward adopt and use e-services, through various services that are provided to the user.

Table 8. Analysis of test results T. (One Sample Test) to test the impact of Responsiveness On user perception toward e-services.

Responsiveness	Mean	Std	Rank	Severity
Web site don't crash often	4.56	.71	3	high
Simple and easy to navigate	4.66	.49	2	high
Quick response to clicks	4.68	.55	1	high
Loads quickly	4.39	.83	4	high
Overall average	4.57	.64	-	

Table (8) indicates that the factor Responsiveness in the university is high (4.57), the standard deviation (0.64). It indicates that user satisfaction toward e-services have been of a high degree. The paragraph (Quick response to clicks) attained high ratio with average (4.68), followed by paragraph (Simple and easy to navigate) with average (4.66), while paragraph (Web site don't crash often) came in the third rank with average (4.56). Finally paragraph (Loads quickly) came in the last level with average (4.39).

Table 9. Analysis of test results T. (One Sample Test) to test the impact of Usability On user perception toward e-services

Usability	Mean	Std	Rank	Severity
Easy to navigate	4.65	.53	1	high
Understandable	4.46	.60	2	high
learnability	4.31	.73	4	high
operability	4.31	.75	3	high
attractive	4.30	.71	5	high
Provide help function	4.26	.83	6	high
Overall average	4.38	.54		

Table (9) clarifies that the overall average of the impact of Usability on e-services is high, it reached a high level with average (4.38), the standard deviation (0.54), which indicates that this attribute have been of a high degree. The paragraphs are being arranged as follow, the first one is (Easy to navigate) it occupied the first rank with average (4.65), followed by paragraph (Understandable) with average (4.46). The paragraph (learnability) came in third level with average (4.31), while paragraph (operability) came in fourth place with average (4.31). Where the paragraph (attractive) came in fifth level. The final paragraph is (Provide help function) came in last rank with average (4.26).

4.3 Testing Hypotheses

Before applying regression analysis to test the hypothesis, some tests was conducted in order to ensure the appropriateness of data to assumptions regression analysis as follows:

Regarding the assumption that there should be high link between the independent variables "Multi-Collinearity" the researcher conducting variance Inflation Factor-VIF ", and test "Tolerance "for each variable of the independent variables; If variance Inflation Factor (VIF) of the variable exceed (10) and the value of the allowed variance less than (0.05), it could be argued that this variable has high correlation with the other independent variables and thus would lead to a problem in regression analysis. Have been relying on this rule to test multiple linear correlation "Multicollinearity" between the independent variables, and table (10) shows that.

Table 10. Variance Inflation Factor-VIF, Multicollinearity and Skewness

Variables	Tolerance	(VIF)	Skewness
Information Quality	0.614	1.629	-0.784
Reliability	0.473	2.113	-0.965
Security	0.629	1.590	-0.699
Responsiveness	0.578	1.61	-0.814
Usability	0.631	1.62	-0.793

The table (10) contains the independent variables and the value of (VIF) and "Tolerance" for each variable. The value (VIF) for all variables were less than (10) ,and range (1.590 -2.113) ,also shows that the value of "Tolerance" for all variables were bigger than (0.05) ,and range (0.473 - 0.629). Therefore we can say that there is no real problem related to the presence of a high correlation between the independent variables. In order to investigate the assumption normal distribution of the data has been invoked to calculate the value (Skewness) of variables, as shown in Table (10), the value of skewness to all variables of the study were less than (1) Therefore we can say that there is no real problem related to the normal distribution to the study data.

H1: Information quality has a significant influence on e-service satisfaction.

Table 11. Results of Multiple Regression Analysis of variance

Independent variable	source	R ²	Squares sum	Freeness degrees	Squares mean	(F) Value	Sig
Ease of use	regression	0.714	1203.845	3	401.282	100.614	.000
	error		482.587	121	3.988		
	Overall		1686.432	124			

It seen from the table (11) that the independent variables explain the amount (71.4%) of the variance, which demonstrates the existence of the effect of the independent variables in the

dependent variable, so based on the validity of the model the hypotheses can be tested using multiple regression analysis. Thus, the researcher has noticed that the value of (f) were calculated at the level of $(0.05 \geq \alpha)$, and therefore we accept the alternative hypothesis, which provides that e-commerce influences positively on the reduction of market pressures and economic pressures in small and medium enterprises in Jordan.

H2: Reliability has a significant influence on e-service satisfaction.

Table 12. Results of Multiple Regression Analysis of variance

Independent variable	source	R ²	Squares sum	Freeness degrees	Squares mean	(F) Value	Sig
Ease of use	regression	0.102	172.170	3	172.170	13.985	.000
	error		1514.262	121	12.311		
	Overall		1686.432	124			

It appears from the table (12) that there is effect of reliability on the ease of use, this dimension interpreted (10.2%) of the ease of use and users satisfaction of the e-services, the value of (f) = 13.985, and this value is statistically significant at the significance level ($\alpha \leq 0.05$), and therefore we reject the null hypothesis and accept the alternative hypothesis that the presence of a statistically significant effect of the Reliability dimension on the ease of use e-services.

H3: Security has a significant influence on e-service satisfaction.

Table 13. Results of Multiple Regression Analysis of variance

Independent variable	source	R ²	Squares sum	Freeness degrees	Squares mean	(F) Value	g
Ease of use	regression	0.330	181.120	3	556.008	60.499	.000
	error		1130.424	121	9.190		
	Overall		1686.432	124			

Table (13) elucidates that the overall average impact of the dissemination security on the ease of use is high, this dimension interpreted (33%) of the ease of use and users satisfaction of

e-services, the value of $(f) = 60.499$, the researcher in this study has opined that all values of (f) were calculated at the level of $(\alpha \geq 0.05)$. Therefore we reject the null hypothesis and accept the alternative hypothesis which provides that security attributes has a positive impact in the ease use of e-services in a university

H4: Responsiveness has a significant influence on e-service satisfaction.

Table 14. Results of Multiple Regression Analysis of variance.

Independent variable	source	R ²	Squares sum	Freeness degrees	Squares mean	(F) Value	Sig
Ease of use	regression	0.698	1176.839	3	1176.839	284.053	.000
	error		509.593	121	4.143		
	Overall		1686.432	124			

As table (5.19) showed us that there is impact of the dimension responsiveness on the ease of use, this dimension interpreted (33%) of the ease of use and users satisfaction of e-services, It has been found that $(F = 284.053)$ and $(0.000 = \alpha)$ and this is a moral result at the level of significance $(0.05 = \alpha)$. So this requires reject the null hypothesis and accept the alternative hypothesis. Which provides that Responsiveness attributes has a positive impact in the ease use of e-services in a university

H5: Usability has a significant influence on e-service satisfaction.

Table 15. Results of Multiple Regression Analysis of variance

Independent variable	source	R ²	Squares sum	Freeness degrees	Squares mean	(F) Value	
Ease of use	regression	0.548	1176.839	3	1176.839	100.020	.000
	error		1514.262	121	3.819		
	Overall		1686.432	124			

Table (15) indicates that the impact of the usability dimension on the ease of use, this dimension interpreted (54%) of the ease of use and users satisfaction of e-services, the value of $(f) = 100.020$, the researcher in this study has opined that all values of (f) were calculated at the level of $(\alpha \geq 0.05)$. Therefore we reject the null hypothesis and accept the alternative

hypothesis which provides that usability dimension has a positive impact in the ease use of e-services in a university.

5. The research findings and discussion

The results indicated that there is positive users' perceptions towards the constructs' variables used in this study where reliability variable scored the highest mean and usability scored the least mean (see table 2).

According to the results of this study, it was revealed that the information quality variables that including understandable, timely, accurate, relevant, and and detailed, affected the satisfaction of e-services that the university offer. Relevant had a higher impact on the ease of use of e-services. This implies that this factor is a significant aspect of website that increases the level of users' engagement and subsequently increases the intention to use online services (Fadi Taher Qutaishat 2013). Teo et al. (2003) suggested that inducing an optimized level of interactivity to a website design enhances the user's perceived satisfaction, effectiveness, efficiency, value and overall attitude towards the use of the website.

The study also showed that the variables recoverability, maturity and recoverability positively influenced the user's satisfaction of e-services. Among the variables, maturity had the strongest effect on perception toward use e-services. This result is consistent with (*Antonia Stefani & Michalis Xenos*, 2001),and (*khaled Atallah Al-Tarawneh*, 2012),they found that reliability was a significant determinant of 'users' perception toward ease of use of e-services and affected the adoption and using of e- services in the auniversity. Despite that the recoverability and fault tolerance variables had lower effect in comparison with maturity, but they still had significant effect on the satisfaction to use e- services.

In this sense, it is evident that security and responsiveness are still significant factors that should be reflected in the design of university website to increase user' intent to use e- services.

Finally, the usability, including easy to navigate, understandable, learnability, operability, attractive, and provide help function, all these variables positively influenced the intention and satisfaction to use e-services. The result implies that users of e- services need clear, complete and up-to-date information about the services offered on a university website. This result is consistent with research from the domain of quality of websites. For instance, *Khaled Atallah Al-Tarawneh*,(2012) indicate that Reliability; Responsiveness; Ease of use; Personalization; Security; and Website design have influence on customer's perception of e- service quality.And suggested that providing consumers with up-to-date and clear information about products/services increases the level of consumers' attraction. With regards to security, the result of this study showed that security was also a significant factor that affected users' satisfaction to use e- services. *Khaled Al-Tarawneh*,(2012 and *fadi qutishat* 2013 and *Waleed Al-Ghaith and et al*(2010) identified that securing online transaction plays a significant role in influencing users attitudes towards online services .

6. Conclusion

Users perceived e-service is one of the critical determinants of the success of online business (Yang et al. 2004). Accordingly, there is a rise of research on the construct of e-service quality. The aim of this article was to explore the major factors affecting user's utilization and satisfaction of e-services offered by al-balqa applied university, finding that a combination of five dimensions relating to reliability, responsiveness, information quality, security, and usability, best represents the measurement of e-service quality within al-balqa applied university. Based on the findings of this study the results indicated that E-service quality was directly associated with users perceived service quality.

Accordingly, Significance testing was used in the analysis of each of the hypotheses. The purpose of these hypotheses was to identify the effect of information quality, reliability, security, responsiveness, and usability on the ease of use of e-service. The researcher found significant statistical support for these hypothesis that a majority of respondents agreed with the statement that (these dimensions) are a possible reason which might have motivated the organization to evaluate the website, for example The respondent appeared to be an aware of how website can be used to enhance the operations, improve lead times, improve business processes, improve the relations with business partners, and enhance our distribution process. Findings provided evidence that e- service quality dimensions were influential on user perceived service quality.

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