

# **IMPACT OF NON-TECHNICAL DIMENSIONS OF SERVICE QUALITY ON THE SATISFACTION, LOYALTY, AND THE WILLINGNESS TO PAY MORE: A CROSS-NATIONAL RESEARCH ON GSM OPERATORS**

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## **Abstract**

*Purpose of this study is to test the impact of service quality dimensions on satisfaction, loyalty, and willingness to pay more points of view with special reference to GSM operators' service quality. Furthermore, researchers compared countries from the satisfaction, loyalty, and willingness to pay more points. However, impact of satisfaction and loyalty on willingness to pay more was also tested in this research cross-nationally. Finally, countries were put in order from the satisfaction and loyalty points of view. To do these, regression analysis and ANOVA were proposed. As a result it was observed that both loyalty and satisfaction effect willingness to pay more in all countries those were included in this research. However, Iraq was the most satisfied country from the GSM service provision point. Georgia and Turkey didn't have significant difference from the satisfaction point of view. Moreover, Iraq was more loyal to the GSM service companies rather than Turkey and Georgia.*

*Keywords: Service Quality, Cross-National, ServQual, Loyalty, Customer Satisfaction, GSM Operators*

## INTRODUCTION

Telecommunication service sector is a worldwide business field all over the world. All of the firms are competing with each other to increase their market share more than the competitors. However, companies struggle to become international brand in this field. To do this, satisfaction and loyalty plays a significant role. It means the company which satisfy the customers demand and gains the loyalty of the consumers may increase the market share more. From this point of view, understanding the market plays an important role to satisfy the customers' demands and needs (Heizer and Render, 2004, P.30).

In a service business, service quality became one of the most important weapons to increase a market share. Moreover, service quality can be defined as the measurement of fulfilling the demands, needs, and expectations of the customers of concerning service (Parasuraman et al., 1985; Ratanavaraha et al., 2015). By this way customers will become satisfied because service quality is one of the most important factors for customer satisfaction (Hutchinson et al., 2009; Orel & Kara, 2014).

Satisfaction is exceeding of service provision over customers' expectations (Kotler, 1997; Looy et al., 2003; Su, Swanson, and Chen, 2015). On the other hand, in order to increase 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 catches 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.

In this study, some of the questions were answered from those points that were mentioned above such as;

Question 1: How can the satisfaction are put in order among Turkey, Georgia, and Iraq from the GSM service provision point of view?

Question 2: How can the loyalty are put in order among Turkey, Georgia, and Iraq from the GSM service provision point of view?

Figure 1: Research Framework for Turkey

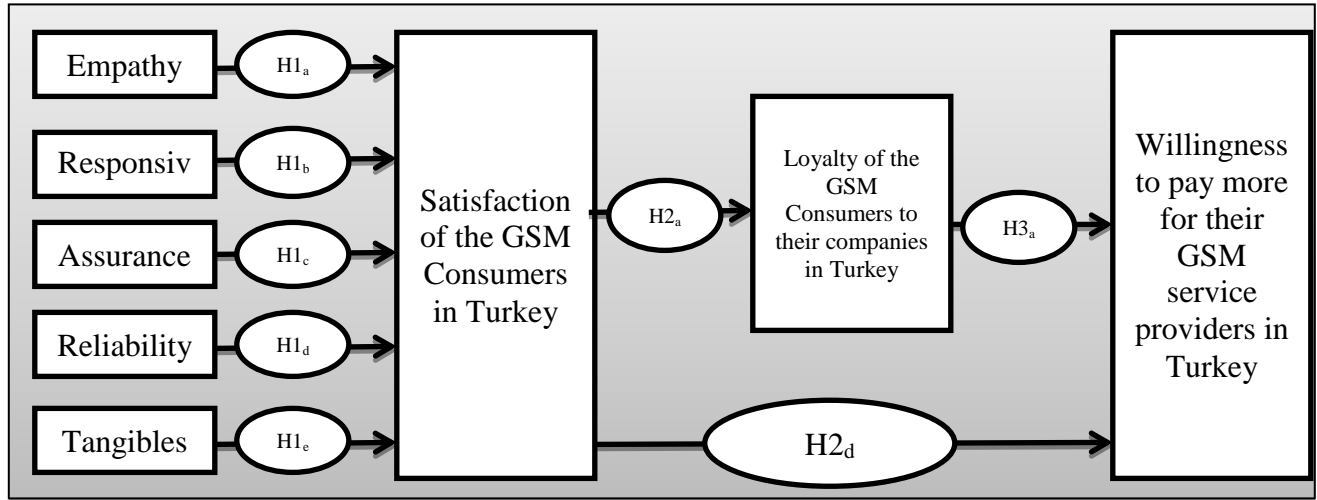


Figure 2: Research Framework for Georgia

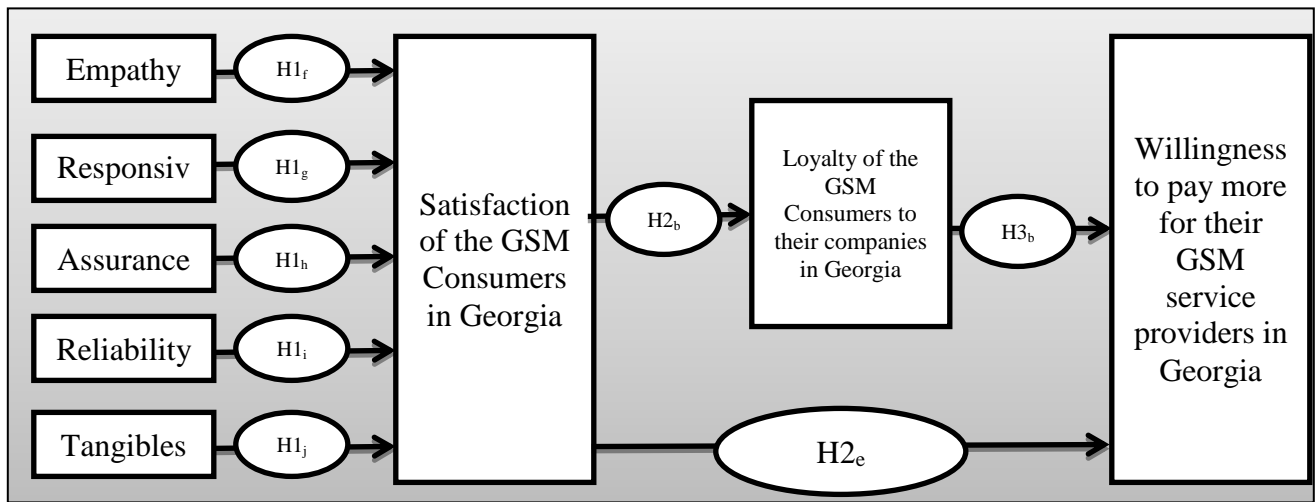
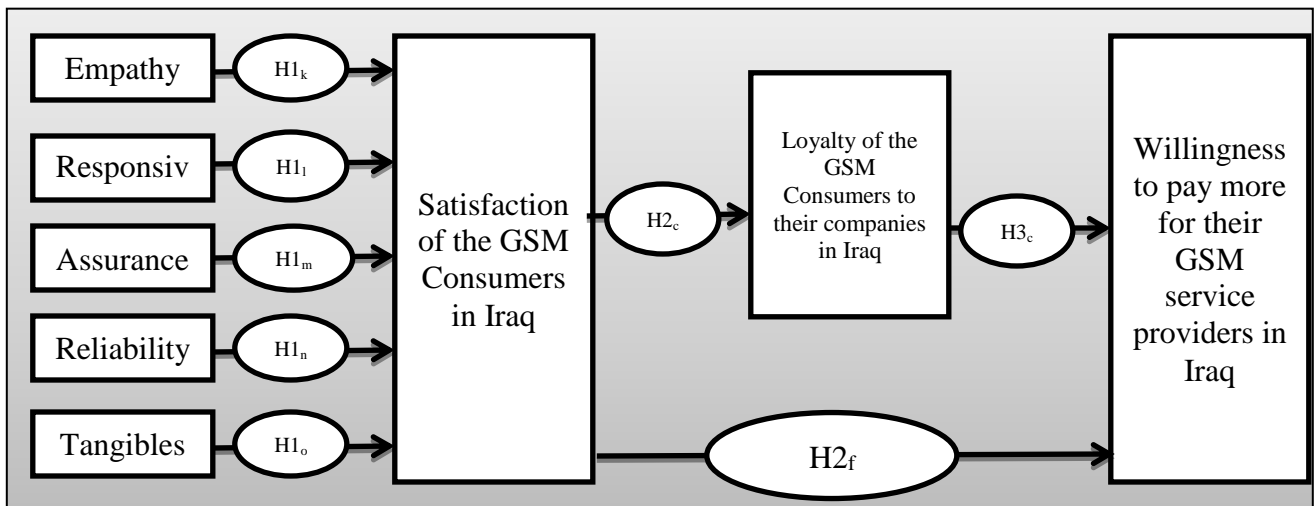


Figure 3: Research Framework for Iran



Furthermore, the hypothesis above can be defined as;

H1<sub>a</sub>: Empathy has significant impact on the satisfaction of the GSM service consumers in Turkey

H1<sub>b</sub>: Responsiveness has significant impact on the satisfaction of the GSM service consumers in Turkey

H1<sub>c</sub>: Assurance has significant impact on the satisfaction of the GSM service consumers in Turkey

H1<sub>d</sub>: Reliability has significant impact on the satisfaction of the GSM service consumers in Turkey

H1<sub>e</sub>: Tangibles has significant impact on the satisfaction of the GSM service consumers in Turkey

H1<sub>f</sub>: Empathy has significant impact on the satisfaction of the GSM service consumers in Georgia

H1<sub>g</sub>: Responsiveness has significant impact on the satisfaction of the GSM service consumers in Georgia

H1<sub>h</sub>: Assurance has significant impact on the satisfaction of the GSM service consumers in Georgia

H1<sub>i</sub>: Reliability has significant impact on the satisfaction of the GSM service consumers in Georgia

H1<sub>j</sub>: Tangibles has significant impact on the satisfaction of the GSM service consumers in Georgia

H1<sub>k</sub>: Empathy has significant impact on the satisfaction of the GSM service consumers in Iraq

H1<sub>l</sub>: Responsiveness has significant impact on the satisfaction of the GSM service consumers in Iraq

H1<sub>m</sub>: Assurance has significant impact on the satisfaction of the GSM service consumers in Iraq

H1<sub>n</sub>: Reliability has significant impact on the satisfaction of the GSM service consumers in Iraq

H1<sub>o</sub>: Tangibles has significant impact on the satisfaction of the GSM service consumers in Iraq

H2<sub>a</sub>: Satisfaction has significant impact on the Loyalty of the GSM service consumers to their companies in Turkey

H2<sub>b</sub>: Satisfaction has significant impact on the Loyalty of the GSM service consumers to their companies in Georgia

H2c: Satisfaction has significant impact on the Loyalty of the GSM service consumers to their companies in Iraq

H2d: Satisfaction has significant impact on Willingness to pay more for their GSM service providers in Turkey

H2e: Satisfaction has significant impact on Willingness to pay more for their GSM service providers in Georgia

H2f: Satisfaction has significant impact on Willingness to pay more for their GSM service providers in Iraq

H3<sub>a</sub>: Loyalty has significant impact on Willingness to pay more for their GSM service providers in Turkey

H3<sub>b</sub>: Loyalty has significant impact on Willingness to pay more for their GSM service providers in Georgia

H3<sub>c</sub>: Loyalty has significant impact on Willingness to pay more for their GSM service providers in Iraq

### **Purpose and Novelty of the Study**

Aim of this study is to perform a research on the similarities or discrepancies among the nations on the evaluation of the service quality of the GSM service providers. Authors would like to investigate whether the evaluations of the service quality, loyalty, and willingness to pay more based on the nations are different from each other or show some similarities. However it is also important to test the level of the willingness to pay more, satisfaction, and loyalty of the customers on the GSM service providers in each country. Significant effects of the age and gender on the evaluation of the service quality and the effect of it on the satisfaction are also issues to be tested.

In the literature there are many researches about evaluation of the service quality and the satisfaction-service quality relations on internet retailing (Zhang, Peterson, and Cai, 2003), airport service (Bezerra and Gomes, 2015), health care industry (Kitapci, Akdogan, and Dortyol, 2014), bank (Oncu, Kutukiz, and Kocoglu, 2010), transportation service (Celik, 2009), restaurant and café (Oyevole, 2013), Education (Rayimah and Ahmad, 2007), tourism (Simiton et Al, 2012), GSM (Hotamisli and Eleren, 2012) on national bases. But there is no Cross-National study on the GSM service provision sector. Although Vlachos et Al., (2008) has performed a research on cross-national (Korea, Japan and Hong Kong) evaluation of the internet service

provision sector, this was not related to both GSM service provision sector and Turkey, Georgia, Iraq nation group.

Novelty of this study is first of all evaluating the service quality of the GSM service providers cross-nationally. Secondly, evaluating the effects of the service quality dimensions on the willingness to pay more, satisfaction, and loyalty cross-nationally. Finally, effect of age and the gender on the satisfaction and evaluation of the service quality also will be evaluated cross-nationally in this study.

## METHODOLOGY

In this paper, data was collected via survey questionnaire conducting on the randomly selected GSM users. Researchers have asked their acquaintances from each country to fill the questionnaire online via Google. Authors submitted survey questionnaire to 992 people from Georgia, Turkey, and Iraq. People were using one of the GSM operator services those are provided in their countries. 339 people of the population were 18-25 years old, 312 of them were 26-35 years old, 157 of them 36-45 years old, 116 of them 46-55 years old, and 68 of them were 55 and more years old. Remaining details are determined on the Table 1.

Table 1: Age \* Nationality Cross-tabulation

		Nationality			Total
		Georgia	Turkey	Iraq	
Age	18-25	163	39	137	339
	26-35	39	165	108	312
	36-45	21	115	21	157
	46-55	19	97	0	116
	55+	16	52	0	68
Total		258	468	266	992

597 of the total population were male while 394 of them were female. Totally there were 258 participants from Georgia, 468 were from Turkey, and 266 people were from Iraq. The remaining details are given on the Table 2.

Table 2: Gender \* Nationality Cross-tabulation

		Nationality			Total
		Georgia	Turkey	Iraq	
Gender	Male	132	295	170	597
	Female	126	173	95	394
Total		258	468	266	992

It is important to know whether the scale that was used for this paper is valid and reliable. In order to understand this, principle components analysis and the reliability analysis were performed. However, it should be known that in order to perform principle components analysis, Kaiser-Meyer-Olkin and Bartlett's test results must be sufficient (see Table 3).

Table 3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		,948
Bartlett's Test of Sphericity	Approx. Chi-Square	12701,009
	df	276
	Sig.	,000

It is known that initially KMO level must be at least 0.50 (Field, 2000) to be able to continue for the further analysis because it shows the sufficiency of the population. In this paper, the level of KMO test is 0.948 which quite good result. Bartlett's test of sphericity shows the significance of the clustered dimensions. For this reason, the significance of the test must be positive at  $P \leq 0.05$ . In this study significance level is 0.000 so it can be said that the factors were significant. Furthermore, anti-image correlation and the extraction levels are the next stage to be carefully considered. Below the Table 4 shows the results of the concerning tests;

Table 4: Descriptive Statistics

	Mean	Std. Deviation	Anti-Image Correlations	Extraction
Q1	2,654	1,0789	0,948	0,668
Q2	3,137	1,0393	0,857	0,751
Q3	2,424	1,0279	0,948	0,595
Q4	2,464	1,0581	0,955	0,615
Q5	2,978	1,0710	0,921	0,660
Q6	2,941	,9840	0,933	0,592
Q7	2,802	1,0633	0,962	0,633
Q8	2,877	,9433	0,962	0,543
Q9	2,765	,9889	0,947	0,644
Q10	2,804	,9460	0,940	0,612
Q11	2,736	1,0902	0,969	0,558
Q12	2,746	1,0702	0,957	0,545
Q13	2,670	1,1079	0,965	0,570
Q14	2,762	,9607	0,954	0,591
Q15	2,807	1,0081	0,940	0,646
Q16	3,100	1,1151	0,887	0,756
Q17	2,691	,9998	0,963	0,590
Q18	2,743	,9987	0,963	0,659
Q19	2,764	1,0400	0,966	0,642
Q20	2,487	1,0823	0,952	0,694

Table 4....

Q21	2,594	1,0565	0,963	0,600
Q22	2,418	1,1024	0,964	0,687
Q23	2,465	1,0648	0,919	0,695
Q24	2,448	1,0867	0,917	0,724

Minimum level of the Anti-image Correlation is considered to be 0.50 (Trucker and LaFleur, 1991). However, extraction values should exceed 0.4 (Baglin, 2014) not to extract any question from the scale. In this study, minimum level of the anti-image correlation is 0.857 and the maximum is 0.964 so these levels are quite good for the anti-image correlation. However, extraction values are between 0.543 and 756 so this means that there is no need to take any question out of the scale.

Loading values of each question that lies under a factor also plays critical role on the evaluation of the validity of a scale so it is needed to check the results of Table 5;

Table 5: Pattern Matrix

	Component					Cronbach's Alpha
	Tangibles	Responsiveness	Empathy	Assurance	Reliability	
Q1			,484			0,807
Q2			,866			
Q3			,580			
Q4			,698			
Q5			,706			
Q6			,382			
Q7		,747				0,815
Q8		,541				
Q9		,843				
Q10		,842				
Q11		,596				
Q12				,455		0,787
Q13				,385		
Q14				,578		
Q15				,735		
Q16				,960		
Q17					,510	0,795
Q18					,609	
Q19					,609	
Q20	,729					0,892
Q21	,660					
Q22	,783					
Q23	,943					
Q24	,968					
Eigen Values	10,255	1,937	1,211	1,120	1,103	Total Variance
Variance Explained	42,729	8,071	5,046	4,166	3,627	Explained 63,631



It is known that the factor loading values must be minimum 0.3 (Seva, 2013). In this study, minimum factor loading value is 0,382 and maximum value is 0,968. According to this result it can be said that no need to take any question out of questionnaire. However, reach factor's Cronbach's alpha results are more than 0,700 and it means that they show sufficient reliability of the dimensions (Lance, Butts, and Michels, 2006). Furthermore, each factor must Eigen value more than 1,000. Moreover, in this paper the dimensions explains 63.6% of the total variance. All of the test results have shown that this questionnaire is valid and reliable. Furthermore, hypothesis will be tested by proposing regression analysis and ANOVA tests.

Initially, effects of the Empathy, Responsiveness, Assurance, Reliability, and Tangibles on satisfaction is to be evaluated one by one cross-nationally. To do this, multiple regression analysis is performed.

### Case of Turkey

According to the results of the regression analysis, in Turkey satisfaction of the GSM service customers can be explained as 70% with the dimensions of Empathy, Responsiveness, Assurance, Reliability, and Tangibles. This means that those variables effect the satisfaction of the GSM service users as 70 % in Turkey. On the other hand, it was observed on the Table 6 that Empathy, and Reliability has Significant impact on the satisfaction of the GSM service consumers while

Table 6: Coefficients of the service quality on satisfaction in Turkey

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-,038	,116		-,328	,743
	Empathy	,189	,058	,126	3,246	,001
	Responsiveness	,052	,065	,035	,802	,423
	Assurance	,025	,055	,019	,448	,655
	Reliability	,793	,048	,693	16,417	,000
	Tangibles	,027	,042	,023	,639	,523

Responsiveness, Assurance, and Tangibles didn't effect significantly. Beside this, Reliability is the most important dimension that has the significant effect on satisfaction and then comes Empathy. Furthermore, satisfaction explains the 64% of the total variance on the loyalty of the GSM service consumers. This means that if a customer who uses the GSM service is satisfied by a company, 64% may become the loyal customer of the concerning company. Over and above, this impact is significant at  $P \leq 0.05$  and coefficient of the satisfaction is 0.858.

Table 7: Coefficient of satisfaction on loyalty in Turkey

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	Satisfaction	,858	,030	,802	28,965	,000

a. Dependent Variable: Loyalty

Willingness to pay more for a GSM service provider rather than others depends on the loyalty and satisfaction as 40%. However, both satisfaction and loyalty have significant effect on the willingness to pay more for one of the GSM service provider rather than others. On the other hand, Loyalty has more impact (0,452) than satisfaction (0.370) on Willingness to pay more. Table 8 shows the details. According to these results, H1<sub>a</sub>, H1<sub>d</sub>, H2<sub>a</sub>, H2<sub>d</sub>, and H3<sub>a</sub> were accepted and H1<sub>b</sub>, H1<sub>c</sub>, H1<sub>e</sub> were rejected

Table 8: Coefficient of satisfaction and loyalty on willingness to pay more in Turkey

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	Satisfaction	,370	,049	,299	7,503	,000
	Loyalty	,452	,049	,369	9,266	,000

a. Dependent Variable: Willingness\_to\_Pay\_More

### Case of Georgia

It was observed on the case of Georgia that 36% satisfaction of the GSM service customers are by those five dimensions of the service quality. But Empathy, Assurance, and Tangibles have significant impact while Responsiveness and Reliability don't effect significantly. Beside this, Empathy is the most important effect with the weight of (0.320) and then comes Assurance (0.283) and Tangibles (0.203), respectively. Remaining details are determined on the Table 9.

Table 9: Coefficients of the service quality on satisfaction in Georgia

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	Empathy	,320	,095	,235	3,380	,001
	Responsiveness	,016	,085	,013	,186	,853
	Assurance	,283	,090	,233	3,136	,002
	Reliability	,080	,077	,071	1,036	,301
	Tangibles	,209	,080	,175	2,611	,010

a. Dependent Variable: Satisfaction

Satisfaction has 52% of effect on the loyalty to the concerning SGM service company. Over and above, this effect is significant at  $P \leq 0.05$ .

Table 10: Coefficient of the satisfaction on loyalty in Georgia

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
	Satisfaction	,696	,042	,722	16,674	,000

a. Dependent Variable: Loyalty

27% of the willingness to pay more is belonging to the Satisfaction and loyalty to the concerning GSM service provider. Both satisfaction and loyalty affect willingness to pay more significantly. On the other hand, loyalty has a bit more impact (0.439) than satisfaction (0.407) on willingness to pay more (Table 11). According to these results, H1<sub>a</sub>, H1<sub>c</sub>, H1<sub>e</sub>, H2<sub>b</sub>, H2<sub>e</sub>, and H3<sub>b</sub> were accepted and H1<sub>b</sub> and H1<sub>d</sub> were rejected.

Table 11: Coefficients of the satisfaction and loyalty on willingness to pay more in Georgia

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
	Satisfaction	,407	,113	,277	3,603	,000
	Loyalty	,439	,117	,288	3,747	,000

a. Dependent Variable: Willingness\_to\_Pay\_more

### Case of Iraq

In Iraq, five dimensions of the service quality have only 25% of effect on the satisfaction of GSM service consumers. Responsiveness, Reliability and Tangibles affect satisfaction significantly while Empathy and Assurance not. Furthermore, tangibles have the most important dimension that affect satisfaction, then Reliability and Responsiveness comes respectively.

Table 12: Coefficients of the dimensions of the service quality on satisfaction in Iraq

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	Empathy	,099	,072	,084	1,385	,167
	Responsiveness	,170	,081	,127	2,107	,036
	Assurance	,059	,087	,043	,679	,498
	Reliability	,221	,081	,187	2,739	,007
	Tangibles	,306	,086	,232	3,558	,000

Satisfaction effects loyalty of the GSM service consumers as 35%. This means that the remaining percent of variance on the loyalty lies under different dimensions. However, the effect of the satisfaction on loyalty is significant.

Table 13: Coefficient of the satisfaction on loyalty in Iraq

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
		1	(Constant)	,545		
	Satisfaction	,765	,064	,593	11,953	,000

a. Dependent Variable: Loyalty

Satisfaction and the loyalty plays 42% of the role on the willingness to pay more for the concerning GSM service provider. Although both of the dimensions plays significant role on the willingness to pay more, loyalty seems to be more important (0.478) than satisfaction (0.255). Table 14 shows details. According to these results, H1<sub>b</sub>, H1<sub>d</sub>, H1<sub>e</sub>, H2<sub>c</sub>, H2<sub>f</sub>, and H3<sub>c</sub> were accepted and H1<sub>a</sub> and H1<sub>c</sub> were rejected.

Table 14: Coefficients of the satisfaction and loyalty on willingness to pay more in Iraq

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
		1	(Constant)	,712		
	Satisfaction	,255	,070	,210	3,632	,000
	Loyalty	,478	,054	,508	8,767	,000

a. Dependent Variable: Willingness\_to\_Pay\_more

These are the case of the concerning countries about satisfaction, loyalty, and willingness to pay more for the concerning GSM service provider. However, these cases were separately explained. On the other hand, it is also important to determine the satisfaction level of the countries about the overall GSM service providers. For this reason, ANOVA test was performed to check the results (Table 15).

Table 15: ANOVA results

Satisfaction					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	116,548	2	58,274	68,787	,000
Within Groups	837,847	989	,847		
Total	954,395	991			

It can be seen that there are significant differences from the significant result of ANOVA test. It means that there are significant differences among the satisfaction levels of the GSM service consumers in different countries. But this table doesn't show the details so Tukey test or Tamhane test results must be obtained. In order to select the type of the test, homogeneity test results play an important role. If the homogeneity test results exceed (0.05), Tukey test results will be considered and otherwise Tamhane test must be performed.

Table 16: Test of Homogeneity of Variances

Satisfaction			
Levene Statistic	df1	df2	Sig.
5,225	2	989	,006

Homogeneity test results show that Tamhane test results must be considered because "sig." value is less than 0.05. Tamhane test results are obtained and shown on the Table 17;

Table 17: Multiple Comparisons Results

Dependent Variable: Satisfaction							
	(I) Nationality	(J) Nationality	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tamhane	Georgia	Turkey	-,09906	,06803	,377	-,2620	,0638
		Iraq	-,83217*	,07687	,000	-1,0163	-,6480
	Turkey	Georgia	,09906	,06803	,377	-,0638	,2620
		Iraq	-,73311*	,07237	,000	-,9064	-,5598
	Iraq	Georgia	,83217*	,07687	,000	,6480	1,0163
		Turkey	,73311*	,07237	,000	,5598	,9064

\*. The mean difference is significant at the 0.05 level.

It can be easily seen that GSM service consumers in Iraq are more satisfied with the GSM service operators in their countries rather than Turkey or Georgia. Furthermore, although Turkey seems to be a bit more satisfied than Georgia, this difference is not significant. Loyalty level of the customers also will be tested via same models.

Table 18: ANOVA test results

Loyalty					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	114,465	2	57,233	65,935	,000
Within Groups	858,470	989	,868		
Total	972,935	991			

It seems that there are some differences among the loyalty of the nations to GSM service providers in their countries. However more details are needed to make some detailed comments.

Table 19: Test of Homogeneity of Variances

Loyalty			
Levene Statistic	df1	df2	Sig.
19,146	2	989	,000

Homogeneity results show that Tamhane test results must be considered. The results are shown on the Table 20.

Table 20: Multiple Comparisons of the Loyalty

Dependent Variable: Loyalty								
		(I) Nationality	(J) Nationality	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Tamhane	Georgia	Turkey		-,12661	,06848	,182	-,2906	,0373
		Iraq		-,83944*	,07279	,000	-1,0138	-,6651
	Turkey	Georgia		,12661	,06848	,182	-,0373	,2906
		Iraq		-,71282*	,07169	,000	-,8845	-,5412
	Iraq	Georgia		,83944*	,07279	,000	,6651	1,0138
		Turkey		,71282*	,07169	,000	,5412	,8845

\*. The mean difference is significant at the 0.05 level.

According to these results, it shows the same picture of sequencing the nations about the satisfaction of GSM service providers. Iraq seems to be the most loyal to their GSM service providers significantly at  $P \leq 0.05$  and then comes Turkey and Georgia. It seems that there is no significant difference between Turkey and Georgia about the loyalty to GSM service providers.

## CONCLUSION AND DISCUSSIONS

As a conclusion, it can be said that in Turkey Empathy, and the Reliability are the factors among five those affect the satisfaction as 70% at GSM service users. Remaining dimensions such as Responsiveness, Assurance, and Tangibles don't have significant effect. In Georgia 36% of the satisfaction comes by Empathy, Assurance, and Tangibles significantly while Responsiveness and Reliability don't. In Iraq five dimensions of the service quality have only 25% of effect on the satisfaction of GSM service consumers. However, Responsiveness, Reliability, and Tangibles seems to be effecting satisfaction significantly in Iraq while Empathy and Assurance not. It can

be said in this situation that these five dimensions are somehow effecting the satisfaction of the GSM service consumers but in different measures of the variances. However, it can also be said that in all countries the same variances don't affect the satisfaction. It also changes from culture to culture, nation to nation and so on.

Satisfaction has 64% of the significant effect on the loyalty in Turkey. The effect of the satisfaction on the loyalty is significantly 52% in Georgia and 35% in Iraq. It can be said that in all countries satisfaction has significant effect on the loyalty but in different measures and importance.

Loyalty and satisfaction initiates willingness to pay more as 40% and significantly in Turkey. In Georgia this value becomes 27% and in Iraq 42%. It also can be said that in all of these three countries loyalty makes more sense on willingness to pay more rather than satisfaction.

Among three countries, it was observed that Iraq is the most satisfied country than Georgia and Turkey from GSM service point of view. Of course consequently, Iraqi GSM users are more loyal to their companies than remaining two countries.

These results show that satisfaction and loyalty levels about a service changes from one country to another. It means that the service quality levels are not the same in all countries.

The reasons of these results are the topic of another paper. For the further researches, authors can investigate the reasons of these results. Because it was seen that while the percentage of the explained variances at regression analysis were decreasing from country to country, the satisfaction level was increasing as wise versa.

There were of course some limitations about this research. The frequency distribution of the sampling can be more homogeneous. For example distribution of ages of the GSM users could be more close to each other. Furthermore, number of the countries included into this research was only 3. This number can be enlarged more and the results might be reevaluated.

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