Determinants Ofinternet services satisfaction in Erbil - Iraq

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Abstract : The term 'customer satisfaction' is a basic marketing expressionconstructedin the last three decades. In the past, it was an unpopular and unaccepted concept,asthe aim of companies was to gain new customers rather than retain the existing ones. However, companies realized and understood the significance of customer satisfaction (especially service producing companies) and have adopted it as the highest priority of their operational goals in the present decade.

This study aimsto examine overall customer satisfaction withthe internetservicein the Kurdistan Region of Iraq, factors affecting satisfaction and the relationship between satisfaction and demographics. The results gained in this studyrevealed that 81.5% of respondents were satisfied. The combination of network quality, billing, speed and customer support (internet services attributes) indicatedarelationship with satisfaction, whilst age, education, location and employment variables indicated no relationship.

Keywords: customer satisfaction, internet services, chi-square, Erbil

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1. Introduction

The previous regime in Iraq rejected the development of any kind of communication technology in the Kurdistan area; after the Kurdish uprising in 1991, they cut off all means of communication between Kurdistan and other parts of Iraq, consequently Kurdistan became an isolated area of the country. The Kurdistan Regional Government (KRG) was unable to develop the communication sector because of imposed sanctions and the isolation by the regime until 2003, when coalition forces invaded Iraq. The KRG then began to develop communicationtechnology; the result was reconnection to other parts of the area and the world. At the same time, the KRG started to invest in the oil industry and

to construct an infrastructure for industry in the region (Khayyat & Heshmati 2012).

Jalula 2011 states that there is a remarkable relationship between the development of information and communication technology and growing business transactions and customer demands; currently technology is one of the most significant factors,working as a dynamic for changing the general business environment.It also has a great role in bringing new products, services, marketing opportunities as well as developing information systemsthat are business oriented and support management processes such as planning, controlling and coordination.

Another study, conducted under the title "Internet-based Interactions", the results of which show the growth of delivery of services, products, and information; the results also reveal that e-commerce applicationshave multiplied when the rate of internet users' access and use of the internet increased. Another advantage of the internet is online retail sites which are at the forefront of developing applications that support and offer customers efficient search opportunities through products, service options, procuring product information, making purchases and tracking orders, some examples of which areDell.com for computer online retailing, Amazon.com for online book purchases, Landsend.com for clothing retail and Travelocity.com for travel services. Products and services are available in

digitalformatin the markets and can be transferred through information-based channels (Ju et al. 2016).

Clearly the internet played an important role in the revolution and in changing the business landscape which became a remarkable resource for connection to customers. The role of the internet in changing the business world is not only restricted to business transactions where companies do business and consumers buy products but it creates new business channels through the delivery of a link from manufactures to retailers and consumers (Jnada et al. 2002).

Customer satisfaction is an important factor in business which can be achieved through customer perception and psychological reaction ofconsumer experience. In the late 1980s, a theory was proposed called the'expectation disconfirmation theory', according to which, intensity (size) and direction (positive/negative) of the gap (disconfirmation) between expectation and comprehended performance will define and reveal customer satisfaction (Khalifa & Liu 2016).

In their research (Roy 2015; Sanchez-Franco et al. 2009), evaluated customer satisfaction between male and female youngsters to designate the variable differences.For data analysis, they used one-way ANOVA. The results revealed that there are considerable differences between males and females, where the male samples considered themselves to be more experienced in comparison tothe female samples. The aims of the studywere to hypothesize about the influence of

online methods of communication on customer satisfaction and loyalty, as well as the relationship between satisfaction and loyalty. .

According to Kim et al. 2004, whoresearchedthe lodging industry, the collected data were analyzed by using a simultaneous equation model where they used two sets of data, online and offline customers(Kim et al. 2004). The results showed customer satisfaction level is the same for both sets, online and offline but,with regard to loyalty, when the service was selected online, the loyalty to service providers is higher than offline selection (Smith 2002). The previous research studied the factors that impact on customer satisfaction and loyalty; arrangement and modification of factors that impact on both are also subject to analysis. The results revealed that the combination of loyalty and commitment has a more effective influence than trust, customer satisfaction and comprehensive value, when they are separated from each other (Lin & Luarn 2003).

The main purpose of this study is to recognize and quantify the impact of factors that drives customer satisfaction in internet services as well as to determine the relationship between the demographic variables and the degree of customer satisfaction.

2. MATERIAL AND METHODS

In this research, customer satisfaction was surveyed in Erbil city in theKurdistan Region of Iraq. The data were collected from 400customerswho were randomly selected, bythe use ofa questionnairesurvey. The questions were self-constructed. The questions for this surveyincluded questions on personal background, age (lowest range was less than 25 and highest was more than 30), gender, employment type,employment(public, non-public), education level (illiterate,secondary education, diploma and higher education), marital status,withother questions about income, expenditure on internet services and expenditure on internet combined with mobile phone services.

Other questions were on variables: use ofinternet service performance network quality/availability, billing, speed and customer care services.

3. Result and Discussion

Table 1 represents the socio-demographic and economics characteristics of customer satisfaction in the study. According to the field surveyof respondents, 57% were male,40.0% were in the 25-30 age group, and 55.0% had university education. The study revealed that the largest proportion of respondents, 52.5%,were single.According to the survey, about 62.8% of the respondents are

in public employment. This result concludesthat most of the customers are young

peoplewho arestill strong and full of energy to use and gain information through

technology.

Table (1) presents the descriptive statistics (frequency statistics) of the

independent variables, (demographics).

variables		frequency	Percentage %
Age group	Less than 25	131	32.8
	25-30	160	40.0
	More than 30	109	27.2
	total	400	100.0
Gender	male	228	57.0
	female	172	43.0
	Total	400	100.0
Marital-status	Married	188	47.0
	Single	212	53.0
	Total	400	100.0
Education level	Illiterate- High-school	55	13.8
	Diploma	125	31.2
	university	220	55.0

	Total	400	100.0
Type of employment	Public employment	251	62.8
	Self-employment	149	37.2
	Total	400	100.0

The dependent variable (customer satisfaction) was analyzed with the descriptive statistics (frequency distribution).This result demonstrates that 81.5% of the respondents are satisfied and with18.5% not being satisfied with the internet services in Erbil. The interpretation of this result could be that Kurdish customers are satisfied with the internet service performance.

Table (2) presents the result of the analyzed overall customer satisfaction.

variables		frequency	Percentage %
Overall customer satisfaction	Not satisfied	74	18.5
	satisfied	326	81.5
	Total	400	100.0

Table 3shows many of the respondents (80.2%) did not use a home phone,with 19.8% of the respondents using ahome phone. According to this table respondents (93.5%) did not have a home phone with internet servicessubscription, but 6.5%

of respondents hadahome phone with an internetsubscription. Most of the respondents（83％）have subscription tothe internet by mobile phone comparedwith19.8％ of respondents havinga subscription via a computer.This study suggests thatcustomer'ssubscription bymobile phone are greaterthan subscription with computer.

Table（3）

variables		frequency	Percentage ％
Use home phone	Yes	79	19.8
	No	321	80.2
	Total	400	100.0
Home phone subscription	Yes	26	6.5
	No	374	93.5
	Total	400	100.0
Mobile phone subscription	Yes	332	83.0
	No	68	17.0
	Total	400	100.0
Computer subscription	Yes	79	19.8
	No	321	80.2

	Total	400	100.0

Table 4 illustrates thatthe majority of customers (62.5%) were somewhat satisfied, also 24.5% ofrespondents were not at all satisfied and 13.0% respondents were very satisfied in network availability.Regarding the costs of internet services, the majority of respondents55.0% were not at all satisfied; 34.2% of respondents weresomewhat satisfied and 10.2% of respondents werevery satisfied. Another field is the speed of service, 51.8% respondents were somewhat satisfied, and 37.0% of respondents were not at all satisfiedwith11.2% of respondents being very satisfied. 62.3% of respondents were somewhat satisfied, 28.2% of respondents were not at all satisfied and 9.5% respondents were very satisfied in overall customer care service. 58.3%, 62.8%ofrespondents were somewhat satisfied, also 30.2%, 27.7% of respondentswerenot at all satisfied and respondents were very satisfied, 11.5%, 9.5% in the ability to get attention quickly and in the ability to provide a solution.There were agreat number of the respondents, 75.5%,who were somewhat satisfied whilst18.5% werenot at all satisfied, with 6.0% of the respondents beingvery satisfied

Table (4)

variables		frequency	Percentage %
Network availability	Not at all satisfied	98	24.5
	Somewhat satisfied	250	62.5
	Very satisfied	52	13.0
	Total	400	100.0
	Not at all	220	55.0

Billing	satisfied		
	Somewhat satisfied	137	34.2
	Very satisfied	43	10.8
	Total	400	100.0
Speed	Not at all satisfied	148	37.0
	Somewhat satisfied	207	51.8
	Very satisfied	45	11.2
	Total	400	100.0
Overall customer care service	Not at all satisfied	113	28.2
	Somewhat satisfied	249	62.3
	Very satisfied	38	9.5
	Total	400	100.0
Ability to get attendant quickly	Not at all satisfied	121	30.2
	Somewhat satisfied	233	58.3

	Very satisfied	46	11.5
	Total	400	100.0
Ability to provide a solution	Not at all satisfied	111	27.7
	Somewhat satisfied	251	62.8
	Very satisfied	38	9.5
	Total	400	100.0

The sample characteristics in the usage of the internet services are summarized in Table 5. It shows the distribution of internet subscribers. It is noted that FAST link, Tarin net, Korek telecom and, among others Soran net, Rebar, Zine, ADSL, Tish net, Asia cell comprise 34.3%, 17.5%, 16.5and 11.5%, 7.8%, 5.8%, 5.0%, 1.3%, 1.0% of the respondents' subscriptions.

Table (5)

variables		frequency	Percentage %
	Fast link	137	34.3
	Tarin net	70	17.5
	Korek tell	66	16.5
	Soran net	44	11.0

Brand	Rebar	31	7.8
	Zine	23	5.8
	ADSL	20	5.0
	Tishk net	5	1.3
	Asia cell	4	1.0
	Total	400	100.0

Table 6 shows the mean values of age, income, costs of internet services and costs ofboth internet services amalgamated with mobile phone services in Erbil.With regard to the age demographic in the study area, 28.18%, of respondents'monthly income was ID 592,100.00, average expenses for internet services for each month were respondents ID 30,125.00, and average expenses for charging of internet service and mobile phone for each monthwere ID54,493.75.

Table (6)

Variables	Age	Income	Costs of .internet	costs of internet & mobile phone
mean	28.18	592100.00	30125.00	54943.75
Std.devation	6.344	392132.912	17359.461	30592.498

After a more detailed analysis of customer satisfaction for the income group, we can identify three groups, as shown in the following table:

The first incomegroupearns less than IQD 500,000, the second income group earns between IQD 500,000 -700,000 and third income group earn more than IQD 700,000. In other words, in the first income group, the average was IQD 408,680.37, the customers' average expenditure on internet services was IQD 27,555.94 and the average expenditure for internet and phone calls was IQD 52,105.02. The average

income between IQD 500,000-700,000 is IQD 617,153.15; in this income group customers have been paying IQD 29,461.71 for internet services and IQD 51,851.35 for both of them. In addition, the average expenditure for internet services was IQD 39,214.29 and IQD 68,728.57 for internet services and phone calls, while customers' average income was IQD 1,126,214.29 in the thirdincome group.

In the analyzed percentage expenditure of the internet services, we notice that 6.74% of the first average income, 4.77%, in the second group and 3.48% in the last group was customer costs for internet services per month. The customer has been charged for the internet service and mobile phone calls by 12.75%, 8.40%, and 6.10%. This result represented those whose incomegroup was IQD > 500,000 more than other group incomes.To explore the relationship between demographic variables and customer satisfaction, the chi-square test was applied. Table 8 represents the result of the relationship between demographic variables and customer satisfaction.

Table (7)

Income Group ID	Number	Average income ID	Average EXP. of internet	Average expenses of internet & phone	% Expenses of internet	% Expenses internet & phone
> 500,000	219	408,680.37	27,555.94	52,105.02	6.74	12.75
500,000-700,000	111	617,153.15	29,461.71	51,851.35	4.77	8.40

< 700,000	70	1,126,214.29	39,214.29	68,728.57	3.48	6.10
Average						

This result demonstrates that there is a relationship between gender and customer satisfaction; the interpretation of the result is that gender has a significant impact on customer perception of how well the internet services meet the requirements and expectations.The result shows that there is no relationship between age group, marital-statues, education, job, income group, expenditure of internet group and expenditure of internet and mobile phone group and customer satisfaction. Therefore, this means that all of the demographic variables have an insignificant impact on how customers evaluate service performance. This result could also be due to the fact that the internet industry is still growing and/or it is too early to establish such relationships because the study is new to Kurdish customers. The results also indicate that there is a relationship between network availability, billing, speed, overall customer care service, ability to receive timely attention and ability to provide a resolution and customer satisfaction. The implication of this result is that network availability, billing, speed, overall customer care service, and ability to get speedy attention and the ability to provide a solution to the internet services is the most significant of all the internet service attributes in Erbil. The results therefore mean that the customer's perception of all above variables strongly affects their perception of internet operators and their satisfaction level.

Table (8)

Variables	Overall satisfaction		Chi-square test (P − value)
	Not	Satisfied	

		satisfied		
Gender	Male	56	173	12.595
	Female	18	153	(0.000)
Age group	>25	23	108	0.126
	25-30	30	130	(0.939)
	<30	21	88	
Marital-statues	Married	35	153	0.003
	Single	39	173	(0.955)
Education	Illiterate-highschool	12	43	1.464
	Diploma	19	106	(0.481)
	university	43	177	
Job	Public employment	51	200	1.478
	Self-employment	23	126	(0.224)
Income group	> 500000	48	171	3.750
	500000-700000	16	95	(0.153)
	< 700000	10	60	
Expenses	> 25000	35	146	0.821
of	25000-35000	23	93	(0.663)

Internet group	< 35000	16	87	
Expenses	> 40000	24	133	1.790
of Internet	40000-55000	21	79	(0.409)
Phone call group	< 55000	29	114	
Network availability	Not at all satisfied	48	50	80.923
	Somewhat satisfied	24	226	(0.000)
	Very satisfied	2	50	
Billing	Not at all satisfied	61	159	27.770
	Somewhat satisfied	9	128	(0.000)
	Very satisfied	4	39	
Speed	Not at all satisfied	54	94	50.849
	Somewhat satisfied	18	189	(0.000)
	Very satisfied	2	43	
Overall customer care service	Not at all satisfied	53	60	84.387
	somewhat satisfied	19	230	(0.000)
	very satisfied	2	36	

Ability to	Not at all satisfied	46	75	43.850
get quickly	Somewhat satisfied	23	210	(0.000)
attendant	Very satisfied	5	41	
Ability to	Not at all satisfied	48	63	63.722
provide a	Somewhat satisfied	20	231	(0.000)
solution	Very satisfied	6	32	

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4. Conclusion

This study aimed to investigate customer satisfaction with the internet services industry, factors influencing satisfaction and the relationship between demographic variables and customer satisfaction in Erbil, Iraqi Kurdistan. Customer satisfaction is an experience-based assessment made by customers about how far their expectations of the overall functionality of the services obtained from the internet operators have been fulfilled. With regards to customer satisfaction measurement, the results demonstrated that customers are satisfied with the performance of the Kurdish internet services industry. The interpretation of this result could be that Kurdish customers are actually satisfied with the service performance or that their satisfaction results from a lack of competing services; it could be that customers are new to satisfaction measurement and may not be able to express their perceptions accurately.The result also demonstrated that customer satisfaction level differs among specific demographic groups. Within the age groups, the younger customers were more satisfied than the older age groupor teenagers. The lower satisfaction of the

oldand teenage customers could be due to greater familiarity with internettechnology and they are therefore more demanding. Male customers showed greater satisfaction than their female counterparts. The higher satisfaction of male customers could be due to the impact of services on their functional activities. Public employees demonstrated more satisfaction than the self-employed and the higher satisfaction of public employees could be due toactual satisfaction, or a lower knowledge of internettechnology. Finally, those on a lower incomedemonstrated more satisfaction than those on a higher income. The lower satisfaction of high income customers is maybe due to a greater familiarity with information technology and therefore they are more demanding. However, internet operators need to strive to maximize customer satisfaction which in turn can influence the extent of loyalty and retention.

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