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Effect of Non-Technical Dimensions of Service Quality on "Satisfaction", "Loyalty", and "Willingness to Pay More" of the Customers: the Case of Georgian Internet Service Providing Companies

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Abstract

The aim of this paper is to measure the effects of non-technical dimensions (Empathy, Responsiveness, Assurance, Reliability, and Tangibles) on "satisfaction", "loyalty", and "willingness to pay more" of the internet service consuming customers. In this concept, a survey questionnaire was conducted on the population that utilizes the internet service of any provider. The results were evaluated by regression analysis IBM SPSS 20. It has been observed that Empathy, Responsiveness, and Assurance have significant effect on the satisfaction of the internet service consuming customers and satisfaction has significant effect on the loyalty of the internet service consumers. Finally, customers had willingness to pay more when they are satisfied and loyal, respectively.

Keywords: Non-Technical Dimensions; Service Quality; ServQual; Satisfaction; Loyalty; Willingness to Pay More; Internet Service Quality; Georgian Internet Service Quality.

1. Introduction and Literature Review

Internet service is a member of most of the families. Especially young generation cannot think a life without internet. This situation makes a big opportunity for the real market investors. Almost in every country there are at least a couple of internet service provider companies that serves internet to the individuals, households, companies…etc. However, when there is more than one company in a market, it is known that the competition starts. Companies try to find ways to attract customer to purchase service from the concerning company. In order to do that, companies must know the points those are important for the customers and then the company may make investments, improvements, marketing…etc. accordingly. By that way a company may increase the service quality and can increase the market share.

Service quality can be considered as the perception of customer(s) about meeting his/her expectations from the concerning service provision. If the service quality is the perception of the customers (De Jong et al., 2005; Yee et al., 2013, Grönroos 1998), a company must make market researches to understand customers' needs, expectations…etc. in order to satisfy the needs of the customers. Companies' one of the basic goals is customer satisfaction (Drucker, 1954). Satisfaction is exceeding of service provision over customers' expectations (Kotler, 1997; Looy et al., 2003; Su, Swanson, and Chen, 2015). Customer satisfaction depends on the service quality (Minazzi, 2008). On the other hand, "service quality" term includes various factors those may change from one culture to another. Some factors, those effect the satisfaction of the customers, may not effect in another culture. From this point, significance of those factors should be reanalyzed in every culture. In this paper these factors were determined to be tested such as Empathy, Responsiveness, Assurance, Reliability, and Tangibles.

In order to increase real service provision a head of the customers' expectations, a company should make a market research initially about the customers' expectations then whether what they are doing fulfills customers' demands or not. By this way a company attracts customers' loyalty.

Loyalty can be considered as a consequent feeling of customers about satisfaction. From this point, loyalty can be defined as continues and repeatedly satisfaction of a customer about a service or product from the behavior, shape, worth-of-mouth …etc. and repurchasing of concerning service or product (Oliver, 1999). When a customer feels loyal to a company, may will to pay more for this quality good or service rather than others companies'.

Willingness to pay more is amount of money that customer would like to pay more for a better qualified good rather than giving less to a less qualified good.

Another basic goal of the service providers can be considered as Loyalty (Najiba et Al., 2015). It can be estimated that if a customer is satisfied of the service at any company, s/he may become the loyal customer of the concerning service provider. But what is the percent of it? How much percent of the loyalty is belonging to the satisfaction? What are the factors that provide satisfaction for the concerning population? In which cases "willingness to pay more" increase in a market?

These questions can be hypothesized as;

H1a: Empathy has a significant effect on the satisfaction of the internet provider in Georgia.

H1b: Responsiveness has a significant effect on the satisfaction of the internet provider in Georgia.

H1c: Assurance has a significant effect on the satisfaction of the internet provider in Georgia.

H1d: Reliability has a significant effect on the satisfaction of the internet provider in Georgia.

H1e: Tangibles has a significant effect on the satisfaction of the internet provider in Georgia.

H2: Satisfaction has a significant effect on the Loyalty to the internet provider in Georgia.

H3a: Satisfaction has a significant effect on the willingness to pay more in Georgia.

H3b: Loyalty has a significant effect on the willingness to pay more in Georgia.
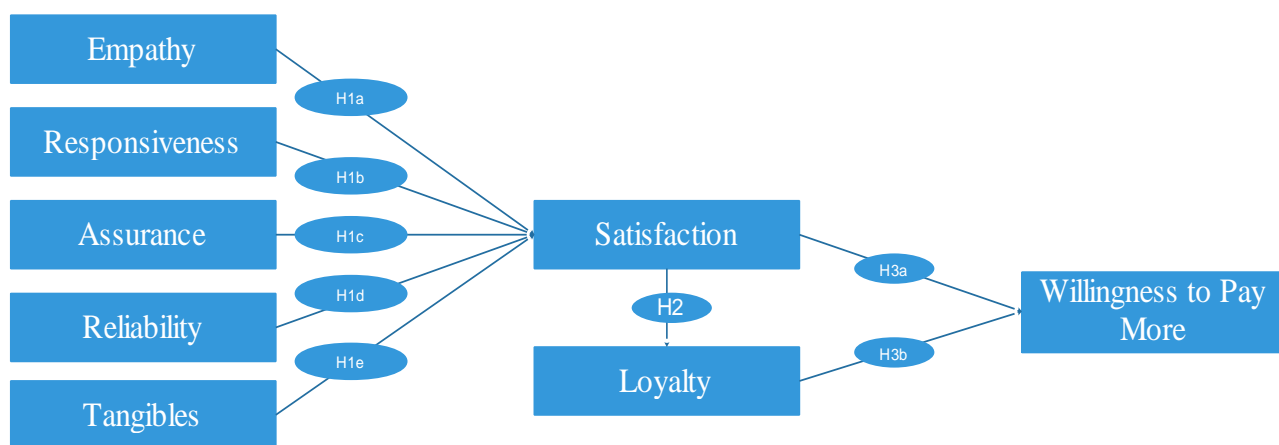
These hypotheses can be networked as;

Figure 1: Hypothesis Network Diagram

2. Methodology

Survey questionnaire was conducted in this paper in order to understand the dimensions those make a customer feel satisfied, loyal and increase the willingness to pay more. The population of the research is 247. In this population, 124 people (50.2%) were male and 123 people (49.8%) were female. 68.4% of the population was between 18 and 25 years old, 15% was 26-35 years old, 12.6% was 36-45 years old, 2% was 46-55, and remaining 2% was 55 years old or more. 7.7% of the population was utilizing Akhalteli provider, 37.2 was utilizing Caucasus provider, 36.8% was utilizing Silknet provider, 2.8% was the customer of Deltanet, 6.5% was the customer of Geonet, 4% of the population was the customers of Servicenet, and the remaining 4.9% was utilizing other internet services. 7.3 percent of the population was spending less than 20 GEL for internet service per month, 40.1% was spending 20-30 GEL, 44.1% was spending 30-50 GEL, 6.1% was spending 50-100 GEL, and remaining 2.4% was spending more than 100 GEL per month for their internet services. All this information is given as table below;

Table 1: Age of the Population				
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	169	68,4	68,4	68,4
	2	37	15,0	15,0	83,4
	3	31	12,6	12,6	96,0
	4	5	2,0	2,0	98,0
	5	5	2,0	2,0	100,0
	Total	247	100,0	100,0	

Table 2: Gender of the Population				
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	124	50,2	50,2	50,2
	2	123	49,8	49,8	100,0
	Total	247	100,0	100,0	

Table 3: Internet Service Provider Company				
	Frequency	Percent	Valid Percent	Cumulative Percent
Akhalteli	19	7,7	7,7	7,7
Caucasus	92	37,2	37,2	44,9
Silknet	91	36,8	36,8	81,8
Deltanet	7	2,8	2,8	84,6
Geonet	16	6,5	6,5	91,1
Serviceerty	10	4,0	4,0	99,6
Others	11	4,5	4,5	95,5
Total	247	100	100	100

Table 4: Money that Customers Spend Per Month for ISP				
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	18	7,3	7,3	7,3
	2	99	40,1	40,1	47,4
	3	109	44,1	44,1	91,5
	4	15	6,1	6,1	97,6
	5	6	2,4	2,4	100,0
	Total	247	100,0	100,0	

Before developing the hypothesis, the scale was proved by validity and the reliability analysis. It is known that in order to perform the validity analysis, Kaiser-Meyer-Olkin test result must exceed 0.50 (Field, 2000) and the Barlett's Test of Spherity must be significant at P≤0.05. The table below shows the results of the scale;

Table 5: KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,895
Bartlett's Test of Sphericity	Approx. Chi-Square	2524,226
	df	276
	Sig.	,000

It can be seen on the Table 5 that KMO level is 0.895 and this means the sampling is enough and we can go for the further analysis. However, Barlett's Test of Spherity is significant and this means that the factors weren't formed incidentally but significantly. Anti-Image Correlation and the extraction are the further results that should be tested.

Table 6: Descriptive Statistics				
	Mean	**Std. Deviation**	**Anti-Image Correlation**	**Extraction**
Q1	2,15	,812	0.865	0.557
Q2	2,37	,851	0.888	0.575
Q3	2,27	,858	0.909	0.644
Q4	2,49	,841	0.905	0.536
Q5	2,34	,841	0.865	0.512
Q6	2,33	,998	0.904	0.432
Q7	2,29	1,011	0.888	0.578
Q8	2,48	,938	0.904	0.626
Q9	2,42	,965	0.923	0.583
Q10	2,52	,929	0.901	0.580
Q11	2,34	1,020	0.912	0.548
Q12	2,40	,911	0.922	0.548
Q13	2,40	,988	0.916	0.585
Q14	2,25	,961	0.896	0.603
Q15	2,46	,959	0.877	0.590
Q16	2,46	,941	0.925	0.539
Q17	2,47	,967	0.926	0.578
Q18	2,59	1,029	0.892	0.565
Q19	2,56	,991	0.914	0.537
Q20	2,60	,937	0.888	0.516
Q21	2,49	,889	0.896	0.568
Q22	2,31	,882	0.905	0.695
Q23	2,54	,888	0.839	0.604
Q24	2,47	,801	0.827	0.788

Anti-Image correlation results must be greater than 0.50 (Trucker and LaFleur, 1991) and extraction result must be greater than 0.4 (Baglin, 2014). When one looks at the Table 6, can see that there is no value that breaks these rules. Otherwise some of the questions should have been taken out of the scale. For the further analysis, variance explanation table should be checked in order to see which percent of the total variance was explained by the total dimensions of the scale. The Table 7 was designed for this reason.

Table 7: Explained Variance out of Five Dimensions						
Component	**Initial Eigenvalues**			**Extraction Sums of Squared Loadings**		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8,634	35,975	35,975	8,634	35,975	35,975
2	1,775	7,396	43,372	1,775	7,396	43,372
3	1,344	5,598	48,970	1,344	5,598	48,970
4	1,170	4,875	53,845	1,170	4,875	53,845
5	1,000	4,018	57,863	1,000	4,018	57,863

Table 7 shows the dimensional explanations of the scale. This is a requirement that the each cluster of the questions must have minimum 1.000 Eigen value in order to be considered as a dimension (Velicer & Jackson, 1990). As there are five dimensions in the current scale, the Eigen values are all greater or equal to 1.000. However, five dimensions explain 57.9% of the total variance. Moreover, the distribution of the questions under the factors also should be analyzed.

Table 8: Pattern Matrix Factor Loadings						Cronbach's Alpha
	Component					
	Tangibles	**Responsiveness**	**Empathy**	**Assurance**	**Reliability**	
Q1			,662			
Q2			,732			
Q3			,785			0.774
Q4			,674			
Q5			,450			
Q6			,425			
Q7		,669				
Q8		,720				
Q9		,679				0.790
Q10		,541				
Q11		,599				
Q12				,635		
Q13				,505		
Q14				,755		0.766
Q15				,647		
Q16				,485		

Q17					,576	
Q18					,475	0.720
Q19					,505	
Q20	,624					
Q21	,698					
Q22	,761					0.826
Q23	,713					
Q24	,898					
Total Cronbach's Alpha						0.922
Total variance Explained						**57.863**

Table 8 determines the factors that each question lies under. Questions, that lie under any dimensions and have 0.3 values or more, can be accepted (Seva, 2013) or otherwise may be taken out of scale. In this paper, values are between 0.425 and 0.898 so there is no problem about the factor loadings. Secondarily, the crinbach's alpha level of the each factor should be minimum 0.700 in order to be considered as reliable (Lance, Butts, and Michels, 2006). As of all factors are greater than the concerning value, the scale can be considered as reliable in this study. For the next stage, each hypothesis was tested and resulted.

Initially, regression analysis was performed to test the factors those effect the satisfaction of the internet service consumers. It was observed that five factors (Empathy, Responsiveness, Assurance, Reliability, and Tangibles) explain 43% of the total variance of satisfaction. But not all of the factors have significant impact on satisfaction. According to the results of the regression analysis, Empathy, Responsiveness, and Assurance have significant effect on satisfaction at $P \leq 0.05$ level while reliability and Tangibles have non-significant effect. Beside the significance Assurance show the biggest importance among remaining three factors with 0.320 coefficient value and secondly comes Empathy (0.273) and Responsiveness (0.188), respectively. The results are shown on the Table 9.

Table 9: Coefficients of the Factors on Satisfaction						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,292	,169		1,727	,085
	Empathy	,273	,088	,214	3,113	,002
	Responsiveness	,188	,075	,178	2,493	,013
	Assurance	,320	,083	,289	3,875	,000
	Reliability	,021	,071	,022	,295	,768
	Tangibles	,090	,069	,080	1,306	,193
a. Dependent Variable: Satisfaction						

After these results, it can be said that H1a, H1b, and H1c has been accepted while H1d and H1e has been rejected. As of the factors, those effect the satisfaction, were determined, now the relation between the satisfaction and the loyalty was tested by simple regression analysis. As a result of simple regression analysis, it was observed that 58% of the total variance of the loyalty was explained by satisfaction. However it was seen that the satisfaction has an important impact on loyalty as a weight of 0.746. The Table 10 shows the related results as;

Table 10: Coefficient of the Satisfaction on Loyalty					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	,583	,103		5,646	,000
Satisfaction	,746	,041	,761	18,375	,000
a. Dependent Variable: Loyalty					

With this result, it can be easily said that loyalty of the internet consumers depend on their satisfaction as 58%. So H2 (Satisfaction has a significant impact on Loyalty of the internet consumers) has been accepted. Furthermore, another regression analysis test was performed in order to check whether satisfaction and loyalty of the customers have significant impact on the willingness to pay more. The results shown that internet providers have willingness to pay more as 27% of the total variance in case they are satisfied and become loyal. It means that the loyalty and the satisfaction significantly effects willingness to pay more. Although both of the factors effect loyalty significantly, satisfaction has much more effect with the coefficient of 0.506 than loyalty that has coefficient of 0.297. These results are shown on the Table 11 below.

Table 11: Coefficients of satisfaction and loyalty on willingness to pay more					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	,733	,212		3,459	,001
Satisfaction	,506	,121	,352	4,184	,000
Loyalty	,297	,123	,203	2,407	,017
a. Dependent Variable: Willingness_to_Pay_More					

These results show that H3a and H3b (Satisfaction and Loyalty has significant effect on willingness to pay more) was accepted.

Accepted and the rejected hypotheses have been networked below on the figure 2. Accepted hypothesis are in the light colors and rejected hypothesis are in the dark colors.
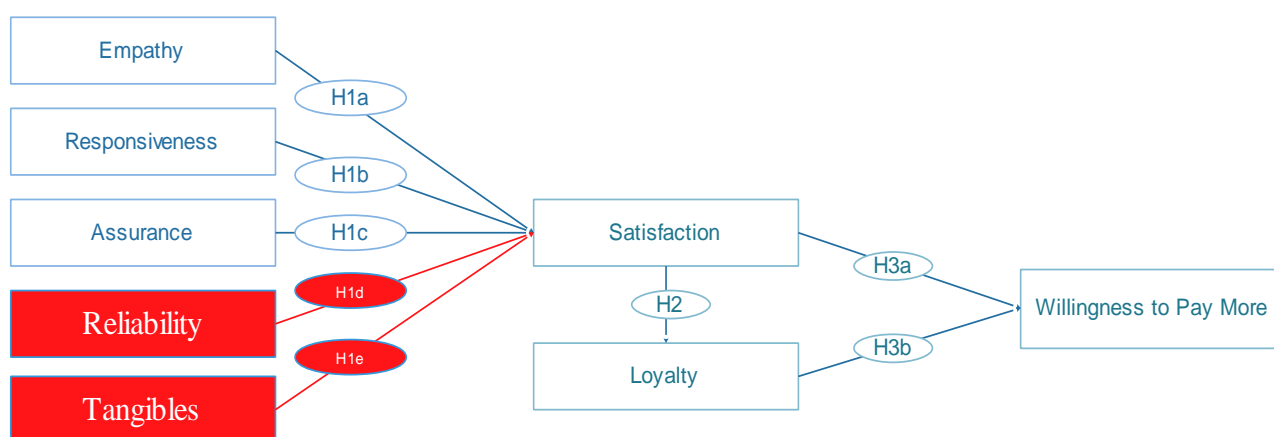

Figure 2: Network of the Accepted and Rejected Hypotheses

3. Conclusion and Discussion

First of all it was observed in this study that Empathy, Responsiveness, and Assurance dimensions have significant impact on the satisfaction of the internet service consumers. This means that anymore it is better if companies be more careful about these three factors. Beside this, Assurance is the most important factor among other two factors and then comes the Empathy and Responsiveness, respectively. It means that the customers would like to be able to ask any question to the responsible people at any time and this is important for them.

Secondly, it can be said that when customers are satisfied, they become loyal to the related internet provider company. Nevertheless, customers would like to pay more to the related company when they are satisfied and loyal, respectively. However, it can be said that if company plans strategies including Empathy, Responsiveness, and Assurance, satisfaction of the customers will be effected positively. Furthermore, if customers satisfied, they will become loyal to the concerning company. Both Satisfaction and Loyalty will positively affect the willingness to pay more of the customers for the concerning service.

Finally, in this study non-technical satisfaction parameters were elaborated and defined. For the further researches authors may include non-technical + technical service quality factors those effect the satisfaction, willingness to pay more, and loyalty of the internet consumers.

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