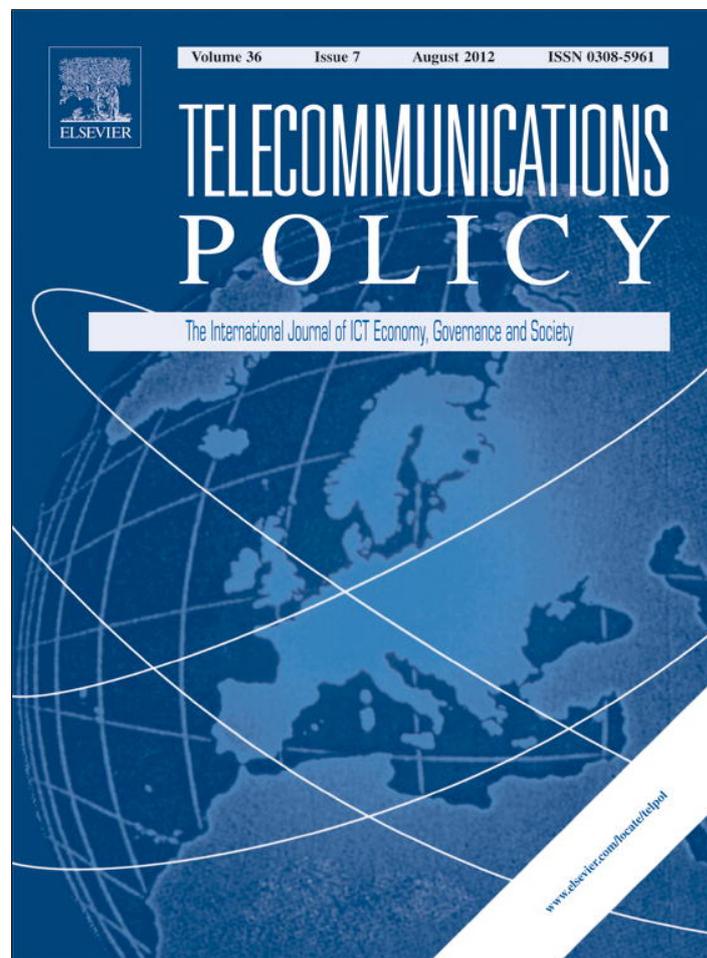


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# Telecommunications Policy

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## A study of service quality in rural ICT renters of Iran by SERVQUAL

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### ABSTRACT

The development of rural telecommunication services in Iran has been a major and national concern during the past few years. Towards the national planning and in a giant movement, 10 000 centers have been established in rural areas. Because of the novelty of such centers, the authors try to measure the service quality of the rural ICT centers using the SERVQUAL model. The results can be used towards the betterment of the services. Five hypotheses including tangibility, accountability, guarantee, empathy and reliability of service were examined. Twenty four ICT centers were selected in Rasht city as sample. Considering common sense or perception, 63% of the subjects evaluated the quality of services as average. In terms of quality, empathy was ranked as the ideal dimension followed by tangibility, certainties, trust, and guarantee, respectively. However, the least appropriate dimension of quality was given to accountability. In terms of expectation, the highest percentage of individuals, that is, 92% believed that quality of services was important, and believed that among the components of quality indices from the most to the least important items were: reliability, tangibility, accountability, guarantee, and empathy consecutively. This research showed that the SERVQUAL model can be used for determine the quality of services offered by Tele-centers in rural areas.

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### 1. Introduction

Since modern technology has caused the service industry to skyrocket along the trade and business, quality management has become more and more important. Barriers such as service disappearance, inseparability of service from its provider, location and occasion of services, have led the service quality to be related to ambiguous and relative parameters; hence the concept of quality has become extremely complex to measure (Batson, 1997; Ekinci & Riley, 1998; Hang & Bradley, 2002).

ICT as one of the infrastructural sector of service industry is increasingly developing all over the globe. Like many other countries, the development of ICT has been a primary part of national planning in Iran. To attain this goal, the authorities have tried to provide all villages with necessary equipment for ICT and in a giant national step 10 000 villages have been equipped with ICT centers by the ministry of Communication Technology and Information. Since rural ICT centers are in their infancy, like any innovative technology they have their own short comes in such a beginning stage. Obviously quality principle can be used to recognize the clients' expectations and by measuring the quality of services, it would be possible

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to understand the pros and cons of provided services in order to satisfy the clients by providing them with the best quality services.

The main purpose of this study was find out how applicable the SERVQUAL model is in the context of rural ICT centers, and describe how the clients perceive service quality and whether they were satisfied with services offered by these tele-centers in Iran. This study contributes to the already existing studies examining service quality in rural ICT centers using the SERVQUAL model and provides empirical results that could guide managements to take corrective actions that lead to growth in these tele-centers.

The result showed that SERVQUAL model fit this subject and was suitable for measure the quality of service offer in tele-centers.

After the introduction, the rest of this paper is organized as follows: Section 2 presents the reviewing the literature on client's satisfaction and service quality. This is followed by the review of SERVQUAL model and familiarity with rural ICT centers. The methodology of the study is presented in Section 3 that provide an introduction of the area of study, method of data collection, data analysis and the validity of SERVQUAL questionnaire. In Sections 4 and 5, the results obtained are gathered and discussed and finally, in Section 6, the paper illustrates the main conclusions obtained in the study.

## 2. Review of literature

Each organization is trying to provide the best quality to its clients. Service quality has features such as intangibility, heterogeneity, and inseparability (Kano, 1996; Ladhari, 2009). Furthermore Service quality is an important area because of its relevancy to service companies and therefore many researchers have tried to develop various models to measure it, even though some claim it is hard to measure because of its intangibility which is hard to quantify (Eshghi, Roy, & Ganguli, 2008; Douglas & Connor, 2003).

Quality has many different definitions and there is no universally acceptable definition of quality (Hardie & Walsh, 1994; Dabholkar, Shepherd, & Thorpe, 2000; Sower & Fair, 2005; Wicks & Roethlein, 2009).

In this study the authors have adopted the definition by Parasuraman, Zeithaml, and Berry (1985), which defines service quality as the discrepancy between a customers' expectation of a service and the customers' perception of the service offering (Parasuraman et al., 1985; Sheth, Deshmukh, & Verat, 2004).

Study of service quality began in 1980 when Grönroos (1984) developed the first model to measure service quality. He identified three components of service quality; the technical quality is concerned with what is delivered (outcome), the functional quality deals with the process of service delivery (how it is delivered) and the image quality which is identified as corporate image of company resulting from both technical and functional qualities of service components (Grönroos, 1984).

Later Parasuraman et al. (1985) proposed SERVQUAL model. This model represents service quality as the discrepancy between a customer's expectations of service offering and the customer's perceptions of the service received. This makes it an attitude measure. The SERVQUAL model was made of ten dimensions of service quality, but later on these dimensions were reduced to five because some dimensions were overlapping. These dimensions mainly focus on the human aspects of service delivery (responsiveness, reliability, assurance, and empathy) and the tangible of service (Parasuraman et al., 1985).

Considering the SERVQUAL model, Cronin and Taylor (1992) proposed SERVPERF model uses the performance approach method which measures service quality based on customer's overall feeling towards service. This model is good to measure service quality but does not provide information on how customers will prefer service to be in order for service providers to make improvements (Cronin & Taylor, 1992).

Teas (1994) believes that previous models have conceptual, theoretical and measuring difficulties and developed the evaluated performance model which measures the gap between perceived performance and the ideal amount of a dimension of service quality, rather than the customer's expectation (Teas, 1994).

Gradually other models were proposed to explain and measure service quality for instance feature model proposed by Dabholkar et al. (2000) focused on specific features such as banking, internet, and similar services including automated self service. Brady, Cronin, and Brand (2002) suggested that clients grasp their perception of service quality based on their evaluation of multilevel. They proposed their model in which quality of service was defined in terms of interaction, physical environment, and outcome quality.

According to study carried out by Ladhari (2009) it was recommended that the SERVQUAL model was a good scale to use when measuring service quality in various specific industries but that it was appropriate to choose the most important dimensions of this model that fit to that particular service being measured in order to assure reliable and valid results. In this regard, the authors used this model because it takes into account customer's expectation of a service as well as perceptions of the service which is best way to measure service quality in service sector (Shahin, 2005).

### 2.1. The review of SERVQUAL model

SERVQUAL, stands for service quality, was coined by Parasuraman, Zeithaml, and Berry (as cited in Caruana and Ewing (2000)). Applying five categories to define service quality, they devised a method through which service quality can be measured from the view point of clients. Since then such a method has been commonly used as SERVQUAL in literature of quality of services. In 1985, Parasuraman et al. picked out 10 aspects to define service quality. They consisted tangibility, reliability, responsiveness, communication, credibility, security, merit, politeness, appreciation of client, and accessibility.

Then in 1988, they summarized the ten previous aspects into five ones (Andaleeb, 1998; Allan, 2003; Batson, 1997). They were as follows:

1. Reliability: The ability of service providers to fulfill their commitments continuously and accurately.
2. Responsiveness: The willingness and accountability of the service providers to support their clients.
3. Empathy: The intimacy with the clients and understanding of their individuals' feelings and problems.
4. Assurance: The competence and skill of the staff of an organization to give confidence and trust to the clients.
5. Tangibility: The tidiness and appearance of assets and property of an organization including its staff (Zeithaml & Bitner, 1996).

They founded their model on the above mentioned categories comparing the clients' expectations before receiving the service and after it were provided to see whether the promise was fulfilled or not (Parasuraman, Zeithaml, & Berry, 1988). Optimization was the ambition of the organization in such a model (Bodvarsson & Gibson, 2002; Andaleeb, 1998).

SERVQUAL model was also called gap analysis model (Allan, 2003). Simply because as it was mentioned previously, the gap between expected service and what was achieved portrays whether the client was fulfilled or not (Pizam & Ellis, 1999). According to this model, lack of service quality can be attributed to five quality gaps during the process of service provided (Swartz, 1988; Brown & Churchile, 2000).

Conclusively, the evidence shows that to measure the service quality, there has been a prolonged major challenge to see whether the quality of service should be on the basis of clients' perception or his/her refusal (Teas, 1993; 1994; Parasuraman, Zeithaml, & Berry, 1994; Cronin & Taylor, 1992).

Since 1988 the SERVQUAL scale has been broadly applied in various researches to measure the service quality and its psychoanalytical aspects have been checked (Babakus & Boller, 1991) including rescuing, hotels, hospitals and clinics, libraries, banks, post offices, tourism, etc. Bojanic and Rosen (1994) have used such a model in services provided in restaurants and Saleh and Ryan (1991) has used the similar model to measure the services provided in hotels. Buttle (1996) made mentions of several researchers that have used the SERVQUAL model in various industries and education.

Negi (2009) used the model to determine customer satisfaction through perceived quality in the telecommunication industry and found out that reliability, empathy and network quality proved to significantly effective in contributing to overall service quality and overall customer satisfaction with mobile services.

Kumar, Kee, and Manshor (2009) used the SERVQUAL model in a research to determine the relative importance of critical factors in delivering service quality of banks in Malaysia. In this article, they realized that there were four critical factors; tangibility, reliability, convenience and competence. These variables had significant differences between expectations and perceptions with tangibility having the smallest gap and convenience having the largest gap (Kumar et al., 2009).

Badri, Abdulla and Al-Madani (2005) made an assessment and application of the SERVQUAL model in measuring service quality in information technology centre in the United Arab Emirates. Their findings showed that there was an inadequacy of dimensions for a perfect fit. On the other hand, respondents felt that SERVQUAL was a useful indicator for IT center service quality in institutions of higher education. SERVQUAL identified gaps in service quality for the three institutions.

Curry and Sinclair (2002) in an attempt to assess the quality of physiotherapy services used the SERVQUAL model in Dundee, Scotland. They found out that the services were highly appreciated by customers even though they realised that the perception gaps were slightly negative and the services could be improved. Their studies proved that assurance and empathy were very important in their research. In spite of the criticisms of the SERVQUAL model they confirm its potential applicability in measuring service quality in the public sector to determine consumer priorities and measure performance.

Akan (1995) used the SERVQUAL model in the four stars hotels and found out that competence and courtesy combined with assurance were most important attributes influencing the perception of quality.

Although the results of the above mentioned studies have provided support for the SERVQUAL model, so far no study has been conducted to verify the reliability and validity of such a model (scale) in rural ICT centers of Iran.

The main purpose of this study was to test the SERVQUAL model in the context of the rural ICT centers of Iran in order to know its applicability the measurement of service quality and customer satisfaction. This was done by investigating the reliability and validity of the SERVQUAL model in rural ICT centers environment.

## 2.2. Familiarity with rural ICT centers

Generally, tele-centers<sup>2</sup> were developed to provide public places with information and technology and equip public offices with computers, modems, printers, scanners, digital libraries, fax machines, photocopiers, and other electronic services (Suzuki & Shankariah, 1998). Such ICT centers differ in terms of their administration, organization and the kind of services they provide (Proenza, Buch, & Montero, 2001). Financially, they may be either private or public (Morten & Anyimadu, 2003). The first ICT center was established in a village in Sweden in 1984 to prevent emigration from the countryside (Suzuki & Shankariah, 1998) and gradually similar centers expanded from Europe to other parts of the world to provide services remotely. Private sector has had various plans to establish ICT centers in rural areas of Iran, including

<sup>2</sup> In Iran they named Information and Communication Development Center

the first village called Shahkooh which has access to the internet and the comprehensive center of applied ICT in Qarnabad village. In addition in 2003 in collaboration with UNDP and the program management and planning organization towards the application of information technology for achieving sustainable human development four villages in Iran were equipped with ICT centers. According to program management and planning organization, the first national project in Iran in this regard was the establishment of 10 000 ICT centers in villages in 2003. It was added that, the government was going to establish 2000 more centers each year up to the end of Iran's fourth national plan. In total, 10 000 rural ICT centers should be established in villages with more than 500 population. To equip such offices \$18 000 was allocated per office to provide online services, postal, banking, communication, and local networking as e-government services.

### 3. Methodology

The present study has an ex-post facto design whose population was the clients of rural ICT centers in Rasht city in Iran. Due to the breadth of population, among the total of 65 villages that have tele-center, 24 centers were calculated as sample size using Cochran formula with level of error of measurement of 5%, which were selected randomly. To increase the accuracy and accountability of the study, users were limited to those with the range of age between 20 to 55 years old. In total 238 subjects were selected randomly.

#### 3.1. Introduction of the area of study

The study was conducted in Rasht city in the north of Iran. According to the national census done in 2008 this city had a population of 857 606 persons, 603 442 of whom were city dwellers and 254 164 inhabited in the districts of the countryside. The area consisted of 6 towns, 6 districts, 18 villages and 292 hamlets. In terms of communication index, there are 26 post boxes, 21 post offices, 124 telephone centers, 65 internet café, that is, public offices to access the Net, 136 public transportation offices, and 13 centers to deliver newspapers and periodicals in the countryside of Rasht.

#### 3.2. Data collection

The authors at first had to revisit the research objectives and determine what information needs to collect the data. According to this approach the following hypotheses were made.

1. Tele-centers in target area are well-equipped.
2. Services are not fully reliable in tele-centers in target area.
3. The staffs in tele-centers in target area are not responsive enough to their clients.
4. The staff in tele-centers in target are not come tent enough to attract the client's reliance.
5. The staffs in tele-centers are well-behaved toward their clients.
6. From the view point of clients of tele-centers in target area, the effects of physical dimensions, that is, tangibility, reliability, responsiveness, assurance, and empathy on the quality of services provided are the same.

SERVQUAL norms were applied in the process of data collection. The original SERVQUAL questionnaire consists of 22 paired questions each aimed at finding the respondents' opinions pertaining to the expectations and perceptions of service quality; prepared based on 5 items on the scale of Likert covering five categories of quality of services (Parasuraman et al., 1988).

In this study the authors have not changed the original SERVQUAL instrument but have however rephrased the statements to be context relevant, and then to be adapted to working conditions of the staff of ICT centers after the personnel were interviewed technically. Eventually, the final format of the questionnaire was prepared consisted of 29 items. Five questions regarding tangibility, five questions regarding credibility, and four, six and seven questions to assess accountability, assurance, and empathy on quality of services respectively. The last two items dealt with client's satisfaction.

Because of being closed-ended and multiple-choice in nature of all the questions the results of the questions were easy to compare, tabulate and analyze easier. In the questions the 5-point Likert-scale where the respondents were asked to select the most appropriate number that corresponds to extent to which they agree with a statement was used. The scales in this survey questions were 1 to 5 with 1 denoting strongly disagree and 5 denoting strongly agree.

Users were selected randomly to fill out the questionnaire in two cycles. In preliminary cycle, 30 persons who were selected randomly among the users of rural ICT centers were asked to express their perception and expectation of the quality of services. The reliability and validity of the questionnaire were checked based on the expectation and perception of the users, where as the reliability of SERVQUAL scale was estimated in five categories based on Cronbach's alpha formula. The results were shown in Table 1. The questionnaire was used then in two stages. In stage one the users were asked to express their expectations on the quality of services. The statements of this part were coined in such a way that they express a desire of the respondents for a particular attribute of service quality. In second stage the users were asked to judge the ongoing quality of services according to their perceptions.

**Table 1**  
The reliability of SERVQUAL questionnaire on five scales to estimate quality.

Level of service quality	Cronbach's alpha ratio	
	Expectations	Perceptions
Tangibility	71.14	73.53
Credibility	80.68	80.54
Accountability	81.15	78.54
Assurance	84.86	81.63
Empathy	72.44	71.44
Total	84.75	82.52

**Table 2**  
Expectation and perception frequency of clients on the five sub-categories of service quality.

Dimensions of service quality	Perception						Expectation					
	Weak		Fair		Good		Weak		Fair		Good	
	F	%	F	%	F	%	F	%	F	%	F	%
Tangibility	0	0	41	17.2	197	82.8	0	0	3	1.3	235	98.7
Credibility	0	0	159	66.8	79	33.2	0	0	0	0	238	100
Accountability	5	2.1	189	79.4	44	18.5	0	0	0	0	238	100
Assurance	34	14.3	147	57.6	67	28.2	0	0	28	11.8	210	88.2
Empathy	0	0	16	6.7	222	93.2	0	0	18	7.6	220	92.4
Overall quality	13	5.5	150	63.0	75	31.5	0	0	19	8.0	219	92.0

The authors have chosen to bring the statements that measure expectations first. The author think that if they place the expectations first it will be easier for rural customer to express their wishes objectively unlike if the place of them was after their perceptions of performance since emotions from remembering past experiences could greatly deter the objectivity with which they express their desires.

### 3.3. Data analysis

To ensure how clients feel about the current level of quality, the researchers used Cronbach's alpha which is a common formula to control the internal reliability of the research (Saleh & Ryan, 1991). If Cronbach's alpha ratios exceed 70%, it means the questionnaire is both reliable and valid (Van Dyke & Kappelman, 1997). As Table 1 show, the reliability of sub-categories was high; hence, the questionnaire was internally consistent.

### 3.4. The validity of SERVQUAL questionnaire

Convergent validity was applied to estimate the total validity of the test (Lyland & Watson, 1995). The correlations among the items of questionnaire and the total quality service question embedded in the same questionnaire were estimated and confirmed when it was seen that the scores obtained ranging from 58% through 96% with SEM level of 5% (standard error of measurement), then it was concluded that all items were significant.

## 4. Result

Demographically, 52.5% of clients were over 40 years old and 84.5% of them were men. Among whom 22.3% had finished their primary school, and 51.3% were using rural ICT centers monthly.

As shown in Table 2, the ideal dimension of quality was empathy following by tangibility, reliability, and assurance of service consecutively. The least efficient dimension of quality was responsiveness, that is, accountability. Overall service quality was measured by obtaining an average score of SERVQUAL dimensions. Based on their perceptions, 63% of the population, that is, most subjects evaluated the quality of services as average or fair. Based on their expectations 92% of the population believed that quality was the most significant aspect of services.

The hypothesis number one through five has been used in order to assess the quality of services in five various aspects. For this purpose the expectation of the clients before receiving the services and their perception after receiving the services were measured. According to SERVQUAL model the quality would be obtained from the differences between the clients' expectations and their perceptions. In other words, two variables, that is, expectations and perceptions would be considered among a single group. To obtain the appropriate results, paired sample *T* test was used (Table 3).

**Table 3**  
The results of pair tests among perceptions and expectation.

Hypotheses	Mean		P-E	T value	Level of significance	SME	Result
	Expectation	Perception					
First hypotheses	2.7597	2.7992	-0.03950	-17.094	0.075	0.05	H0 rejected
Second hypotheses	1.8866	2.8840	-0.99748	-37.935	0.000	0.05	H0 accepted
Third hypotheses	1.9916	2.8361	-0.84454	-32.222	0.000	0.05	H0 accepted
Fourth hypotheses	1.7990	2.6366	-0.83754	-38.443	0.000	0.05	H0 accepted
Fifth hypotheses	2.5574	2.6010	-0.04356	-1.747	0.082	0.05	H0 rejected

**Table 4**  
The result of analysis of variance.

Differences	Degree of freedom (df)	Total of square roots	Square root means	F	Level of significance
Intra groups	4	23.158	5.790	33.882	0.000
Inter groups	1185	202.483	0.171		
Total	1189	225.641			

**Table 5**  
The results of multi-level rank order ANOVA.

Variable ranking	Ranking order mean
Reliability of rural ICT services	725.53
Tangibility of rural ICT services	667.94
Responsiveness and accountability to the clients	655.41
Assurance and guarantee	500.38
Appropriate treatment to individuals	428.24

As shown in Table 3, about the first and the fifth hypotheses, the mean difference was low, so at the 5% level of probability it was insignificant. Hence it can be interpreted that rural ICT centers in Rasht city were well-equipped to provide basic services to their clients and their staff have had enough empathy with their clients. In addition, they have been well-behaved to meet their clients' expectations.

The scores for the second, third, and fourth hypotheses reflect significant differences. In other words they indicated that there were gaps among the observations and expectations of clients in terms of reliability, accountability, and assurance of the rural ICT services have failed to meet the expectations of their clients.

In hypothesis six, the significance of various levels of services has been tested. The significant difference among the group means indicated that the level of quality was not similar among various groups. Indeed the variance analysis was a procedure to check the variation among different samples, so one way analysis of variance was applied to investigate the sixth hypothesis (Table 4).

Since the level of significance for value was less than 0.05 it can be concluded that there was significant difference among the means of five categories which can be influential on the quality of rural ICT centers. In other words, where the study was conducted the effect of categories like physical dimension, reliability, accountability, assurance and empathy on the quality of rural ICT centers was not the same.

Kruskal–Wallis ANOVA was used to calculate the value and ranking of each variable.

Since the obtained value was equal to 127.6453 with the probability level of less than 5%, it showed significant difference among the rank order of the above mentioned categories. As indicated in Table 5 the category of reliability of rural ICT services has the strongest effect, whereas the appropriate of treatment to individuals lies last in rank order of effectiveness. The other categories lie within these two borders.

**5. Discussions**

The authors have examined the difference between customers' expectations and customers' perceptions of the service quality in tele-centers.

Based on respondents' expectations, 92% of the population believed that quality was the most significant aspect of services as reported by Curry and Sinclair (2002). This was high and implies that customers expect a lot from the tele-centers; also looking at the individual dimensions showed that, in the results of multi-level rank order Anova. The reliability dimension has score of 725.53. Customers were therefore very sensitive to how reliable a tele-center was in

providing good quality services to them. The customers' expectations across the other dimensions were rated at 667.94 on tangibility, 655.41 on responsiveness, 500.38 on assurance and 428.24 on empathy.

Considering customers' perception of service in tele-centers which was more like the SERVPERF model which deals with consumers' perception of service quality in conformity with customers' satisfaction as reported by Cronin and Taylor (1992), the authors realized that customers' expectations were more than their perceptions in some dimension. Based on the individual dimensions, the result showed that 93.3% of customers were of the opinion that the empathy in tele-centers was most satisfactory compared to the other dimensions and this result agreed with result by Curry and Sinclair (2002) and Negi (2009). The responsiveness dimension was judged the least by customers.

Parasuraman et al. (1985) suggested that when perceived service quality is high, then it will lead to increase in customer satisfaction. They supported the fact that service quality leads to customer satisfaction and this was in line with Saravanan and Rao (2007) and Lee, Lee, and Yoo (2000) acknowledge that customer satisfaction was based upon the level of service quality provided by the service provider. This was a good ground for asserting whether customers were satisfied with service quality in tele-centers or not since based on their perceptions, 63% of the population, that is, most subjects evaluated the quality of services as average or fair.

In this study, the result of paired sample test showed that, about empathy and tangibility dimensions, the mean difference was low, so at the 5% level of probability it was insignificant. Hence it can be interpreted that the customers of tele-centers in Rasht city were satisfied with these dimensions as reported by Curry and Sinclair (2002) and Negi (2009).

It was shown that because of the familiarity of the staff of tele-centers with the culture of their clients and their awareness of the localities and being the locals of the same area, they have been able to fully meet the needs of their clients. Consequently, it was suggested that applicants applying to be newly employed should be selected among the locals.

Also due to recently made centers, their modernity and equipment, clients were pretty satisfied with their centers. However, few of them were not perfectly content with the roads and they complain about the remoteness of offices. Accordingly, it was suggested that in the establishment of new offices accessibility of centers should be taken into consideration.

The scores for the reliability, responsiveness and assurance reflect significant differences. In other words, they indicated that there were gaps among the observations and expectations of clients in terms of these dimensions; this result was similar with the result reported by Kumar et al. (2009).

This research indicated that the personnel of tele-centers were not as highly responsive or eager to react positively to their clients as expected. On the contrary they delayed the demands for weeks or more, a behavior which created negative attitude in the clients. Accordingly the numbers of clients were decreasing. The reasons for such a failure can be attributed to inefficiency of the staff, administrative system and or lack of coordination among various offices. Personnel should be trained or motivated as well as administrative system should be improved so that the problem would be solved.

Also the results indicated that the staffs of rural communication services in target area lacked enough competence which was prerequisite for their efficiency and lack of which can lead to mistrust among their clients. Since assurance and guarantee were vital for providing ICT services as reported by Curry and Sinclair (2002), if personnel's lack enough skill in this regard, it can lead to the inefficiency of their services. Hence in service training personnel became essential.

In summary, from results obtained, similar as result reported by Douglas and Connor (2003), it seems that consumers perceive service quality as poor in some dimensions meaning their expectations fall short of their experience in tele-centers. In this regard, consumers were not satisfied with some dimension of service quality and this therefore means that tele-centers need to make improvements in some dimensions in order to close gaps that could lead to increased customer satisfaction.

## 6. Conclusion

Measuring service quality can help management provide reliable data that can be used to monitor and maintain improved service quality.

From the analysis carried out in order to answer this research questions and hence fulfill the purpose of this study which include; theoretically trying to find out if the SERVQUAL model was used to measure of service quality in tele-centers in Iran and empirically finding out how consumers perceive service quality in tele-centers by identifying what dimensions bring satisfaction.

Firstly, the fit of data collected using the modified SERVQUAL model was realized. The SERVQUAL model provided a satisfactory level of overall reliability (0.83). From the findings, it was clear that the SERVQUAL model was a good instrument to measure service quality in tele-centers.

It was found that, tele-centers in Rasht city were well-equipped to provide basic services to their clients and their staff has had enough empathy with their clients, but the overall service quality was low as perceived by consumers in tele-centers in the reliability, responsiveness and assurance dimensions and hence no customer satisfaction.

Evidence from the study showed that, the entire staffs of tele-centers in target area were not fully helpful, though they tried their best. A lot of factors would cause their inefficiency, including lack of enthusiasm, job dissatisfaction, inappropriateness of their education, inadequacy of payment, and lack of rapport between personnel and their bosses.

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