# Service Quality Dimensions and Customer Satisfaction in Telecommunication Companies

Anwar Adulalem Alhkami<sup>1\*</sup> and Ali Saleh Alarussi<sup>2</sup>

<sup>1</sup>University Science and Technology Yemen

<sup>2</sup>Visiting Senior Lecturer- TISSA-Universiti Utara Malaysia, Malaysia and Sana'a University, Yemen

\*Corresponding author's email: shaamml2000 [AT] yahoo.com

ABSTRACT— The purpose of this paper is to empirically examine the affect of service quality dimensions on the customers' satisfaction in Telecommunication companies in Yemen. These dimensions are tangibility, reliability, responsiveness, assurance and empathy. By using five Likert scale, a set of questionnaire was distributed to 400 customers who are currently using the telecommunication companies' services in Yemen. Linear regression analysis is used to examine the association between the service quality dimensions and customer satisfaction. The results showed that almost the majority of the customers satisfied with services provided by telecommunication companies and all the service quality dimensions are positively and significantly associated with customers' satisfaction. The finding of this paper may help telecommunication companies to maintain their customers and to enhance its

Keywords—Service Quality, SERVQUAL model, Telecommunication, Customers,

performance.

220, 1100 2 2011.00 2 2011. 2011. 1000., 1010001111. 1010. 10

# 1. INTRODUCTION

Any business depends on its customers to success and to continue in the future. Nowadays, companies of all industries aware of the importance of their customers and consider them as the most valuable asset that companies rely on for their continuity. Service companies are holding a major share in the market for the whole world, and there is a growing demand for services in the world economy. However, service quality is very important issue because it allows companies to differentiate themselves from their competitors, this leads to enhance the satisfaction among customers and employees. Therefore, companies and researchers direct their efforts to figure out and understand the determinants that customers considered when they look at the quality of services, as well as how these determinants translate into customers' satisfaction and behavioural intentions. Satisfaction among customers is an important issue for persistence service organizations which is strongly connected with quality of that service (Bolton & Drew, 1991). In most cases, customer satisfaction is determined as the essential dimension of business success and most organization nowadays are more concerning with service quality which have an effect on customer to be interested and satisfied with the organization (Bolton and Drew, 1991; Lee, & Hwan, 2005). Organizations believe that excellent service is profitable strategy, this is because it will attract more new customers, more business, more insulation from price competition, and less mistakes requiring the performance of services (Ugboma, Oqwude, & Nadi, 2007). The willingness of customer to maintain and keep relationship with a firm is dependent on his or her perception of the benefits of getting a high-quality service that continue the flow of value (Carrillat, Jaramillo, & Mulki, 2007).

The success factor in telecommunication companies is more complex in a competitive market; this is because service providers are expected to compete on both price and quality of services in order to meet the consumers' expectation which is change from time to time (Melody, 2001). In short, previous research suggested that service quality is an important indicator of customer satisfaction and service quality is one of the most important research topics on a large scale in services (Zeithaml 2000; Gallifa & Batalle,2010). The concept of service quality can assist the managers by providing them with general understanding of how consumers are likely to evaluate the quality of their business (Aydin, Özer, &Arasil, 2005; Howat et.al., 2008). In addition, due to the growing number of customers with fact that the customer's satisfaction is an important element for consideration by the administration, the purpose of this research is to examine the relationship between five dimensions of service quality (Tangibles, Reliability, Responsiveness, Assurance, and Empathy) and customers' satisfaction in telecommunication companies in Yemen.

# 2. LITERATURE REVIEW & HYPOTHESES DEVELOPMENT

Nowadays, Organizations, in order to survive due to global competition, have to attract and maintain enough customers through providing them a high quality of services. In this case, companies have to pay attention for their customers' satisfaction as there are many ways that affect it. In Yemen, due to rapid growth in mobile industry, a number of operators start their business however, the severe competition among Telecommunication service industry pushed companies to concentrate on their local and international customers as no actual products involved in some cases (Zammuto et al, 1996). Based on study of Zeithaml et al (1990), most of literature about service quality focuses on the perceived quality, which is a result of comparing service expectation of current customer with their perceptions of actual performance, and Parasuraman et al. (1991) stated that reliability in the service quality is basically related to the outcome of service while tangibles, assurance, responsiveness, and empathy were concerned with the process of service delivery. Thus, companies must care more and invest considerable amount on programs that lead to increase their customers (Sattari et al. 2010), and this can be happened by understanding the features of quality embraced by the customers.

Service quality and customer satisfaction are basically different concepts; quality is seen as a goal attitude, while satisfaction is related to particular transactions (Gruber, Voss, & Glaser-Zikuda, 2010). Cronin et al. (2000); and farrel et al. (2001) relate perceived quality as an antecedent to satisfaction, while other authors such as Parasutaman et al., (1988) and Bitner, (1990) view customer satisfaction as antecedent to service quality. Majority of recent publications; Yavas et al (2004), Carrillat et al (2007), Zeithaml et al (2008) believe that service quality is an antecedent to customer satisfaction and has a positive impact on their satisfaction. Parasuraman, Zeithmal and Berry, (1994) find that one basic determinant of the customer satisfaction is service quality. Spreng et al. (1996) also support the previous findings and find a significant relationship between service quality and satisfaction.

SERVQUAL model is used to measure both service expectations and perceptions. The extent of the service provided that meet or exceed the expectations of the customer will probably determine whether the customer is likely to be satisfied. According to this model that has been developed to conceptualize service quality, it estimates the expectations of customers' pre-consumption for a particular service as well as post-consumption of actual service receive. The scale measures five dimensions of service quality, which includes reliability, responsiveness, assurance, empathy and tangibles. In the SERVQUAL model, expectations referred to what customers could anticipate from excellent firms. The consequential gap represents a measure of the level of service quality; the narrower gap represents the higher level of service received. Parasuraman et al. (1985) explain the connection between size of the gap and concept of service quality, he suggests that poor service presents wide gap because customers expects were exceed what is delivered for them, this gap getting narrower when customers find services matched with their expectation. Parasuaman, Zeithaml, and Berry (1985) determine (10) dimensions of service quality including tangibles, reliability, courtesy, responsiveness, security, competency, access, communication, credibility, and understanding, based upon a series of focus group studies. Lately, in 1988, they summarized these (10) dimensions to (5) which are: tangibles, assurance, reliability, responsiveness, and empathy. Figure 2.1 and the next part of literature explain these dimensions.

# 2.1. Tangibles

It refers to the appearance of physical factors such as equipment, facilities used by a service company as well as to the appearance of service employees. Aspects in the tangible factor are for example has up-to-date equipment, physical facilities are visually appealing and materials are visually appearing. Tangibles relate to the physical cues that are a component part the service delivery process (Zeithaml et al, 2000; O'Neill & Palmer, 2003). Based on the above discussion the first hypothesis as follows:

H1: There is a significant relationship between Tangibles and customer satisfaction in telecommunication companies.

# 2.2. Assurance

The assurance refers to the employees' skills and capabilities, and whether these skills and capabilities gain the trust and confidence of the customers? If the customers are comfortable with company's employees, this indicates that customers will return to do further business with the company. Assurance also involves the following features such as competence, politeness, effective communication and general attitude that serve customer effectively and efficiently. The behaviour of staff gives customers confidence in the company that makes customers feel safe as long as the staff are respectful and always have the necessary knowledge to answer customer questions. In addition, assurance dimension of SERVQUAL dresses the competence of the organization, the courtesy extended to its customers, and the operational security. Competence belongs to the knowledge and skills of the organization in performing its service. Their knowledge and the way they interact with the customer inspires confidence in the organization (Gao & Wei, 2004). Based on the above discussion the second hypothesis can be formed as follows:

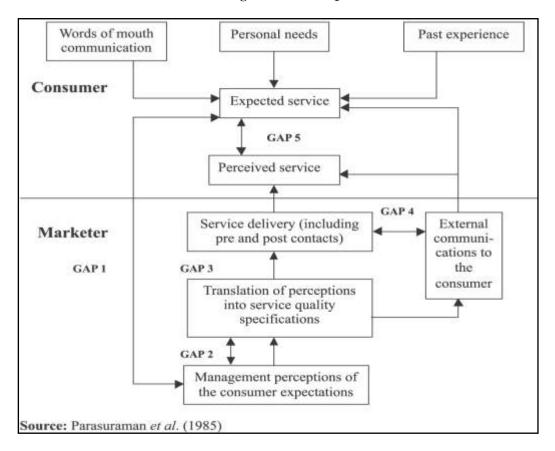


Figure 2.1:SERVQUAL Model

#### 2.3. Assurance

The assurance refers to the employees' skills and capabilities, and whether these skills and capabilities gain the trust and confidence of the customers? If the customers are comfortable with company's employees, this indicates that customers will return to do further business with the company. Assurance also involves the following features such as competence, politeness, effective communication and general attitude that serve customer effectively and efficiently. The behaviour of staff gives customers confidence in the company that makes customers feel safe as long as the staff are respectful and always have the necessary knowledge to answer customer questions. In addition, assurance dimension of SERVQUAL dresses the competence of the organization, the courtesy extended to its customers, and the operational security. Competence belongs to the knowledge and skills of the organization in performing its service. Their knowledge and the way they interact with the customer inspires confidence in the organization (Gao & Wei, 2004). Based on the above discussion the second hypothesis can be formed as follows:

H2: There is a significant relationship between Assurance and customer satisfaction in telecommunication companies.

### 2.4. Reliability

The reliability Service Quality Dimension refers to how the company are performing and completing their promised service, quality and accuracy within the given set requirements between the company and the customer. It means that the company provides a service to its customer at a time without making any errors and delivers what it promised during the time that was agreed upon. Reliability is considered as the most important dimension of service quality (Zeithaml, 2000). Based on the above discussion the third hypothesis can be stated as follows:

H3: There is a significant relationship between reliability and customer satisfaction in telecommunication companies.

# 2.5. Responsiveness

The responsiveness Service Quality Dimension refers to the willingness of the company to help its customers in providing them with a good, quality and fast service. This is also a very important dimension, because every customer feels more valued if they get the best possible quality in the service. It also means that the employees of a service organization are ready to help customers and respond to their demand as well as to notify customers when service will provide, and then give quick service. If a service fails to occur, the ability to recover quickly and professionally can generate very positive perceptions of quality (Hernon & Nitecki, 200). Based on the above discussion the fourth hypothesis can be stated as follows:

H4: There is a significant relationship between responsiveness and customer satisfaction in telecommunication companies.

#### 2.6. Empathy

The empathy refers to how the company cares and gives individualized attention to their customers, to make the customers feeling extra valued and special. It includes access, communication and understanding the needs of customer. It is concerned with providing care and individual attention for customer. In this dimension, the organization understands the problems of customers and results in their favour, as well as customers with individual personal attention. Empathetic organization didn't lose touch of what it is like to be a customer of their own organization. As such, empathetic organizations understand the needs of their customer and make their services accessible to them. Parasuraman et al. (1985) defined empathy as the caring and individual attention the firm provides its customers. It involves giving customers individual attention and employees who understand the needs of their customers and convenience business hours. Based on the above discussion the fifth hypothesis is stated as follows:

H5: There is a significant relationship between empathy and customer satisfaction in telecommunication companies.

#### 3. RESEARCH METHODOLOGY

# 3.1 Research Design

The collection of date in this research was by using survey method where questionnaire used to collect and gathered the information. The quantitative date only is generated from structured closed- ended questions. The questions are administered to a sample of selected customer's using the telecommunication services in Yemen.

#### 3.2 Date Collection Methods

The questionnaire is used as the most important tool to gather date from the respondent. The advantages of using questionnaire include the relatively low cost and facts of anonymity among respondents that will lead to more open and truthful responses. Researcher will distribute the questionnaire through website and hardcopy to the target respondents and then collect it for analysing. The questionnaire is stated by Arabic and English languages in order to be fully understandable. The questionnaire consists of three parts:- the demographic factor, the perception of service quality in the field of Telecommunication and the facilities provided by the companies in this field and last parts is about measuring customer satisfaction. In section A, five questions cover from subjects of gender, age, occupation, status, Telecom company using in Yemen, duration of using the service. Followed by section B: the perception of service quality, and section C: customer satisfaction in the telecommunication company in Yemen. The instrument in this research is based on Parasuraman et al (1990) however, some of the items used were extracted from LeBlance and Nguyen (1997) using the five dimensions in service quality (Tangibles, Reliability, Responsiveness, Assurance, and Empathy) using also the Likert scale from 1 for strongly disagree at all to 5 for strongly agree. Population of this study is all customers who use telecommunication service in Yemen. This research will have the size of the sample that are more than 200 and less than 500 which are suitable for most research because large sample give more reliable results than smaller samples.

#### 4. RESULTS AND DISCUSSION

The total questionnaires that have been randomly distributed via emails to respondents were 400 and 340 were fully answered. This gave the research a response rate of 85 percent (Table 1).

-			Total	%
Questionnaires	distributed	Collected	400	100
questionnaires			340	85

The survey was carried out for two weeks in the month of June 2013.

Based on table 2 below it shows the demographic data of respondents which is 230 respondents are male with a percentage of (67.6%) and 110 of respondents are female (32.4%). Respondents who are aged between 19-25 years old are 61 (18%), those who are between 26-30 are 125 and represented (37%) of respondents, aged between 31-35 years old are 69 with a percentage of (20%), and lastly respondents who aged 36 and above are 85 with percentage of (25%). For result of customers occupation, it shows that students using the telecommunication service with a total number of 170 (50%), and 70 (20%) are working in public sector, and 85 (25%) are working in private sector, and lastly others jobs represented by 15 (5%). Respondents were 104 (31%) Yemen Mobile Co., MTN 118 (26.5%), Sabafon 67 (20%) and Y's customers represented 51(15%). The duration of using the service represented more than one year is 30 (9%), more than two years 60 (18%), more than three years 100(29%), and more than four and more 150 (44%)

Table 2 Respondents' Profile

Background	Categories	Frequency	Percentage(%)
Gender	Male	230	67.6
	Female	110	32.4
Age group	19-25 years	61	18
	26-30 years	125	37
	31-35 years	69	20
	36 years/ above	36	25
Occupation	Student	170	50
•	Public sector	70	20
	Private sector	85	25
	Other	15	5
Telecommunication Company	Yemen mobile	104	31
you are using:	MTN	118	26.5
, .	Sabafon	67	20
	Y	51	15
Duration of using the service	More than one year	30	9
C	More than two years	60	18
	More than three years	100	29
	More than four years	150	44

#### 4.1 Main Findings

According to the table 3, it demonstrates that the mean of Tangibility is equal to 3.4063 that are equal to 3. This means that generally most of the respondents agree with tangibles, and this can be seen also with Reliability, Responsiveness, Assurance and Empathy which indicates that customers are satisfied and agree with the services provided by the Telecommunication companies in Yemen.

Table 3. Descriptive statistics

	N	Minimum	Maximum	Mean	<b>Std.Deviation</b>
Tangibility	340	2.00	5.00	3.4063	0.47636
Reliability	340	2.67	5.00	3.5025	0.51631
Responsiveness	340	2.17	5.00	3.3492	0.45542
Assurance	340	2.00	5.00	3.6719	0.49503
Empathy	340	2.00	5.00	3.3281	0.56120
	340	2.40	5.00	3.4917	0.58120
Customers Satisfaction					
Valid N	340				
	340				

# Perceived Tangibility

As pervious section, there are four items have been used in order to determine customer satisfaction with the tangible dimension of service quality and that the respondent's average for service quality was satisfied with the tangibility dimension.

Table 4. Descriptive Results of Tangibility (N=340)

	Item	Mean	SD
1.	Equipments used by the company are up to date	3.4063	0.77417
2.	When customers have problems, the company is sympathetic and re assuring	3.4344	0.56718
3.	The facilities offered by the company are usually appealing	3.2000	0.69300
4.	Employees at the company are always well dressed and look tidy	3.4781	0.57056
5.	The materials associated with the company are visually appealing	3.5125	0.60289
	Total Mean Tangibility	3.4063	0.47696

Table 4 shows the descriptive statistics for each factor. Starting from using up to date equipment along with the Mean and SD values, and ending with the materials associated with the company are visually appealing. As per the table, the highest mean value represented by the fifth factor which is The materials associated with the company are visually appealing (Mean=3.5125, SD=0.60289). Looking to the table, we can say that customers seem that they have a moderate level of satisfaction with the service quality in terms of tangible services.

#### Perceived Reliability

Five factors have been used in this research to examine customer's perceived satisfaction with the reliability of service quality of the company and the average of respondents show that they are satisfied with the reliability of service quality.

Table 5 Descriptive Results of Reliability (N=340)

	Item	Mean	SD
1.	Employees of the company are always willing to help customers when customers have problems	3.5719	0.62434
2.	Employees of the company provide their services at the time they promised to do	3.5438	0.62695
3.	The company provides accurate information and services as they promised	3.7625	0.69919
4.	I am highly dependable to the information and services the company provide to me	3.2750	0.72094
5.	The materials associated with the company are visually appealing	3.3594	0.65215
	Total Mean Reliability	3.5025	0.51631

Table above shows descriptive statistics for reliability factors along with Mean and SD values. As a result it can be concluded that overall mean on reliability dimension (mean = 3.5025, SD = 0.51631) shows that the perceived level of satisfaction for customers with service reliability they are perceived by the companies is moderately high level.

# Perceived Responsiveness

As for responsiveness dimension of service quality, Four items used to determine customer satisfaction and the results show that respondent's average for service quality was satisfied the responsiveness dimensions, and that on average of the four dimension of responsiveness is rated (Mean = 3.3492, SD = 0.45542). Table 6 shows the descriptive statistics for each factor. Employees of the company always willing to help the customers, this item came at higher level of (Mean = 3.4469, SD = 0.63615) while The employees in the company give prompt service to customers, comes in low level of (Mean 3.2219, SD = 0.69762), In summary, customers seem that they have a moderate level of satisfaction with the service quality in terms of responsiveness services.

Table 6 Descriptive Results of Responsiveness (N=340)

	Items	Mean	SD
1.	Employees in the company tell customers exactly when services will be performed	3.3531	0.62120
2.	Employees of the company always willing to help the customers	3.4469	0.63615
3.	The employees in the company give prompt service to customers	3.2219	0.69762
4.	Employees are never too busy to responds to customers requests	3.3750	0.62598
	Total Mean Responsiveness	3.3492	0.45542

# Perceived Assurance

Again to be mentioned, in this research four items have been used in order to determine customer satisfaction with the assurance dimension of service quality and the results indicated that the respondent's average for service quality was satisfied with the assurance dimension, and that on average of the four dimensions of assurance is rated (mean = 3.6719, SD= 0.49503). Table shows the descriptive statistics for each factor. Out of the four factors, the item which states that employees of the company can be trusted is reported at higher level of (Mean = 3.9094, SD= 0.66335), followed by customers' feeling of safety when dealing with the company (mean = 3.7469, SD = 0.64448), employee willingness knowledge to answer customers' questions is also perceived at moderately higher level (mean = 3.5406, SD= 0.63708), and employees are courteous with customers also perceived at moderate level (mean = 3.4906. SD= 0.57637). in general, students seem that have a moderate level of satisfaction with the service quality in terms of assurance services.

Table 7 Descriptive results of assurance (N=340)

	Items	Mean	SD
1.	Employees in the knowledge to answer customers' questions	3.5406	0.63708
2.	Employees of the company are courteous with the customers	3.4906	0.57637
3.	The employees in the company can be trusted	3.9094	0.66335
4.	Customers feel safe when dealing with the company	3.7469	0.64448
	Total Mean Assurance	3.6719	0.49503

#### Perceived Empathy

Empathy dimension to determine customer's level of satisfaction used five items and resulted that respondent's average for service quality was satisfied with the empathy dimension and is reported on average (Mean = 3.3281, SD=0.56120).

Table 8 Descriptive Results of Empathy (N= 340)

	Items	Mean	SD
1.	Company staff give customer personal attention	3.3063	0.67184
2.	The company has operating hours convenient to their customers	3.3875	0.82278
3.	Employees of the company understand the specific needs of their customers	3.3063	0.67184
4.	The company places the customers' best interest at heart	3.3281	0.78494
5.	Employees in the company value respect and individual attention	3.3125	0.73162
	Total Mean Empathy	3.3281	0.56120

The above table shows the descriptive statistics for each factor, the suitability operating hours of the company to its customers is indicating at higher level of (M=3.3875, SD=0.82278). 1 and 4 items have the same and lowest level of Mean and SD (3.3063, SD=0.67184). In general, customers are showing a moderate level of satisfaction with service quality in terms of empathy dimension of services provided by the companies.

#### Customer' satisfaction

Lastly, as the overall quality of services was measured and showed that services provided by the companies are in good quality. Now, for Customer satisfaction, three items have been used to measure customers' satisfaction, and that the average of perceived level of satisfaction of respondents about the services were reported (Mean = 3.4917, SD= 0.58120).

Table 9 Descriptive results of satisfaction (N=340)

	Items	Mean	SD
1.	I am satisfied with the overall services provided by the company	3.5938	0.62645
2.	I am satisfied with the way I treat in by the company employees	3.4188	0.69905
3.	I am satisfied with the information and services provided by the employees of the company	3.4625	0.74604
	Total Mean Satisfaction	3.4917	0.58120

Above table shows Descriptive results of satisfaction, the satisfaction with overall services provided by the companies which got highest mean (3.5938, SD= 062645). The results show that most of customers are satisfied with overall services provided by the company.

#### Pearson Correlation Coefficient

According to Sekaran (2005), in doing any research project which has several variables, further than knowing the means and standard derivation of the variables (dependent and independent variables), the researcher would often like to recognize how one variable is related to another. Inter-correlation analysis indicates the nature, direction and significance of the bivariate relationship of the variables used in the research. This research examines the nature of the relationship that exists between independent and dependent variables. To determine the relationship amongst the variables, person correlation was run. Between the variables there could be a perfect positive correlation found between two variables, which is represented by 1.0 (plus1), or a perfect negative correlation which would -1.0 (Minus 1). Whereas, correlation might range between -1.0 and +1.0, the researcher conducted this research to know if any correlation found between two variables is significant or not (i.e; if it has occurred solely by chance or if there is a high probability of its actual existence). As for the information, a significance of p= 0.05 is the generally accepted conventional level in social sciences research. This implies that 95 times out of 100, the researcher can be sure that there is a true or significant correlation between the variables, and there is only a 5% chance that the relationship does not truly exist. Davis (1997) projected the rules of thumb that need to be used in interpreting the R- value obtained from intercorrelation analysis as shown in Table 10 below.

Table 10: interpreting the R-value for Intercorrelations

R-value	Relationship	
Above 0 70	Very strong relationship	
0.50 - 0.69	Strong relationship	
0.30 - 0.49	Moderate relationship	
0.10 - 0.29	Low relationship	
0.01 - 0.09	Very low relationship	

As previously mentioned, there are five hypotheses formulated for present research, to test the first five hypotheses, correlation test was used, looking to the results all hypotheses are supported, and tell a significant and positive relationship between customer satisfaction and service quality dimensions. According to the results found, it shows the correlation matrix between dependent variable and independent variables are edited in Table 11 below.

Table 11 Pearson Interco relations Matrix Result.

	Perception of the customers			
Tangibility	0.531**			
Reliability	0.707**			
Responsiveness	0.712**			
Assurance	0.590**			
Empathy	0.692**			

<sup>\*.</sup> Correlation is significant at the 0.05 level (2 – tailed)  $p \le 0.05$ 

The finding from correlation analysis shows that all the dimensions of service quality which are tangibility, reliability, responsiveness, assurance and empathy are highly and positively correlated with customer satisfaction. This is a good sign to run further analysis by using linear regression as follows:-

Tabla	12.	Coefficients
Lame	1 / .	Coemcienis

	Standardized Coefficients				
	Beta	Std. Error	Df	F	
Mean A	0.531	0.58	1	124.771**	
Mean B	0.707	0.045	1	317.725***	
Mean C	0.712	0.50	1	327.432***	
Mean D	0.590	0.53	2	169.566**	
Mean E	0.692	0.42	1	292.843***	
R Square		0.500			
Adjusted R Square		0.498			
ANOVA		0.000			
Std. Error of the Estimate (		0.41170			
F		317.725			

Predictors: (Constant), Mean E, mean A, Mean B, mean D, mean C, Dependent variable's mean F

The table shown above indicates that the R square= 0.500 and this means that the percentage of the variability between service quality dimensions is equal to 50% that is explained to good influence service quality dimension on customers satisfaction.

#### 4.2. Result Discussion

The results show that all the independent variable which are significantly correlated to satisfaction of the customers with coefficient alpha < .001 and .005. The results support SERVQUAL model (Parasuraman et al., 1988), and support earlier studies in different societies and for different sectors (see for example; Saravana & Rao, 2007; Rahim, Osman and Ramyah., 2010; Pandey and Joshi, 2010; Fah and Kandasamy, 2011; Al Khattab and Aldehayyat, 2011). Beta results explain the significance of the five independent variables to customers' satisfaction, the explanation in more details as follows:-

Hypothesis 1: There is a significant relationship between Tangibility and customer satisfaction. The relationship investigated using linear regression analysis shows that there is a strong positive relationship between the two variables (r= 0.531, n= 340, p< 0.005). Hence, hypothesis cannot be rejected. Hypothesis 2: There is a significant relationship between Reliability and customer satisfaction. Linear regression analysis shows that there is a very strong positive correlation between the two variables (r=0.707, n= 340, p<0.01). Thus, hypothesis cannot be rejected. Hypothesis 3: There is a significant relationship between Responsiveness and customer satisfaction. There is a very strong positive correlation between the two variables (r= 0.712, n= 340, p<0.01). Therefore, hypothesis cannot be rejected. Hypothesis 4: There is a significant relationship between Assurance and customer satisfaction. Based on Linear regression analysis, there is strong positive correlation between the two variables (r= 0.590, n= 340, p<0.005). Accordingly, hypothesis cannot be rejected. Hypothesis 5: There is a significant relationship between Empathy and customer satisfaction. Linear regression analysis shows that there is strong positive correlation between the two variables (r= 0.692, n= 340, p<0.01). Accordingly, hypothesis cannot be rejected. Therefore, it's helpful for Telecommunication companies to improve the areas of services that customers showed less satisfaction.

# 5. CONCLUSION

In order to satisfy the customers, this study conducted in one of undeveloped countries in the world, Yemen. Customer's satisfaction is very important for any company because it helps company to sustain the performance in the market, and as telecommunication market becomes an important business in current days of globalization, determining and assessing customers' satisfaction is not that easy mission to achieve, however it's helpful for Telecommunication companies in Yemen to improve the areas of services that customers showed less satisfaction and care more about the all negative feedbacks particularly if it come from company's staff, administration and customers. This paper empirically examines the association between five service quality dimensions which are tangibility, reliability, responsiveness, assurance and empathy and customer satisfaction in Telecommunication companies in Yemen. The data collected through questionnaire distributed to 400 random customers. SPSS analysis program is used through using linear regression analysis, the companies should focus its attention on the dimensions of services quality that can influence customers' satisfaction and affect their word communication. Telecommunication companies should evaluate services quality continuously to create perceptions of uniqueness in minds of customers and to gain competitive advantage in market place. The finding of this research will help also the telecommunication companies in Yemen to provide its customers with better services in future and increase the number of customers that considered vital for future success and organizational performance.

#### Recommendations and Future research

The size of the sample for this research is not enough to determine the level of satisfaction toward the services provided. The sample has been chosen randomly and the respondents were not completely collaborating with the research to answer the questionnaire, therefore, research has opened door for further research. It is clearly evident from our findings that services provided by telecom in Yemen doing well, but it should sever even better.

<sup>\*\*</sup> Correlation is significant at 0.01 level (2- tailed)  $p \le 0.01$ 

<sup>\*\*\*</sup> Coefficient less than 0.001

<sup>\*\*</sup> Coefficient less than 0.005

# 6. REFERENCES

- Al Khattab, S.A. and Aldehayyat, J.S. (2011), "Perceptions of Service Quality in Jordanian Hotels", International Journal of Business and Management, Vol. 6, No. 7, pp. 226-233.
- Aydin, S., Özer, G., & Arasil, Ö. (2005). Customer loyalty and the effect of switching costs as a moderator
- variable: A case in the Turkish mobile phone market. Marketing Intelligence & Planning, 23(1), 89103.
- Armstrong, G.& Kotler, P. (1996), Principles of marking (seventh edn.), Prentice Hall, India.
- Bitner, M. J.(1990). Evaluating service encounters; the effects of physical surroundings and employee responses. *Journal of Marketing*. 54(2), 69-82.
- Bitner, M.J. and Hubert, A.R. (1994), Encounter satisfaction versus overall satisfaction versus quality, in Rust, R.T. and Oliver, R.L. (Eds), Service Quality: New Directions in Theory and Practice, Sage Publications, London, pp. 72-94.
- Bolton, R., & Drew J.H.(1991). A Longitudinal Analysis of the Impact of Service changes on Customer Attitudes. *Journal of Marketing*. 55, 1-9.
- Carrillat, F.A, Garamillo,F. and Mulki, J.P.(2007) "The validity of the SERVQUAL and SERVPEREF scales: a meta-analytic view of 17 years of research across five continents". *International Journal of Service Industry Management*, Vol. 18 No. 5, pp. 472-90.
- Carrillat, F.A, Garamillo,F. and Mulki, J.P.(2009). Examining The Imact of Service Quality: a meta-analytic of Empirical Evidence. *Journal of Marketing Theory and Practice*, 17(2), 95-110.
- Cronin, J. J., Jr., Brady, M. K., & Hult, G.T. M. (2000) Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments. Journal of Retailing, 76. 193–218
- Dawes,j., AND Rowley ,J. (1999). Negative evaluations of service quality a framework for identification and response. *Journal of Marketing Practice: Applied Marketing science*, 5(20. 46-55.
- Fah, L.K. and Kandasamy, S. (2011), "An investigation of service quality and customer satisfaction among hotels in Langkawi", Proceedings of International conference on management (ICM 2011), Penang, Malaysia, pp. 731-749.
- Farrell, A.M., Souchon , A.L. and Durden , G.R. (2001), "service encounter conceptualization:, . *Journal of Marketing Management*, Vol. 17, pp. 577-93.
- Howat, G., Crilley, G., & MeGrath, R. (2008). A focused service quality, benefits, overall satisfaction and Loyalty model for public aquatic centers. *managing leisure*, 139-161.
- Hernon, D. A. Nitecki. (2001). Service Quality: A Concept Not Fully Explored Library Trends. 49(4): 687-708
- Gallifa J. & Batalle P., (2010) "Student perceptions of service quality in a multi-campus higher education system in Spain", Quality Assurance in Education, Vol. 18 Iss: 2, pp.156 170.
- Gao, Y.. & Wei, W. (2004). Measuring Service Quality and Satisfaction of Student in Chinese Business Education. The Sixth Wuhan International Conference on E-business.
- Gruber, T., Fuß, S., Voss, R. & Glaser-Zikuda, M. (2010). "Examining Student Satisfaction with Higher Education Services Using a New Measurement Tool," International Journal of Public Sector Management, 23 (2). 105-123
- Lee, M. C., & Hwan, I.S. (2005) . Relationship among Service Quality, Customer Satisfaction and Profitability in the Taiwanese banking Industry . *International Journal of Management*, 22(4), 635-648.
- LeBalnc G. & Nquyen N. (1997) "Searching for excellence in business education: an exploratory study of customer impressions of service quality", International Journal of Educational Management, Vol. 11 Iss: 2, pp.72 79
- Melody. (2001). Service Quality and Customers Preference of Cellular Mobile Service Providers. Journal of Technology Management & Innovation © Universidad Alberto Hurtado, Facultad de Economía y Negocios, p 40
- S. Marković, S. Raspor Janković (2013) Exploring the relationship between Service Quality and Customer Satisfaction in Croatian hotel industry. Tourism and Hospitality Management, Vol. 19, No. 2, pp. 149-164.
- O'Neill, M. and Palmer, A., Importance-performance analysis: a useful tool for ... Managing Service Quality, Vol 13 (3), 2003, pp 187-196, ISSN 0960-4529
- Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49(4), 41-50.
- Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1988), "SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality", Journal of Retailing, Vol. 64, No. 1, pp. 14-40.
- Parasuraman, A., Zeithaml, V.A. and Berry, L.L.(1991), "Refinement and reassessment of the SERVQUAL scale". *Journal of Retailing*, 67(4), 420-50.
- Pandey, D. and Joshi, P.R. (2010), "Service Quality and Customer Behavioral Intentions: A Study in the Hotel Industry", California Journal of Operations Management, Vol. 8, No. 2, pp. 72-81.

- Rahim Mosahab, Osman Mahamad, T. Ramayah (2010) Service Quality, Customer Satisfaction and Loyalty: A
  Test of Mediation. *International Business Research Vol. 3, No. 4*
- Sakaran, U., (2005). Research Method of Business; A skill Building Approach, 4<sup>th</sup> edition, *John*
- Wiley and Sons, Inc .New York.
- Sattari S., Sangari E.S. & Peighambari K. (2010.), Service Quality in the Iranian Cellular Telecommunication Market.
- Spreng RA, MacKenzie SB, Olshavsky RW. (1996) A reexamination of the determinants of consumer satisfaction. J Mark ;60(3):15 32.
- Ugboma, C., Ogboma, O., Nadi, K. (2007). Service quality and satisfaction measurements in Nigerian ports: an exploration . 34(4), 331-346.
- Wang I.M.& Shieh Chich J.(2006) The relationship between service quality and customer satisfaction: the example of CJCU library. Journal of information & Optimization Sciences. Vol. 27 (1): 193-209.
- Yavas, U., Benkeney ,M. & S tuhldreier, U. (2004). Relationships between service quality and behavioral outcomes. *The International Journal of Bank Marketing*, Vol. 22. No. 2, pp. 144-57.
- Zeithaml V. A., Parasuraman A, Berry Leonard L. (1990). Delivering quality service: balancing customer perceptions and expedition.
- Zeithaml V. A. (2000). "Service Quality, Profitability, and the Economic Worth of Customers: Whal We Know and What We Need to Learn". *Journal of the Academy of Marketing Science*. 28(1),. 67-85.
- Zeithaml V. A., Bitner, M. J & Gremler, D. D. (2008), Services Marketing: Integrating Customer Focus across the Firm, 5<sup>th</sup> Ed., *MeGraw-Hill, Boston*, MA.