

Impact of Electronic Service Quality on Customers Satisfaction of Islamic Banks in Jordan

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Abstract *The study aimed to study impact of Electronic Service Quality on Customers Satisfaction of Islamic Banks in Jordan. The Electronic Service Quality represented by (Reliability, Ease of use, Effectiveness, Web Site Design, privacy, and Responsiveness). The population of the study consisted customers of Islamic banks in the North territory of Jordan (Jordanian Islamic Bank, International Arab Islamic Bank), a random sample was taken amounted (300) participants, SPSS was used to examine the study hypotheses and achieve its objectives. The researcher found that there is statistical significant impact of the Electronic Service Quality (Ease of use, Web Site Design, privacy, and Responsiveness) on Customers Satisfaction of Islamic Banks in Jordan. Regarding the dimensions of reliability and effectiveness, the study indicates that they had insignificant impact on Customers Satisfaction. The researcher recommended the use of specialists in the field of electronic sites design in particular, because the site attractiveness needs experience sufficient experience in this area to support its attractiveness for customers, and to benefit from the experiences of the developed countries in the field of software technology control and protection of customer information, in order to strengthen current Software application to those banks.*

Key words Electronic Service Quality, customers satisfaction, Islamic Banks in Jordan

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1. Introduction

In light of the rapid development of information and communication technology in the world of Economics and business, which living a dynamic situation dominated all spheres of life and indispensable, competitive conflict made it necessary to keep up with the giant global institutions in an environment of technology that melted spatial and temporal boundaries, which facilitated trade among countries in various sectors, the digital revolution that was changed from traditional marketing practices, and contributed to the improvement of marketing activities, and the exploitation of the opportunities and challenges, information and communications technology became the fundamental criterion which is measured by the degree of progress of nations in the twenty-first century.

Past years have witnessed widespread if internet network and it became possible for direct interaction from anywhere and anytime at low cost, global market transformed towards concrete market to market. cognitive explosion was the reason for many websites and online services, it became necessary attention to electronic service quality in the light of global competitiveness so stay for the best, e-service quality make buy and sell through website easier, and deliver the services and products with high efficiency, and is also the navigation efficiency, and increase the size of the data and information provided to the customer.

Electronic service quality concept is still new and controversial among in the field of marketing services for the difficulty in measuring the quality of service, because they are things that are difficult for consumer to evaluate compared to goods, prior to 1985, there were only a limited number of studies on the quality of service concepts and its dimensions without address and evaluate methods of measurement, where attributed the first attempt to measure the quality of service to Parasuraman and others, regarding the electronic service quality, e-marketing literature lacked clear concepts (AlHawary and Toahir, 2012),

where electronic services have reduced direct contribution of the human component of the self service to customers, and the absence of physical evidence which usually exist in traditional services, measurement process of electronic services quality is one of modern topics that are still at the stage of building standards to form a reliable model.

Customer satisfaction plays an important role in the success of business strategies (Gil and Cervera, 2008); customer satisfaction helps keep customers from request service or product from competitors (Fawcell and Sewnson, 1998). Customer satisfaction helps organizations and businesses to increase their return and achieve competitive advantage (Lewin, 2009), in addition to customer satisfaction leads to long term profits by making the customer loyal to the Organization (Jochen, 2003), so customer satisfaction stems from recognizing companies that they have to interact with changing environment consistent with the behavior of customers to maintain the survival and continuity of firms in competitive markets (Smith, 1996). In this digital age, interest has increased in financial services over the past few years that require development and modernization, which became a major challenge for marketers and academics alike, prompting banks to seek to improve their electronic services offered to customers in order to maintain current customers, and trying to attract new customers, and even to make banks able to be distinguished in providing its services, they must keep pace with technology.

Islamic banks have evolved dramatically in recent times, which operates under Islamic principles, that were adopted to outlaw Islam because usury basically and cancel the interest system. Islamic banks also seeks in Jordan to provide distinct electronic banking services, developed and improved, and invent new services in accordance with Islamic principles and values, and meet the expectations of customers by reviewing quality objectives in accordance with the requirements of international standards.

The importance of the study stems from being a vital and important topic in Banking marketing, which is one of the basic pillars of electronic services quality, that help Islamic banks in the possession of the customer attention and attract them to deal with them to achieve satisfaction, and increase profitability and gain new market share in line with Islamic principles. It also contributes to provide data base of customer assessment for electronic service quality provided to them that help banks improve and develop those services, to enhance their competitive position. So the study aims to identify the impact of electronic service quality dimensions (reliability, ease of use, efficiency, Privacy, website design and responsiveness) on customer satisfaction of Islamic banks in Northern Territory in Jordan.

2. Literature review and theoretical framework

2.1. Electronic service quality

With continuing competition in the market, the quality of service has become essential to maintain competitive advantage (Zeithaml *et al.*, 2000b) plus it is urgent and necessary to establish and maintain customer satisfaction (Khan, 2007). According to Al-Mansour (2003), service quality is the entrance key to TQM, total quality system should focus on customer satisfaction and meet their expectations. In the current era, developments in services related to the wireless revolution, this revolution has reduced the direct connection between service providers and customers (Idris, 2006), which led to the emergence of electronic service as corporate strategies especially in e-commerce activities. Electronic service differ from traditional service through other channels of communication with customers (Javadi, 2011) so that modern technology transferred business processes to achieve more accuracy, speed and protection (Zhang and Prybutok, 2005), to meet the needs of existing customers, achieve satisfaction and attract new customers with newer types of technology available.

Jordan's Islamic banks started to realize the importance of banking service quality (Moualla, 1998) where service quality is widely used to evaluate the performance of banking services. As a result of the unreasonable development in Internet, which have changed the ways banks communicate with customers and customer became able to get more information over the day (Wang and Wang, 2006).

2.2. Electronic service concept

As a result of living in an age of information technology (Mahmood, 2013; Marchica, 2004) and with the rapid growth of electronic commerce, and development of technology-based systems (Akinyele and Akinyele, 2008) there are two competing worlds: the visible physical world, and the electronic world of

information (Rayport and Sviokla, 1995), and from here emerged and developed the concept of websites due to the rapid expansion of the Internet, and Internet-based services began to emerge which changed the way companies interact with consumers (Herington and Weaven, 2009) which led many organizations to reconsider their strategies and using the most appropriate and flexible methods in service and product delivery along with conventional methods (Brich and Young, 1997), and in turn led to the emergence of electronic service (Cabello and Kumar, 2006), and became the modern trend of organizations is moving from traditional services to e-services.

Electronic service is defined as delivering all interactive services via the Internet, and the use of advanced communications and information and multimedia technology (Boyers *et al.*, 2002). Lemo and Rust (2001) defined electronic service as information service, while electronic service defined as a set of bushiness done through information and communications technology (Rowley, 2006).

Electronic service is provided via a mobile phone, Internet, and self service centers, electronic service includes several elements, which are electronic retail, customer support; service itself, and service delivery (Akinyele and Olorunleke, 2010). The importance of electronic service as strong source of competitive differentiation through customer involved in product development process through quick feedback and enhance customer relationships, in addition to the e-service help get services at lower cost, as it achieve excellence in quality (DeRuyter *et al.*, 2001).

Electronic service enables companies to exceed the expectations of customers, and go beyond traditional consumer service, which helps these companies to invest for the long term by promoting the growth of customers, and keep customers in case of company loyalty (Lake and Hickey, 2002). As a result, the uses of technology in customer service are important for access to the most basic survival goals of organization (Wilson, 2004; Mahmood, 2013).

Electronic service is a self-service (Surjadaja *et al.*, 2003; Gera, 2011) instead of access to service by speaking to an employee over the phone or from behind the desk, the service is obtained through mechanical interaction and mutual between the applicant and machine (Wetwahir, 2012), and noticed that there are some challenges to electronic service providers since there is no direct contact between staff and customers, and consequently, the website became the basis for interaction between customers and organizations (Fadeleh, 2010) electronic service must therefore meet customer's desires, and to be more responsive to his expectations (Al-Alaq, 2004).

Van Riel *et al.* (2001) added two key elements: the Complementary service, and e-services through the client can access the services provided by the company (User Interface), extended services have the capability to add value to the central service, by contrast, the complementary service are separate products don't add value to the central service (Szymanski and His, 2000) so the central service, support and complement can be referred by the next question. What is the service that the customer receives? (Type of service), while facilitating services can refer to the following question: how is the service delivered to the customer? (Anderson and Narus, 1995)

Table 1. Definitions of service quality

Researcher	Definition
Al-lawzy (2010)	Web applications built on networks of websites to enhance access and communicate information efficiently and effectively
Rowley (2006)	Business are made through information and communication technology
Evanschitzky (2007)	Set of services that can be delivered electronically and provide customers with low-cost service and less time
Riedl <i>et al.</i> (2009)	Provide services to customers through mobile phone, Internet, and self service centers

2.3. Concept of electronic service quality

The concept of electronic service quality is recent, and there is controversy among researchers about this concept in the field of marketing services (Wetwahir, 2012). The concept of electronic service quality defined based on Internet marketing research and quality of service as ' traditional evaluation by customers of excellence and electronic service offers in virtual market (Santos, 2003). Electronic service quality can be

understood as evaluating efficiency and effectiveness of Internet commerce, purchase and delivery of a product or service (Wang and Wang, 2006). To provide quality service, managers must know how customers evaluate and perceive electronic service (Parasuraman *et al.*, 2005), the electronic service quality helps companies in such strategic profits by keeping customers for a long time (Zeithaml, 2000), and was previously for customer satisfaction (Wang and Wang, 2006).

Electronic service quality featured by the ability to be used in case of any problems with the central service, it is a remedial service to solve problems when you need any help. Although there are many dimensions published in researches, while electronic service quality is Un-dimensional. It is noted that the readiness of the technology has an impact on realization of electronic service quality and customer satisfaction and on the procurement process and decision making (Zeithaml *et al.*, 2002).

Table 2. Definitions of electronic service quality

Researcher	Definition
Parasuraman <i>et al.</i> (2005)	Customer interaction with the website in all situations (shopping, purchasing, and delivery)
Santos (2003)	Evaluation and overall governance for customers with the excellence in electronic service offerings in the market.
Zeithaml <i>et al.</i> 2000	To what extent website will facilitate buying and selling and deliver the services and products efficiently and effectively.
Praeg and Spath (2010)	Ability to navigate the Web in addition to increasing the size of the data and information needed by the customer.
Collier and Bienstock (2006)	Customer perceptions of the results of the service and its ability to solve problems.

2.4. Dimensions of Electronic service quality

There are many dimensions of electronic service quality measurement used in many research examples: reliability, responsiveness, accessibility, credibility, safety, ease of use, efficiency, privacy, security, navigation and website design. The below table shows a set of studies, and the dimensions of electronic service quality used by researchers.

Table 3. Dimensions of electronic service quality

Researcher	Dimensions
Meuter <i>et al.</i> , 2000	(Efficiency), (Flexibility), (Convenience), (Security), (Impersonalization)
Cox and Dale, 2002	(Customer Confidence), (Ease of Use), (Relationship Services), (Online Resources)
Lee and Lin, 2005	(Website Design), (Reliability), (Responsiveness), (Trust), (Personalization)
Zeithaml <i>et al.</i> , 2002	(Information Availability), (Content), (Privacy), (Security), (Website Graphic Style), (Usability), (Fulfillment)
Yang <i>et al.</i> , 2004	(Reliability), (Access), (Ease of Use), (Attentiveness), (Security), (Credibility)
Madu and Madu, 2002	(Performance), (Features), (Structure), (Aesthetics), (Reliability), (Storage Capacity), (Serviceability), (Security), (System Integrity), (Trust), (Responsiveness), (Service), (Differentiation), (Customization), (Web Store Policies), (Reputation), (Assurance)
Long and McMellon, 2004	(Tangibility), (Reliability), (Responsiveness), (Assurance), (Empathy), (Communication)
Parasuraman <i>et al.</i> , 2005	(Efficiency), (Reliability), (Performance), (Privacy), (Trust), (Personalization)
Nubur, 2010	(Reliability), (Responsiveness), (Security), (Empathy), (Tangibility)
Swaid and Wigand, 2009	(Information Quality), (Ease of Use), (Reliability), (Responsiveness), (security), (Personalization)
Iliachenko, 2006	(Reliability), (Credibility), (Responsiveness), (Efficiency), (Tangibility), (Communication)

Based on previous studies, the following dimensions were used in this study: Reliability, and Ease of Use, and Efficiency, Website Design, Privacy, Responsiveness.

Reliability: Reliability is the first determinant of customer satisfaction, and the second determinant of customer loyalty to the website (Zeithaml *et al.*, 2002). Reliability is defined as a service-based capability to provide customers with confidence and high resolution (Sung *et al.*, 2009). To achieve reliability, companies

must provide service as promised by the company and reliably (Al-Dmour, 2005). It include the correct technical recruitment of the website and precision in obligations and promises of service (delivery of customer orders, delivery time, advertising, and product information) (Parasuraman *et al.*, 2005), plus the correct completion of the request, and direct delivery of applications, and the accuracy of the advertising (Yang *et al.*, 2004).

Reliability measured by providing website permanently and right action (Gerrard and Barton, 2005). Reliability refer to the company's ability to deliver quality of information which matches the criteria of timeliness, accuracy, understandability, relevance, in addition to its ability to fulfill pledges to the customer thereby achieving a high level of satisfaction (Swaid and Wigand, 2007).

Table 4. Definitions of reliability

Researcher	Definition
Sung <i>et al.</i> (2009)	The service provider's ability to provide beneficiaries with confidence and high fidelity.
Zeithaml <i>et al.</i> (2000)	Website must be easy to use and organized properly, and requires a minimum of information that answer customer technical recruitment
Parasuraman <i>et al.</i> (2005)	Correct Interventions for website and the accuracy of the service offered by the company.
Yang <i>et al.</i> (2004)	Reliability includes correct completion of the request and accurate advertisement.
Al-Dmour (2005)	The ability to provide service as promised by the organization with high degree of speed and accuracy.

Ease of use: Ease of website use is the most important elements that make customers repeat using the website (Madu and Madu, 2002). Ease of use may be defined as 'anticipating expected customer that he does not need to use system a great effort' (Zeithaml *et al.*, 2002)

Ease of use consists many factors such as: (Website Structure), (Ease of Navigation) (Shang, Chen and Shen, 2004), clarity of orders, action steps, enters the facilities with the query; in addition to customer satisfaction on how modify the query (Griffiths and Brophy, 2005).

Ease of use is linked to easily remember the Web address (URL) and the website must be complex and well organized (Yang *et al.*, 2004). Ease of Navigation helps customers to get what they want without difficulty because having good search engine leading to navigate between pages quickly and easily (Zeithaml *et al.*, 2000).

Table 5. Definitions of ease of use

Researchers	Definitions
Fassnacht and Koese (2006)	Easy of using by customers, including searches and scans.
Zeithaml <i>et al.</i> (2002)	anticipating expected customer that he does not need to use system a great effort
Yang <i>et al.</i> (2004)	Usability connected easily remember of website address (URL) and that the location is well organized, and well-constructed, easy to follow instructions and the ability to browse and navigate pages easily, and the contents of the website should be comprehensible and concise terms.
Bresselles and Durrieu (2008)	The applicability of interacting with the website and easily navigates and organizes well.
Davis (1989)	How far the customer thinks that using a particular system won't need to effortlessly use.

Efficiency: Efficiency may be define as customer's ability to accessing and using this website quickly and easily (Mummalaneni and Meng, 2009) and to be efficient site should be easy to use and designed in a proper manner and appropriate (Parasuraman, 2005), as must be organized well and doesn't need a lot of information to answer customer interventions (Zeithaml *et al.*, 2000), and the traditional service efficiency vary from electronic service efficiency, as efficient traditional service related to skill and ability of the service provider and his knowledge, and merit that help them to perform their task properly (Al-Dmour, 2005).

Table 6. Definitions of efficiency

Researchers	Definitions
Parasuraman <i>et al.</i> (2005)	The website is easy to use and properly constructed and suitable, and needs less information about customers to use the website.
Zeithaml <i>et al.</i> (2000)	The website easy to use and organized properly, and requires a minimum of information that answer customer interventions.
Mummalaneni and Meng (2009)	The ability of customers to access and use the website quickly and easily.
Al-Dmour (2005)	The ability to easily access the website, the ease of use, and access to information associated with the requested service.

Website design: Website design is an influencing dimension on buyers customer perceptions (Zeithaml *et al.*, 2002), and the website design defined as providing customers with information in a fun way and have a distinctive and attractive website design (Bresselles *et al.*, 2008).

Numerous studies have shown that Web design includes Website Appearance, and Visual design (Shang *et al.*, 2004), and according to Bauer *et al.* (2006) the website design is to design in an aesthetic attributes and content and features. To assess the standards of aesthetic appearances on website, one must question about types, sizes, and clearly, wemkrueh texts (Madu and Madu, 2002), as well as for image clarity, quality and use appropriate visuals from the website

Privacy: Privacy is one of the essential attributes of the dimensions of electronic service quality appears confidence to the user to make online transactions (Zeithaml *et al.*, 2002), Iliachenko (2006) defines privacy as ' protect customers from fraud and protect their personal information '. And increase privacy by securing the website for customers of intervention and protection of their personal information (Zeithaml *et al.*, 2000). This dimension can be measured by assessing the degree of protection and maintain customer information of hack plus how customers feeling safe on their special information while dealing with the website (Sheng and Liu, 2010). The importance of privacy comes from the ability of internet services to deliver reliable and dependable to build confidence among customers (Madu and Madu, 2002).

Table 7. Definitions of privacy

Researchers	Definitions
Iliachenko (2006)	Protection of personal information, and protect users from the dangers of fraud and financial loss.
Sheng and liu (2010)	Protection and Province website on information concerning customers of penetration and how customers feel safe on their own while dealing with the website.
Parasuraman <i>et al.</i> (2005)	Site more secure and protect customer information.
Javadi (2011)	The degree to which the customer thinks that the website is safe from intrusion and that personal information is protected.
Liu <i>et al.</i> (2009)	Security level of customer's information and that the system is protected against unauthorized access might lead to alter or destroy information, software, or system materials theft.

Responsiveness: Garvin (1988) defines responsiveness in general as the ability to repair the product or modify service when problems occur, because the consumer does not have sufficient expertise for processing and repair . Responsiveness in traditional service centered around the ability of the service to answer customers questions, respond to them without errors in minutes plus immediate delivery to the customer (Zeithaml *et al.*, 2002), and electronic service responsiveness known as rapid response and get help in case of a problem or a question. In electronic service quality, responsiveness measures – the level of assistance received by the customer during the search, and when needed while using electronic service, in addition to measuring the extent of guidance and instructions for using electronic service and assistance when problems arise in the service (Griffiths and Brophy, 2005), in addition to the company's ability to provide a solution to the problems electronically (Iliachenko, 2006), responsiveness reflects the desire to help the customer, and it can be measured by the service availability on time, and to meet all requirements of customer, and to achieve a response quick service request (Al-Bakri, 2005).

Table 8. Definitions of Responsiveness

Researchers	Definitions
Griffiths and Brophy (2005)	The level of assistance available to customers through search, and at the point of need during use, and the availability of instructions and guidance through context sensitive assistance when you stop the service or mistakes in use .
Parasuraman <i>et al.</i> (2005)	Respond effectively to address the problems and return via the site
Swaid and Wigand, 2007	Provide assistance and providing customer service .
Iliachenko, 2006	The company's ability to provide a solution to problems.

2.5. Customer Satisfaction

No doubt that customer satisfaction is the key to success for organizations that strive to harmonize with the needs of their customers in time where competition has intensified and markets were packed and spread of modern technology and techniques that changed the picture dramatically, and reach customer satisfaction is not easy, Lodenius (2011) considers customer satisfaction concept difficult and contradictory because it is multidimensional, so several definitions for customer satisfaction.

Oliver (1999) defined customer satisfaction in a traditional manner that buying goods or services from the same brand by customers without being influenced by the surrounding environment or marketing methods, Tracey (1999) defined customer satisfaction as the degree to which the customer realizes that he has received a product or service worth more than the price he paid. Tracey definition (1996) shows that the value of the customer's perceived difference between assessing future customers for every interest and every cost offers and alternative performances (Kotler, 2000) because the future benefits include the total benefits (economic and social benefits) while costs include (price, time, effort, risk, and convenience) (Razavi and Safari, 2012). Kotler (2003) define customer satisfaction as 'sense of satisfaction when customers get what they expect from a service or commodity'. And defined again by Kotler and Keller (2006)' the customer feeling of joy after getting service or buy a product and this feeling caused by comparing the actual performance of the product or service and the expectations that the customer knows what.

2.6. Customer Satisfaction of electronic service

Customer satisfaction is more important in the case of electronic service because it's hard to maintain customers in the virtual world and get their loyalty (Zavareh *et al.*, 2012). Electronic satisfaction can be defined as ' the outcome of previous experience with the services provided by the website and allows this experience to assess the effectiveness of the distribution channel of the Web and determine how he satisfied about the website ' (Al-Hawari and Toaher, 2012).

The importance of customer satisfaction for e-service as a mission to achieve financial performance as it is possible customer loss if he could not access the website or if the website is unsatisfactory (Heskett *et al.*, 1994). In banks-where traditional electronic service — lack of direct interaction in Internet banks requires the need to test the role of technology for building electronic customer service (Schaupp and Belanger, 2005). Accordingly, the Bank must obtain information on how to satisfy the e-service customers and Internet banks.

2.7. Electronic service quality and Customer Satisfaction

Parasuramn *et al.* (1985) noted that receive the high quality service will lead to a rise in customer satisfaction, Palmer (2005) says that ' the distinction between quality and customer satisfaction is important for all managers and researchers alike where the service provider needs to know whether their goal should draw consumers satisfied with their performance or to deliver the highest level of quality service. Arguably, service quality and customer satisfaction have been instrumental in the success and continuation of work (Daniel and Berinyuy, 2010). Su *et al.* (2002) Emphasizes that there is a link between quality of service and customer satisfaction, customer satisfaction depends on the quality of service provided service by providers (Lee *et al.*, 2000). Tarawneh (2011) referred to an effect of electronic service quality collectively and individually on customer satisfaction.

Zavareh *et al.* (2012) referred that electronic service quality dimensions need to reinterpret especially when used in online banking service quality, in addition to a positive relationship between electronic service quality and customer satisfaction in online banking. Sheng and Liu (2010) found that efficiency; achieve privacy requirement have a positive impact on customer loyalty. Carlson and O'cass (2010) study results indicated that electronic service quality positively impact on consumer satisfaction and attitudes towards website, and behavior about a particular service provided by website with central content in the field of sports and professional services. Lee and Len (2005) referred that the dimensions of electronic service quality affects overall service quality and customer satisfaction, and customer satisfaction significantly associated with purchase intention, and customization dimension is not linked to overall service quality and customer satisfaction. Based on the above literature, the study hypotheses can be formulated as:

H1: There is a statistically significant effect of Electronic service quality on customer satisfaction of Islamic banks in Jordan.

More specifically:

(H1a): There is a statistically significant effect of Reliability on customer satisfaction of Islamic banks in Jordan.

(H1b): There is a statistically significant effect of Ease of Use on customer satisfaction of Islamic banks in Jordan.

(H1c): There is a statistically significant effect of Efficiency on customer satisfaction of Islamic banks in Jordan.

(H1d): There is a statistically significant effect of Website Design on customer satisfaction of Islamic banks in Jordan.

(H1e): There is a statistically significant effect of Privacy on customer satisfaction of Islamic banks in Jordan.

(H1f): There is a statistically significant effect of Responsiveness on customer satisfaction of Islamic banks in Jordan.

3. Research framework

Based on study hypothesis, the following theoretical framework, shown in Figure 1, was proposed in order to show the relationships among independent and dependent variables. We have argued that Electronic service quality the reason for improving customer satisfaction. As can be seen from the framework, the study investigates the impact of the Electronic service quality on customer satisfaction, where Electronic service quality are the independent variable and are positively related to customer satisfaction as the dependent variable. This relationship was used to develop the hypotheses for this study.

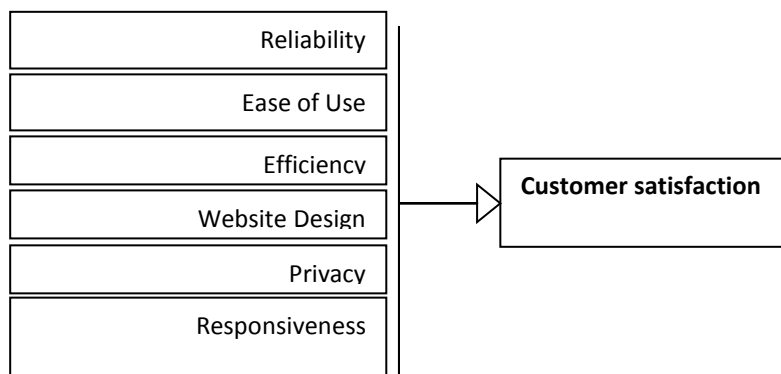


Figure 1. Theoretical Model

4. Methodology of research

In this section we discuss sample and data collection procedures, and study measures used in the study as well as the statistical tests used to examine the impact of the multidimensionality of Electronic service quality and customer satisfaction.

4.1. Data collection

Data are collected using a questionnaire. The questionnaire was divided into three sections: Section A consisted of a list of questions intended to probe the demographic variables of the respondents. Section B contained questions aimed at gauging the respondents' attitude toward Electronic service quality dimensions synthesized from previous studies of Loonam and O'Loughlin, 2008; Zavareh *et al.* 2012; Rolland and Freeman, 2010; Parasuraman, 2005; Stiakakis and Georgiadis, 2009; Herington and Weaven, 2009; Griffiths and Brophy, 2005. The following practices were focused on; Reliability (five statements), Ease of Use (five statements), Efficiency (four statements), Website Design (four statements), Privacy (four statements), Responsiveness (four statements). Section C is customer satisfaction adopted from previous studies of (Zavareh *et al.*, 2012; Herington and Weaven, 2009; Sheng and Liu, 2010), contained questions aimed at gauging the respondents' satisfaction of Electronic service quality provided by Islamic banks in Jordan, using a five-point Likert scale. A pretest was carried out with four marketing and production management professors to determine the validity of the content of the survey questionnaires. Next, a pilot study was carried out in three banks with 30 participants for evaluation. Each participant was requested to assess the survey questionnaires in terms of wordings, relevancy, and clarity. In the main survey study, a total of 208 of Islamic bank customers were randomly chosen. A cover letter was attached together with the survey questionnaire. The cover letter described the aim of the study, guaranteed anonymity of data, requested the respondent to answer each question, and seal and return the completed questionnaires using the attached envelope. An initial letter was sent and after 3 weeks, the follow up letters were then issued. Of the 300 questionnaires delivered to customers, 207 completed and usable survey questionnaires were returned.

4.2. Measures

The constructs in this study were developed by using measurement scales adopted from prior studies. Modifications were made to the scale to fit the purpose of the study. All constructs were measured using five-point likert scales with anchors strongly disagree (= 1) and strongly agree (= 5). All items were positively worded. Electronic service quality consists of: Reliability was adapted from study of (Loonam and O'Loughlin, 2008; Zavareh *et al.*, 2012; Rolland and Freeman, 2010; Parasuraman, 2005; Stiakakis and Georgiadis, 2009). Ease of Use was adapted from study of (Herington and Weaven, 2009; Zavareh *et al.*, 2012; Rolland and Freeman, 2010; Griffiths and Brophy, 2005). Efficiency was adapted from study of (Mummalaneni and Meng, 2009; Parasuraman, 2005). Website Design was adapted from study of (Zavareh *et al.*, 2012; Lee and Lin, 2005; (Bresselles *et al.*, 2008). Privacy was adapted from study of (Sheng and Liu, 2010; Yen and Lu, 2008; Rolland and Freeman, 2010; Parasuraman, 2005). Responsiveness was adapted from study of (Lee and Lin, 2005; Zavareh *et al.*, 2012; Parasuraman, 2005; Stiakakis and Georgiadis, 2009). Customer satisfaction construct captures the respondents' satisfaction Electronic service quality of Islamic banks in Jordan was adapted from study of (Zavareh *et al.*, 2012; Herington and Weaven, 2009; Sheng and Liu, 2010).

4.3. Sample characteristics

The data collection resulted in 208 answers from customers of Islamic bank in Jordan. A total of 208 of these questionnaires were completed and used in the data analysis.

Table 9. Sample characteristics

Variable		Frequency	%
Gender	Male	159	76.4
	Female	49	23.6
Age	less than 20 years	3	1.4
	20- less than 30 years	78	37.5
	30- less than 40 years	113	54.3
	40 years and more	14	6.7
Education	high school	14	6.7
	Diploma	19	9.1
	Bachelor	134	64.4
	postgraduate	41	19.7

The respondents include (76.4 percent) are males and (23.6 percent) are females which indicates that males make the higher percentage of Islamic bank customers. Regarding the age groups, Table 9 indicates that age group 30- less than 40 years forms the highest percentage of customers (54.3 percent), and age group less than 20 years forms the lowest percentage of customers (1.4 percent). With regard to educational level, employees with only high school make (6.7 percent). Diploma holders make (9.1 percent) of the customers. While holders of Bachelor degrees were the largest group of respondents makes (64.4 percent). Finally, holders of postgraduate degrees make (19.7 percent) of the customers. The sample characteristics of the respondents represented in Table (9).

4.4. Reliability and validity of the survey instrument

The survey instrument with 31 items was developed based on the five variables as independent variables: Reliability (R1-R5), Ease of Use (EU1-EU5), Efficiency (EF1-EF4), Website Design (WD1-WD4), Privacy (PR1-PR4), and Responsiveness (RE1-RE4), and one dependent variable, Customer satisfaction (CS1-CS5). The instrument was evaluated for reliability and validity. Reliability refers to the instrument's ability to provide consistent results in repeated uses (Gatewood and Field, 1990). Validity refers to the degree to which the instrument measures the concept the researcher wants to measure (Bagozzi and Phillips, 1982).

Table 10. Factor analysis of Electronic service quality

Variables	Mean	Loadings	Eigenvalue	Variance	Reliability
Reliability (R)	3.44		2.131	42.624	.7883
R1	3.95	.774			
R2	3.32	.743			
R3	3.37	.803			
R4	3.40	.543			
R5	3.15	.500			
Ease of Use (EU)	3.84		2.136	42.717	.7441
EU1	3.93	.582			
EU2	3.89	.785			
EU3	3.77	.624			
EU4	3.97	.701			
EU5	3.65	.702			
Efficiency (EF)	3.63		2.011	50.271	.7921
EF1	3.84	.740			
EF2	3.69	.857			
EF3	3.67	.567			
EF4	3.33	.770			
Website Design (WD)	3.39		2.151	53.778	.7217
WD1	3.55	.772			
WD2	3.34	.817			
WD3	3.04	.823			
WD4	3.62	.559			
Privacy (PR)	3.73		1.631	40.779	.7830
PR1	3.71	.570			
PR2	3.70	.729			
PR3	3.69	.686			
PR4	3.81	.745			
Responsiveness (RE)	3.58		2.132	53.309	.7462
RE1	3.63	.834			
RE2	3.61	.477			
RE1	3.52	.852			
RE2	3.57	.824			

Table 11. Factor analysis of Customer satisfaction

Variables	Mean	Loadings	Eigenvalue	Variance	Reliability
Customer satisfaction (CS)	3.62		2.490	49.802	.7435
CS1	3.69	.601			
CS2	3.62	.784			
CS3	3.69	.734			
CS4	3.38	.800			
CS5	3.72	.578			

Factor analysis and reliability analysis were used in order to determine the data reliability for the Electronic service quality dimensions, and Customer satisfaction. A within factor, factor analysis was performed to assess convergent validity. The results of the factor analysis and reliability tests are presented in Table 10 and Table 11. All individual loadings were above the minimum of 0.5 recommended by Hair et al. (1998). For exploratory research, a Chronbach α greater than 0.70 is generally considerate reliable (Nunnally, 1978). Chronbach α statistics for the study contracts are shown in table 10. Thus it can be concluded that the measures used in this study are valid and reliable. On the basis of Cattell (1966) and Hair et al. (1998) criterion, factors with eigenvalues greater than 1.0 and factor loadings that are equal to or greater than 0.50 were retained. 31 items, loading under six dimensions of independent variables, and one dimension of dependent variable, were extracted from the analysis.

4.5. Psychometric properties and dimensions of the Electronic service quality dimensions scale and customer satisfaction

Kaiser-Meyer-Olkin and Bartlett’s Test of Sphericity has been used as Pre-analysis testing for the suitability of the entire sample for factor analysis as recommended by Comrey (1978), the value of The Kaiser-Meyer-Olkin measure was used to assess the suitability of the sample for each unifactorial determination. The KMO values found (see Table 12) are generally considered acceptable (Kim and Mueller, 1978). All factors in each unifactorial test accounted for more than 40 per cent of the variance of the respective variable sets. This suggests that only a small amount of the total variance for each group of variables is associated with causes other than the factor itself, and the Bartlett tests of sphericity was significant at $p < 0.01$, thus, indicating that the sample was suitable for factor analytic procedures (see Table 12).

Table 12. Kaiser-Meyer-Olkin and the Bartlett’s Test of Sphericity

Variables	Kaiser-Meyer-Olkin Values	Bartlett’s Test of Sphericity		
		Approx.Chi-Square	df	Sig.
Reliability	.697	158.134	10	.000
Ease of Use	.647	173.210	10	.000
Website Design	.655	145.253	6	.000
Efficiency	.625	198.976	6	.000
Privacy	.594	58.854	6	.000
Responsiveness	.707	184.390	6	.000
Customer satisfaction	.725	247.521	10	.000

5. Correlation analysis: relationships between the variables

The correlation matrix in Table 12 further indicates that Electronic service quality dimensions were positively and moderately correlated with customer satisfaction. The correlation coefficients between the independent variables (i.e. electronic service quality) and the dependent variable (i.e. customer satisfaction) were less than 0.9, indicating that the data was not affected by a collinearity problem (Hair et al., 1998). These correlations are also further evidence of validity and reliability of measurement scales used in this research (Barclay et al., 1995; Hair et al., 1998).

Table 13. Summary of correlations of Electronic service quality dimensions

Variables	R	EU	WD	EF	PR	RE
Reliability	1					
Ease of Use	.570(**)	1				
Website Design	.720(**)	.600(**)	1			
Efficiency	.682(**)	.662(**)	.735(**)	1		
Privacy	.550(**)	.624(**)	.511(**)	.613(**)	1	
Responsiveness	.702(**)	.537(**)	.715(**)	.635(**)	.519(**)	1

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

6. Descriptive statistics analysis

Table 13 indicates that customers of Islamic banks in Jordan perceived Ease of Use (with the highest mean scores, i.e. $M = 3.84$, $SD = 0.593$) to be the most dominant Electronic service quality dimensions within their banks and evident to a considerable extent, followed by Privacy ($M = 3.73$, $SD = 0.629$), Efficiency ($M = 3.63$, $SD = 0.753$), Responsiveness ($M = 3.53$, $SD = 0.779$), Reliability ($M = 3.44$, $SD = 0.659$), and Website Design ($M = 3.39$, $SD = 0.787$), with the lowest mean score was perceived on the overall as least practiced within banks. With regard to customer satisfaction of Electronic service quality, Table 13 indicates that customers of Islamic banks moderately satisfied. The standard deviations were quite high, indicating the dispersion in a widely-spread distribution. This means that the effects of Electronic service quality on customer satisfaction are an approximation to a normal distribution.

7. Multiple regression analysis

Multiple regression analysis was employed to test the hypotheses. It is a useful technique that can be used to analyze the relationship between a single dependent variable and several independent variables (Hair et al., 1998). Before employing the multiple regression test, Variance Inflationary Factor (VIF) test and Tolerance test were used to test the relationships between independent variables, taking into account that VIF should not exceed the value of 10 and Tolerance value should exceed the value of 0.05. The results can be seen in Table 14. The results shown in Table V indicate that VIF values for all variables were less than 10 (1.928-3.092), and values of Tolerance for all variables were greater than 0.05 (0.323-0.519). Therefore, there is no multicollinearity between independent variables, which means that the model used in this study is correct. Based on this method, the six main independent variables (Electronic service quality dimensions) and dependent variable (customer satisfaction) were entered together. Histogram and Normal P-P plot of standardize residual that were conducted also indicate normality of the error term while scatter plot shows consistent variance of error terms (Homoscedasticity).

Table 14. Regression results between Electronic service quality and customer satisfaction

Independent variables	Unstandardized		Standardized	t	Sig.	Tolerance	VIF
	B	Std. Error	beta				
Constant	.095	.209		.455	.649		
Reliability	.075	.073	.069	1.030	.304	.372	2.690
Ease of Use	.149	.072	.123	2.059	.041	.464	2.154
Website Design	.250	.065	.274	3.826	.000	.323	3.092
Efficiency	.081	.067	.085	1.215	.226	.339	2.952
Privacy	.186	.065	.163	2.875	.004	.519	1.928
Responsiveness	.240	.059	.261	4.055	.000	.403	2.481

Notes: $R^2 = .665$; Adj. $R^2 = .655$; Sig. $F = 0.000$; F -value = 66.591; dependent variable, customer satisfaction; $p < 0.05$

The partial regression plot indicates positive linearity of the relationship between the independent (Electronic service quality dimensions) and dependent variable (customer satisfaction). From these analyses, it can be concluded that multiple regression model of this study meets the six assumptions required to ensure validity of its significance test. This indicates that there is a statistically significant

relationship between Electronic service quality dimensions and customer satisfaction. As depicted in Table 14, the coefficient of determination (R^2) was 0.655, representing that 65.5 percent of customer satisfaction can be explained by the six model variables. The proposed model was adequate as the F-statistics was significant at the 5 percent level ($p < 0.05$). The individual model variables revealed that Ease of Use ($b = 0.123$, $r < 0.05$), Website Design ($b = 0.274$, $r < 0.05$), Privacy ($b = 0.163$, $r < 0.05$), and Responsiveness ($b = 0.261$, $r < 0.01$) were found to have a significant and positive effect on customer satisfaction. Therefore, the hypotheses H1b, H1c, H1e, and H1f were supported. The results also indicated that Reliability ($b = 0.069$, $r > 0.05$) and Efficiency ($b = 0.085$, $r > 0.05$) were found to have insignificant effect on customer satisfaction. Therefore, the hypotheses H1a and H1d were not supported.

8. Discussions

- Reliability has got a mean (3.44) with medium evaluation level from the perspective of bank customers, suggesting that websites of Islamic banking in Jordan provide necessary information about e-services provided accurately and sufficiently detailed, networking between the customers and the Bank is constantly pursued by managing the website which in turn are effective technology correction of error exposed by customer, And draw a positive image in the mind of the customer that the website is capable of handling errors in case of technical problems on the website, which reflects the customer's impression that Islamic banks can be trusted, this result is consistent with the study of (Kuo, 2003; Wolfinbarger and Billy, 2003), that the reliability of the website is an effective dimension of electronic service quality through the ability of website management to provide electronic service as promised.

- Ease of Use has got a mean (3.84) with high evaluation level from the point of view of the Bank's customers, this refers to the ease of use of the websites of Islamic banks in Jordan, regardless of their scientific background, ease of use appears through contain appear the index for all website pages and links that make it easier to navigate to where you want to meet the desire of customers, then the customer becomes more effective in finding the information you want quickly., Which allows customers to return to the website again and again when needed, this result is consistent with (Li *et al.*, 2009) that simply of using website are vital and important aspects for customers to maintain and attract new customers, and (Griffiths and Brophy, 2005) noted that to remember the Web address associated with ephedrine.

- Website design has got a mean (3.39) with medium evaluation level from the point of view of the Bank's customers, this indicates that the website design is an important and vital element for website of Islamic banks in Jordan, so Islamic banks keen to show their website at best and brightest picture to attracts customers to visit and reuse, the overall appearance of the website is reflective of the Bank, so the website design in innovative ways and attractive in pictures and animations make the customer happy and eager to use the Web site as well as the clarity of text, phrases and use Appropriate visuals for the type of electronic service provided by the website and consistent colors, to become the site more fun, thus enhancing the continued use of electronic service, this result consistent with (Jernberg, 2009) that the attractiveness of the website should be visually satisfying compared with competitors in the age of technology, and also consistent with (Madu and Madu, 2002) that the aesthetic of the website appear through the legibility and clarity of texts and sizes under specific criteria.

- Efficiency has got a mean (3.63) with medium evaluation level from the point of view of the Bank's customers, this shows the speed of customer access to the website as a result of its ease of use leading to save time and effort on both the customer and the Bank, Islamic banks work to meet customer requirements and complete their transactions in a proper manner and appropriate, and according to (Parasuraman *et al.*, 2005; Zeithamal *et al.*, 2000) the efficiency of the website makes the customer does not need large amounts of information to use the website for its ease of use and speed.

- Privacy has got a mean (3.73) with high evaluation level from the point of view of the Bank's customers, this indicates secure website for Islamic banks from the unprotected interference and protection of customer's personal information, which preserves the privacy of customers and reduces their fear when dealing with online services, especially financial information, and when customers use credit card means the websites using special software for secure electronic means of payment and this leads to establish trust between the Bank and the customer. According to Sheng and Liu, (2010) website preserve

customer information of hack makes them feel secure about the site, this result consistent with Iliachenko (2006) that the Privacy protecting customer personal information.

- Responsiveness has got a mean (3.58) with medium evaluation level from the point of view of the Bank's customers, this indicates that the responsiveness of the websites of Islamic banks in Jordan to customer needs and providing them online services they need in a timely manner and without any interruption increase the effectiveness of the Bank's performance, and enable customers to use the online services they need when and where they want, and responsiveness of website administration to customer complaints and problems of great importance in the success of banks under current technological race, According to (Parasuraman *et al.*, 2005), the main focus lies in effective response of website management in addressing the problems facing the customer, this result consistent with Yen (2008) that the responsiveness of the website reflect the level of assistance when stop the service or mistakes while using the service.

- Electronic service quality satisfaction provided by Islamic banks in Jordan has got a mean (3.62) with medium evaluation level from the perspective of bank customers, suggesting the success of strategies of Islamic banks in Jordan in achieving customer satisfaction and paying attention by management of banks to their customers, when the customer gets the service they want and meet his expectations, he feels good about those banks which helps in maintaining customers and encourage new ones and earn their loyalty to be reflected on the long term profits and survival, and continuing in competitive markets, Deng *et al.* (2010) noted that customer satisfaction can be measured after the experience service directly, according to Oliver (2010) that the customer feel happy when responding to his present and future requirements and solve all his problems, Mahmood (2013) referred that to reduce the number of customer complaints to zero as an indicator of customer satisfaction.

- The results of the study showed that there is a statistically significant impact at the level of significance ($\alpha \leq 0.05$) for the dimensions of electronic service quality on customer satisfaction of Islamic banks in Jordan, and the details of its dimensions as follows:

- The results of the study showed an effect of reliability on customer satisfaction of Islamic banks in Jordan, this is consistent with Li *et al.*, 2009; Lee and Lin, 2005; Parasuraman, 2005; Chen and Dubinsky, 2003). This impact results came from the attention of the website management of Islamic banks in Jordan with the accuracy of the information provided by the website, and providing electronic services is somewhat free of mistakes to reflect to customers that a reliable Bank, which creates trust between the customer and the Bank which in turn achieve customer satisfaction about the performance of the Bank.

- The results of the study showed a statistically significant effect of ease of use on the customer satisfaction of Islamic banks in Jordan, this is consistent with (Lin and Sun, 2009; Carlson, O'Cass, 2010) this indicates that the ease of use of the websites of Islamic banks in Jordan contributes to customer satisfaction by organizing pages, clear language, quick loading, and switching easily to another service which helps customers complete their transactions easily without fatigue, the customer feels relieved and delighted and accepts the use of electronic services.

- The results of the study showed an effect of efficiency on customer satisfaction of Islamic banks in Jordan, but not statistically significant, this is consistent with the (Sheng and Liu, 2010; Jun and Cai, 2010) this shows that efficient websites of Islamic banks in Jordan affects customer satisfaction through electronic service speed and ease of use by the customer with a few clicks and less time as possible reflecting the effectiveness of the website where the service was quick and easy.

- The results of the study showed a statistically significant effect of website design on customer satisfaction of Islamic banks in Jordan, this is consistent with the (Nortasi, 2008; Rexha, 2005; Sheng and Liu, 2010). Which shows that attractive websites of Islamic banks affect customer satisfaction, and the quality of the images and colors used on the home page of websites increases the customer's desire to deal with the websites, they feel pleasure and harmony and aesthetic manifestations help keep current customers and attract new customers, reflecting the bright image of the Bank, and this will reflect positively on customer satisfaction.

- The results of the study showed a statistically significant effect of privacy on customer satisfaction of Islamic banks in Jordan, this is consistent with (Madu and Madu, 2002; Sheng and Liu, 2010; Sahadev and Purani 2008; Change *et al.*, 2009), comes this effect through the Jordan Islamic Bank websites to keep

personal information about customers and ensure protection of financial information which helps to increase customer satisfaction about the performance of the Bank, secure websites reduces fear dealing with electronic services, customer feel reassured and satisfied for having confidence in the Bank.

• The results of the study showed a statistically significant effect of responsiveness on customer satisfaction of Islamic banks in Jordan, this is consistent with (Yen and Lu, 2008; Lee and Lin, 2005; Rexha, 2005) this indicates that managing websites of Islamic banks achieved rapid response to customer demand and respond to customer inquiries which reflected on customer satisfaction, this shows the success of Islamic banking in Jordan in solving customer problems and reduce their websites.

9. Recommendations

Based on the findings of the study results researchers recommend Islamic banks management and decision makers the following :

1. To get assistance by experts in the field of Website design, because the attractive website and convenient phrases for images need to be sufficient expertise and experience in this area to support their appeal for customers.

2. Islamic banks to get benefit from the experiences of developed countries in the area of technology programs for the protection and monitoring of customer information to enhance the current software in these banks.

3. To use programs supports page load speed to upgrade the efficiency of the website.

4. Create a special section employs specialist staff in resolving customer issues 24-hour works even on holidays, in addition to undergoing training courses in that area to speed up their response to customers and save time.

5. Taking into account the quality of electronic services of competitors in the banking sector and the need for improvement on an ongoing basis, commensurate with the requirements of the customers and keep abreast of evolving needs and assessments of customer satisfaction periodically appear on the website through customer feedback to improve weaknesses and enhance customer satisfaction.

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