

Information Technology In Jordan:E-Service Quality And Internet Banking

¹Nizar Al-momani, ¹Dr.Bilal Almomani, ¹Mohammed Omar

Islamic Arab Bank, Jordan, Royal Jordanian Hashemite Office, Ministry of Education, Jordan.

ABSTRACT

The ultimate purpose of this search is to evaluate consumer perceptions on quality of e-services and Internet banking adoption in Jordan. Results show that Internet banking users and non-users have different expectation towards e-service quality preferences. The implications are discussed and recommendations are made in order to improve Internet banking service quality in Jordan.

Keywords: *Information And Communication Technology (ICT), Eservice Quality, Internet Banking, Networks*

1. INTRODUCTION

In the era globalization with the increasing completion in all fields around the world including the banking sectors many banks and financial institutions have modified and changed their strategies and their ways in conduction their businesses and delivering their services in order to provide better and faster services to their clients in order to retain the current customers and to attract new clients.

The rapid growth of information and communication systems that rely on electronic technology especially these relating to the internet and the computer applications has led to treat changes in the exchanging and delivering the services to the intended clients.

2. RESEARCH PROBLEM

Research problem stems from the fact that many banks have no time or real interest in promoting and encouraging the use of e-service in their daily transactions. Lack of training the employees to be able and fluent in using the modern technologies in providing the banking Services to the customers.Under evaluating the importance of e-service works adoption in a competitive business environment.

4. RESEARCH IMPORTANCE

Research importance emerges from the needed emphasis of the e-service quality and uptake of internet banking in jordan, and the likely positive results on the bank's customers.

5. LITERATURE REVIEW AND FRAMEWORK:

The development of the internet as a service and marketing channel has breached the geographical and industrial barriers, creating new products, services and market opportunities Mandam Momeni (2013) found out that ease of service use, website design, speed of connectivity and transactions, information security, information content and support service

3. RESEARCH GOALS

The purpose of this study is to investigate customers' perception of e-service quality and adoption of Internet banking in Jordan. Specifically, the objectives are threefold: to explore the key dimensions of e-service quality perceptions towards Internet banking; to examine the relationship between demographic characteristics and the perceived e-service quality perceptions; and to find out the relationship between e-service quality perceptions among Internet banking adopters and non-adopters. Recommendations are offered to practitioners to improve the quality of Internet banking services.

Many business organizations and banks have adopted modern technologies to reduce costs and enhance customer service quality, delivery and standardizing core service offerings, giving the clients a lot of options and alternatives to conduct banking transactions (Hassan A. Nabi, 2011). The rapid technological spread makes the internet the best way to provide customers with banking services regardless of the limits of time and geography, this makes the banks consider the internet as an important part of their strategic plans (Akram Jalal et al, 2011)

have a significant effect on user's satisfaction, this satisfaction has the great impact on loyalty to the bank and willingness to continue the relations with e- banking service.

Yang et al. (2003) suggested another different perspective in service quality dimensions of the online retail business. The

authors' service quality definition consists of eight dimensions that are driven/measured by a bank's responsiveness in the following aspects:

- prompt delivery, timely response,
- credibility that includes confidence and good reputation
- ease of use that includes user friendly, easy navigation
- reliability that includes accurate order, keeping promises
- convenience that includes convenient shopping in time and place
- communication that includes up to date information
- access that includes the accessibility through almost every channel and lastly
- competence that includes representative knowledge to resolve problems

After reviewing some perspective on service quality dimensions in their literature review, Van Riel et al. (2003) described their own e-service quality dimensions. They use design of user interface, reliability, security, customization, and responsiveness as major factors that drive e-service quality. These dimensions reflect the different nature of dealing with a website as opposed to interacting with service employees.

Santos (2003), Van Riel et al. (2003), and Lee and Lin (2005) supported the appearance variable as the driver in e-service quality. Based on Santos (2003), variable appearance means that the graphics, colors, and images are attractive enough to the customers. Van Riel et al. (2003) also mentioned that user interface or appearance means that the website is clear and well organized. Lee and Lin (2005) suggested that appearance means user interface design that is interpreted by the customers.

The construct "reliability" is defined differently by researchers. Lee and Lin (2005) and Van Riel et al. (2003) conceptualize reliability as one dimension in e-service quality. Kang and James (2004) also pointed out variable reliable in the traditional service quality dimensions.

We feel that customization can build up e-service quality due to the customer demand for personalized service. Yang et al. (2003) suggested that personalization should be done in the form of individual attention. We also believe that personalization can be done through customization. Customization would be the customization of the interface that the customer might enjoy as mentioned by Field et al (2004). Van Riel et al (2003) mentioned that customization is to adapt with the customer's needs.

We further believe that communication should be analyzed as internet banking lacks contact and personal touch with the service provider. communication impacts e-service quality. Communication as suggested by Santos (2003) refers to the accessibility of the website's user to communicate to the website provider and availability of various communication methods to contact the support service through the website.

Anderonke and Charles (2010), found that banks' client who are active users of e- banking system use it because it is

convenient, easy to use. Time saving and appropriate for their transactions needs.

Banking services through the internet is away to keep the existing customers and to attract others to the bank through which customers can use different kinds of banking services ranging from bill payment to making investments (Pikkarainen et al., 2004).

Ibrahim Elbeltagi et al, (2008) study mentioned that businesses have witnessed great growth through the use of the advanced information and communication systems including the advancements in the internet application that changed the traditional ways of conducting the business, since businesses infuse information systems into their organizations and operations to enhance competitiveness and facilitate business growth and success, and information systems are embedded in organization and they are the result of standard operating procedures, workflows, policies, organizational culture and structure, the optimal goal of any business is to strive for competitive advantage through continuous improvement.

Nicholls – Nixon (2005) found that the rapid growth in the banking sector has created dramatic changes in the scale and scope of the banks activities, because of the greater managerial complexity than even before and because of the severe competition between the banks to provide better, faster and differentiated services to achieve customers' satisfaction and loyalty.

For many people the internet provides effective social networking opportunities and their online behavior including building relationship, expanding their individual network of friends, finding people who have similar experiences to discuss many issues or topics of interest, but the present situation has changed that it is a must for any bank or financial institution to apply the information and communication technologies and the internet, the social networking technology allows people to create personal profiles and network with others.

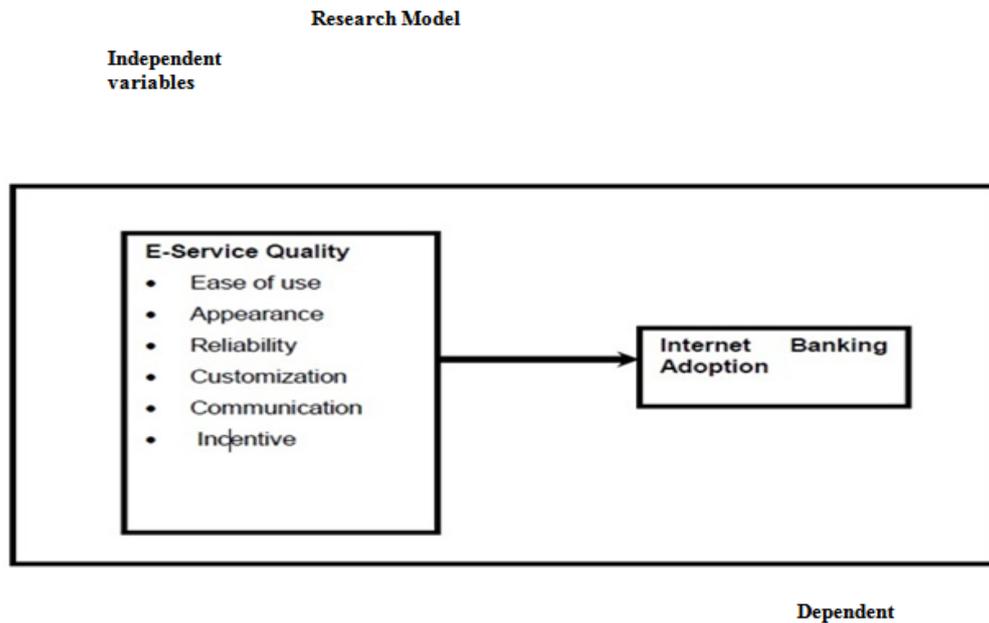
From the mentioned above it is clear that the effective combination of human capital and technology is required to increase productivity for these reasons the financial institutions have to optimize this human capital by facilitating the interaction of communities and networks.

Social network function in the online environment through social networking sites, that is technology that allows people to link with other sites to perform business.

Being linked to others enables access to different sites increasing and improving collaboration in information sharing, enhancing communication with business partners and customers Boyed & Eillison (2007).

The banking sector today is living in the information age known as the digital economy, where businesses obtain economic value from the information they acquire and the information and communication tools they adopt and employ through the employees who deliver the banking services (Suraj Tunde, et al, 2013).

6. RESEARCH MODEL



7. RESEARCH HYPOTHESIS

Ho: There is no relationship between Ease of use and Internet banking adoption

H1: There is a relationship between Ease of use and Internet banking adoption

Ho: There is no relationship between appearance and Internet banking adoption

H1: There is a relationship between appearance and Internet banking adoption

Ho: There is no relationship between reliability and Internet banking adoption

H1: There is a relationship between reliability and Internet banking adoption

8. Method and procedures

8.1 Research population and sample:

Research population consisted of the customers dealing with Islamic Bank's branches in Amman, while the study sample consisted of (85) customers.

8.2 Demographic variables:

These variables include the customer's gender, age, education & monthly income.

8.3 Survey and analysis unit

-This unit consisted of (78) males and (7) females customers.

-The researcher received the (90) responses.

-The valid for the analysis (85).

H1: There is a relationship between reliability and Internet banking adoption

Ho: There is no relationship between Customization and Internet banking adoption

H1: There is a relationship between Customization and Internet banking adoption

Ho: There is no relationship between communication and Internet banking adoption

H1: There is a relationship between communication and Internet banking adoption

Ho: There is no relationship between Incentive and Internet banking adoption

H1: There is a relationship between Incentive and Internet banking adoption

8.4. Research Instrument And Data Collection Sources:

To achieve the research goals, the researcher used two basic sources for data collection:

- The primary source to treat the analytical sides of the research topic, is through a questionnaire constructed by the researcher as the basic tool
- Secondary sources including the use of journals, articles & books relating to the e-service topic in addition to previous researches conducted by Arab and foreigner researchers to know the relevant methods for conducting and writing the scientific research, to obtain the general perspective about the

up-to-date innovation and different usages of the e-service.

- The questionnaire consisted of invitation letter for participation, study sample demographic variables,

The third part included the main questionnaire items using likert scale (five point scale) ranging from strongly agree (5) points to strongly disagree (1) point.

9. STATISTICAL TREATMENT

To answer the research questions and to test software its hypothesis SPSS statistical package for social sciences was used through using the following statistical procedures:

- Frequencies, percentages to describe the demographic variables of the research sample.
- Means and standard deviations.

including, gender, age, education & monthly income.

Tab and manipulate data using the Statistical Package for the Social Sciences, SPSS, as the researcher used the .05 level of significance and the calculated value and tabular value in testing hypotheses, and data collected to achieve the objectives of the study and testing of hypotheses have been using descriptive statistical methods

Researcher adopted the following statistical methods:

1. Standards descriptive statistics (Descriptive Statistic Measures) in order to describe the characteristics of the study sample, as has been the use of percentages and frequencies, and to analyze the answers respondents paragraphs of resolution and determine the relative importance of the answers of the study sample and the direction of axes and the dimensions of the study, it has been the use of standard deviations.
2. Analysis (One Sample t test) in order to test the sample opinion on the subject of study
3. Study tool reliability coefficient (Cronbach Alpha) to test the reliability of study tool.

Questionnaire is the main tool used to collect raw data for this study, and to achieve the objectives of the study and testing of hypotheses have been building resolution depending on the model, in addition to previous studies related to the subject of the study was formulated all the paragraphs of resolution on the Likert scale quintet was as shown in Table (1)

Table (1)
Likert scale quintet

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

To make sure of the reliability of study tool has been tested using Cronbach's alpha (Cronbach Alpha) for the stability of the final sample, with a Cronbach alpha coefficient (%62.21) which is an excellent rate being higher than the acceptable.%60

Gender	repetition	rate
Male	78	91.8
Female	7	8.2
Total	85	%100

First: describe the characteristics of the study sample:

Was extracted frequencies and percentages of the characteristics of the study sample also shows the following tables

- Gender

Table (2)

The study sample distribution by gender

Note that 91.8% of male respondents and 78's people, while 8.2% of female respondents and the number 7 members.

- Age

Table

The study sample distribution by age

(3)

Age	repetition	rate
18-29 years	21	24.7
39-30	36	42.4
49-40	28	32.9
+50	-	-
Total	85	%100

Show that 42.4% of respondents between the ages of 30-39 years, and the 36 individuals, followed by 32.9% of respondents aged 40-49 years, and the number of 28 individuals, while 24.7% of respondents aged between 18-29 years and the 21 individuals.

- Education

Table (4)

The study sample distribution by education

Education	repetition	rate
Secondary school and less	14	16.5
Diploma	21	24.7
Bachelor degree	39	45.9
Higher education	11	12.9
Total	85	%100

Show that 45.9% of the sample educational level bachelor's degree, and the 39 individuals, followed by 24.7% of respondents diploma and the 21 individuals, followed by 16.5% of secondary general and the 14 individuals, while 12.9% of higher education and the 11 individuals.

- Monthly income

Table (5)

The study sample distribution by monthly income

Monthly income	repetition	rate
JD 400Less than	34	40.0
JD 599400-	15	17.6
600-799 JD	18	21.2
JD 999-800	15	17.6
1000 and above	3	3.5
Total	85	%100

We note that the largest category of the study sample at least a monthly income of 400 dinars and was 40% and the number of members 34 individually, followed by 21.2% monthly income ranges between 600-700 dinars, and the 18 individuals, while 17.6% of respondents monthly income

Second: The results of the study:

ranges between 400-500 dinars and the same percentage of their income also varies between 800-999 dinars, and the number of each class of 15 individuals, while 3.5% of the sample increases the monthly income of 1,000 dinars monthly, and the number 3 members.

The arithmetic mean and standard deviation extract to describe the sample answers about the paragraphs below.

Table (6)

mean and standard deviation

Paragraph Number	mean	standard deviation
Ease of use		
User friendliness of the website is important	4.7294	0.79265
The website is comfortable	4.1294	1.09966
Instructions on the website are comprehensible	4.0941	1.12993
Appearance		
Attractive design of the website will catch my attention	4.1176	0.99297
Animations on the website is important	3.9647	1.08504
Reliability		
Fast support and availability of technical service is important	3.9647	1.11747
Up to date content is crucial	4.1765	1.03713
Little time is required to download the websites	3.8118	1.13907
Customization		
It is important for the websites' to be customized to my preferences	3.7176	1.26878

Is the website provide me an accurate Information as my demand	4.0706	1.04412
Is the website provide me with specialized services	3.7647	1.17156
Communication		
Various method in communication (phone, fax, email, sms) is important in the website	3.7412	1.21648
A website make me able to communicate with many bank branches	4.2941	0.97374
A website is very secure	4.1529	1.01777
Incentive		
The incentive (encouragement) from the banks is necessary	3.9176	1.00252

Note that the sample is positive towards the paragraphs above trends and averages because the computational greater than the average measurement tool (3)

Third: hypothesis testing
 The first hypothesis:
 Ho: There is no relationship between Ease of use and Internet banking adoption
 Ha: There is a relationship between Ease of use and Internet banking adoption

Table (7)
The first hypothesis test results

result of Ho	T SIG	T tabulated	T calculated
Reject	0.00	1.9886	17.80

One Sample T-Test was used to test our hypothesis and we found that in the previous table, the value of (T calculated = 17.80) greater than T tabulated , according to our rule is: accept the (Ho) if the calculated value is less than tabulated value and rejects (Ho) if the calculated value is greater than tabulated value, so we will reject Ho and accept the alternative hypothesis Ha

Table (9)
The third hypothesis test results

result of Ho	T SIG	T tabulated	T calculated
Reject	0.00	1.9886	11.53

The second hypothesis:
 Ho: There is no relationship between appearance and Internet banking adoption
 Ha: There is a relationship between appearance and Internet banking adoption

Table (8)
The second hypothesis test results

result of Ho	T SIG	T tabulated	T calculated
Reject	0.00	1.9886	11.20

One Sample T-Test was used to test our hypothesis and we found that in the previous table, the value of (T calculated = 11.20) greater than T tabulated, according to our rule is: accept the (Ho) if the calculated value is less than tabulated value and rejects (Ho) if the calculated value is greater than tabulated value, so we will reject Ho and accept the alternative hypothesis Ha
 The third hypothesis:
 Ho: There is no relationship between reliability and Internet banking adoption
 Ha: There is a relationship between reliability and Internet banking adoption

One Sample T-Test was used to test our hypothesis and we found that in the previous table, the value of (T calculated = 11.53) greater than T tabulated, according to our rule is: accept the (Ho) if the calculated value is less than tabulated value and rejects (Ho) if the calculated value is greater than tabulated value, so we will reject Ho and accept the alternative hypothesis Ha

The fourth hypothesis :
 Ho: There is no relationship between Customization and Internet banking adoption
 Ha: There is a relationship between Customization and Internet banking adoption

Table (10)
The fourth hypothesis test results

result of Ho	T SIG	T tabulated	T calculated
Reject	0.00	1.9886	9.65

One Sample T-Test was used to test our hypothesis and we found that in the previous table, the value of (T calculated 9.65) greater than T tabulated, according to our rule is: accept the (Ho) if the calculated value is less than tabulated value and rejects (Ho) if the calculated value is greater than tabulated value, so we will reject Ho and accept the alternative hypothesis Ha

The fifth hypothesis :
 Ho: There is no relationship between communication and Internet banking adoption
 Ha: There is a relationship between communication and Internet banking adoption

Table (11)
The fifth hypothesis test results

result of Ho	T SIG	T tabulated	T calculated
Reject	0.00	1.9886	14.10

10. CONCLUSION

The perception and attitude of the society towards Internet banking is the primary issue that should be improved in order to increase the adoption of Internet banking in Jordan. Technology needs extensive learning before it can be adopted. It is just like a new product where the early adopters need to try and feel it first before they adopt it. In order for the adoption in Internet banking to be rationally progress with the advancement, the adopters should also experience, learn, and educate themselves with the Internet banking. Looking at the E-service quality preferences among the adopters and non-adopters will give the banks an option to better devise and strategize this mode of banking.

One Sample T-Test was used to test our hypothesis and we found that in the previous table, the value of (T calculated 14.10) greater than T tabulated, according to our rule is: accept the (Ho) if the calculated value is less than tabulated value and rejects (Ho) if the calculated value is greater than tabulated value, so we will reject Ho and accept the alternative hypothesis Ha

The sixth hypothesis:

Ho :There is no relationship between Incentive and Internet banking adoption
 Ha: There is a relationship between Incentive and Internet banking adoption

Table (12)
The sixth hypothesis test results

result of Ho	T SIG	T tabulated	T calculated
Reject	0.00	1.9886	8.43

One Sample T-Test was used to test our hypothesis and we found that in the previous table, the value of (T calculated 8.43) greater than T tabulated, according to our rule is: accept the (Ho) if the calculated value is less than tabulated value and rejects (Ho) if the calculated value is greater than tabulated value, so we will reject Ho and accept the alternative hypothesis Ha

Recommendations

Government plays an important role in influencing the Internet banking adoption level in a country. In order to reduce the gap between the adopters and the non-adopters, government should put extra effort in establishing Internet banking campaign.

The huge step has been taken by the government to reduce the banks operation into five days in a week where the customers are forced to conduct Internet banking in the off day of the bank. Government should also improve the competitiveness among the Internet banking providers by setting procedural standard in the service delivery and security system, which should subsequently be established as a benchmarking method nationwide.

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