Quality Assessment in Contracting Municipal Green Space Services, from Contractors' Point of View, by Using Developed Service Quality Gaps Model

Reza Khoshghamat[1], Reza Shafizadeh[2], Nasser Asgari (phd)[3]

[1](M.A) Department of Management, Saveh Science and Research Branch, Islamic Azad University, Saveh, Iran
[2]Assistant professor, Department of Management, Saveh Science and Research Branch, Islamic Azad University, Saveh, Iran
[3]Assistant professor, Department of Management, Shahid Sattari Air University, Tehran, Iran

ABSTRACT

The history of measuring quality in service organizations is less than 20 years, and because of intangibility, difficulty in measuring service and different models to evaluate and measure, it has been particularly important. The present study by applying SERVQUAL model, tries to deal with the quality of municipal green spaces contracting services, from the contractor's point of view; and by using developed model of service quality gaps tries to evaluate contractors' satisfaction in regions 1, 7, 16. The type of research is applied one and its method is descriptive. The sample society of contractors was 3 regions of 22 districts of Tehran, and the number of selected sample, according to the ratio of contractors is 99. Research instrument was a questionnaire that has been designed by researcher and was formulated by using books, journals and researchand available questionnaires' theoretical principles in this sample. The validity of questionnaire and its reliability were confirmed by experts and by using Cronbach's alpha, respectively. SPSS software was implemented to data analysis, and descriptive statistic was used in order to determine the gap of service quality assessment criteria; and the existence of service gaps was approved by using paired t distribution, and rating the criterion of quality assessment on basis of Friedman's model.
KEYWORDS: Satisfaction, SERVQUAL Model, Contractors, Tehran Municipality, Pathology.

1. INTRODUCTION

Nowadays, due to dynamic and changing economic world and environmental uncertainty, competition arena is tighter than ever, and organizations, in the globalization era of production, trade and business, paying attention to all nations that hold a position in the present and future world to themselves, and more than ever are considering development in all aspects, and as a result has designed a broad programs and act according them. In today's competitive and turbulent world, no longer emphasis is on mass production and focusing on the product; instead, all firms and organizations are looking for attracting and keeping customers and fulfilling their expectations and satisfaction, therefore, it has been tried that through various techniques, in addition to promote their products and services, attract more and new customers and make them their permanent customers, and this will not possible unless organizations try to provide a product or service to the customer in accordance with their expectation or even higher than it. (1) Therefore, improving services, whether in the public or private sector, continuously,have been progressive, and these sectors have competed with each other, in aspects of cost and service quality.(28) In the service era, the continuity of organizations' validity directly depends on its validity, and this validity, per se, depends on attitude and satisfaction of customers and citizens toward the importance of organizational goals and their service quality.(3) Accordingly, nowadays, customer orientation and his/her satisfaction, is not just a slogan, rather it is the criteria of organizations' assessment and validity, in which, in public section that exactly is a guarantee to continuity of government and citizen satisfaction, is more highlighted. (24)

Although the history of measuring quality in the field of products is too long, its history in the field of services is less than 20 years. The complexity of identifying features or key effective parameters on theservice quality processes or in comparison with manufacturing processes will be the main cause of delays in the developing measuring instruments of service quality. (14)Some researches on 1980s have been the starting point of investigations and scientific studies in the field of service quality, which ultimately have led to instrument which is called SERVQUAL.(22)

---

*Corresponding Author: Reza Khoshghamat, (M.A) Department of Management, Saveh Science and Research Branch, Islamic Azad University, Saveh, Iran

2. Problem Description

In recent years, due to rapid environmental variations and increasing development of service sectors, as well as, especial emphasize on the quality of providing services, and its important role on customer satisfaction in developed societies, service sectors in Iran have experienced some changes and developments , which are evident in some organizations.(13) Over past few decades, concept of service quality, due to its significant impact on business performance, lower costs, customer satisfaction, customer loyalty and profitability, has attracted the attention of specialists, managers and researchers. Municipal contractors, as administrative operators of performing and completing infrastructure projects and activities can play an important role on citizens' satisfaction and welfare, as well as, on establishing the legitimacy, from the citizen's point of view. The expensive nature of providing services or their capital requirements will require their detailed and careful planning, and other relevant principles to provide necessary inputs, such as financial resources to continue their activities; and any failure or disruption in this field can make serious damage to continue their activities.(9)

However, municipalities'transformations over the last few years, political problems and tensions between the state and municipalities, such as, 1200 billion Rials governmental debt to municipality, has made numerous problems to municipalities, which create several problems to contractors and their dissatisfaction. Following items are the main causes of contractors' dissatisfaction;converting cash payments to non-cash, lack of accountability and responsibility of personnel, and dominance of severe bureaucracy in municipalities. Moreover the low speed of contracting and performing activities to reach the stage of payment and failure to perform related commitments to release contractor's deposits, severe bureaucracy related to delivery of project and lack of regulations and rules about supporting contractors are other important items. Non cash payments, devolution of density, land, etc.(10) according to reluctant acceptance of contractors, are the most important causes of dissatisfaction.(28)

According to existing theories, several factors affect the quality of services, and as a result, customer satisfaction and generally, their users,which some of them are: tangible and physical factors, responsibility, assurance, reliability and empathy, which research results, demonstrate the direct impact of these factors on customer satisfaction and fulfilling their expectations. (11)Obviously, the current trend motivates reducing contractors' service quality, serious damage to them, and even a threat to their survival. However providing appropriate and adequate civil services, as well as acquiring the satisfactory of Iranian, requires cohesion and systematic cooperation of various factors in the process of providing services.(15)

There will be some questions based on the importance of customer satisfaction, their assurance about the quality of received services and its direct impact on the organization's legitimacy and trust that are: what is the measuring model of municipal contractors' satisfaction; what are its dimensions and components; and how the status of each one in sample statistical universe is. (21)What is the idea of Tehran municipality green spaces contractors about the quality of services that they receive, and these services to what extent are according to their expectations? In other words, do green spaces contractors of Tehran municipality are satisfied with the quality of provided health care?

3. Theoretical Framework

SERVQUAL has been one of the most popular methods of measuring services, which introduced by "Parasuraman", "Berry"and "Zeithaml"in 1980. Up to that time (1985) they had managed their findings in service industries such as a Banking, Insurance, Credit Cards, Telecommunications, Repair and Maintenance, and Road Transport companies.(26)

SERVQUAL is a method that can show analyzing the gaps in thequality ofservices,which organizationshave provided them to satisfy customers'expectations (22). Parasuraman, Berry and Zeithaml after quantifying the customer perceptions about service quality, that is a qualitative issue per se, have developed a quantitative model and called it SERVQUAL(24).

They originally, identified ten major aspects in this field, which included all their studied services, in order to measure the service quality. Then, to measure these 10 aspects, they developed and implemented a questionnaire consisting of 97 items (they, in 1991, reduced 10 aspects to five, however all earlier 10 aspects can be seen in these 5 aspects, and their 97-item instrument were reduced to 22 items). These 10 aspects are as follows (Parasuraman et al, 1988):
1. Reliability,
2. Responsiveness,
3. Communication,
4. Competence,
5. Access,
6. Courtesy,
7. Credibility,

8. Security,
9. Understanding /Knowing the Customer,
10. Tangibles

In order to modify these 10 aspects, they continued their researches and then could change these 10 aspects to five ones. A model which currently is known as SERVQUAL is the same model of Parasuraman22-item questionnaire that allocate five aspects to service quality.In specific researches that have performed since 1392, and have paid attention to specific industries,further aspects were added to Parasuraman questionnaire; however, this model has kept its position as reference.(25)

The five main aspects of service quality are as follows:

1. Tangibility
2. Reliability
3. Responsiveness
4. Assurance
5. Empathy

These five aspects are expressed such that includes earlier10 aspects.The aspect of empathy, as one of the main five aspects, per se, includes other aspects such as courtesy, and understanding /knowing the customer. The aspect of assurance also includes aspects of security, competence, access, and credibility.(22)

SERVQUAL model or abovementioned questionnaire can be divided into two distinct parts.The first part, generally measures the customer's expectationsabout a type of services; and second part, which is part of perceptions, try to measure customer's assessment of a particular firm. Perceptions and expectations are measuring based on a 7-point Likert type scale. In order to implement this, the questions related to these two parts have been expressed in pairs, in which the first question measures expectations and the second one addresses perception. Parasuraman et al have developed 22 pairs of questions, which includes all five aspects of service quality. After data collecting from questionnaires and analyzing them, resultant gap will be analyzable and mentioned company or companies will understand the difference between what their customers expect and what they offer to them.(20)

The main advantage of SERVQUAL is that it not only can measure the quality of a particular entity, but also can measure the competitors' service quality. Therefore, questions in sampling market can be set up so that,customers through answering it both rank their competitors and express the reasons of this type of prioritizing.On the other hand, even questions can be proposed so that both deal with the service quality, and determineits position in comparison to competitors.(19)In order to access service quality, there is a method that is introduced byParasuraman, in which the gap between customer expectations and their perceptions will investigate.SERVQUAL is based on this fact that satisfying customers' expectations will make them satisfied; and lack of paying attention to their expectations will make themdissatisfied.(100

Therefore, according to the mentioned items in this model, ten or five aspects of service quality can be used as indicators to establish customer's ideal standards.(8)

The Questionnaire Has Been Divided into Two Main Parts:

1. Expectations (E); it will measure what is desired in the ideal service
2. Perceptions (P); it will measure some aspects of services, which will provide or experience in reality;

And satisfaction (S) that is an imagination of the interval between expectations and perceptions thus, in this model S=P-E.

Parasuraman, to measure the services has developed five aspects:

➢ Tangibility: appearance, physical facilities, equipment, personnel, and means of communication/media;
➢ Reliability: the ability of doing committed services accurately and reliably;
➢ Responsiveness: willingness to help and cooperate with customers and providing fast services;
➢ Assurance: skill and courteous behavior of personnel and their ability to draw customers' trust and motivate a sense of assurance among them
➢ Empathy: companies' attention to its individual clients (Parasuraman, 2005; 123).

Among the most important studies related to servicequality assessment,the following table can be mentioned;

Table 1.Studies Related to Service Quality Assessment

The number of model	The name of model	Author / Authors	Year	Measuring the service quality through
Model 1	Technical and Functional Quality Model	Groenroos	1984	Technical and Functional Quality
Model 2	Gap Model	Parasuraman et al	1985	10aspects of Service Quality
Model 3	Integrated Model of Service Quality	Brogoviz et al.	1990	Technical and Functional Quality Based on Traditional Management Activities (Planning, Implementation and Control)
Model 4	Based on Performance Model	Cronin Taylor	1992	Based on the 22Items of SERVQUAL, but Only Based on Performance
Model 5	IT Connective Model	Berkley and Gupta	1994	
Model 6	PCP Features Model	Flip and Hazat	1997	The Main, Central and Lateral Features
Model 7	Retail Service Quality and Perceived Value Model	?????????????	1997	Functional Quality Through 5 Aspects of SERVQUAL and Technical Quality Through One Aspect of SERVQUAL
Model 8	ModelBased on IT	Zhu et al.	2002	Aspects Based on Perceptions
Model 9	E-Service Quality Model	Santos	2003	Through Aspects of Activities and Incubator

Based on the above mentioned items and a comprehensive review of SERVQUAL model as a base model to assess satisfaction of contractors, conceptual model of research are presented as follows.
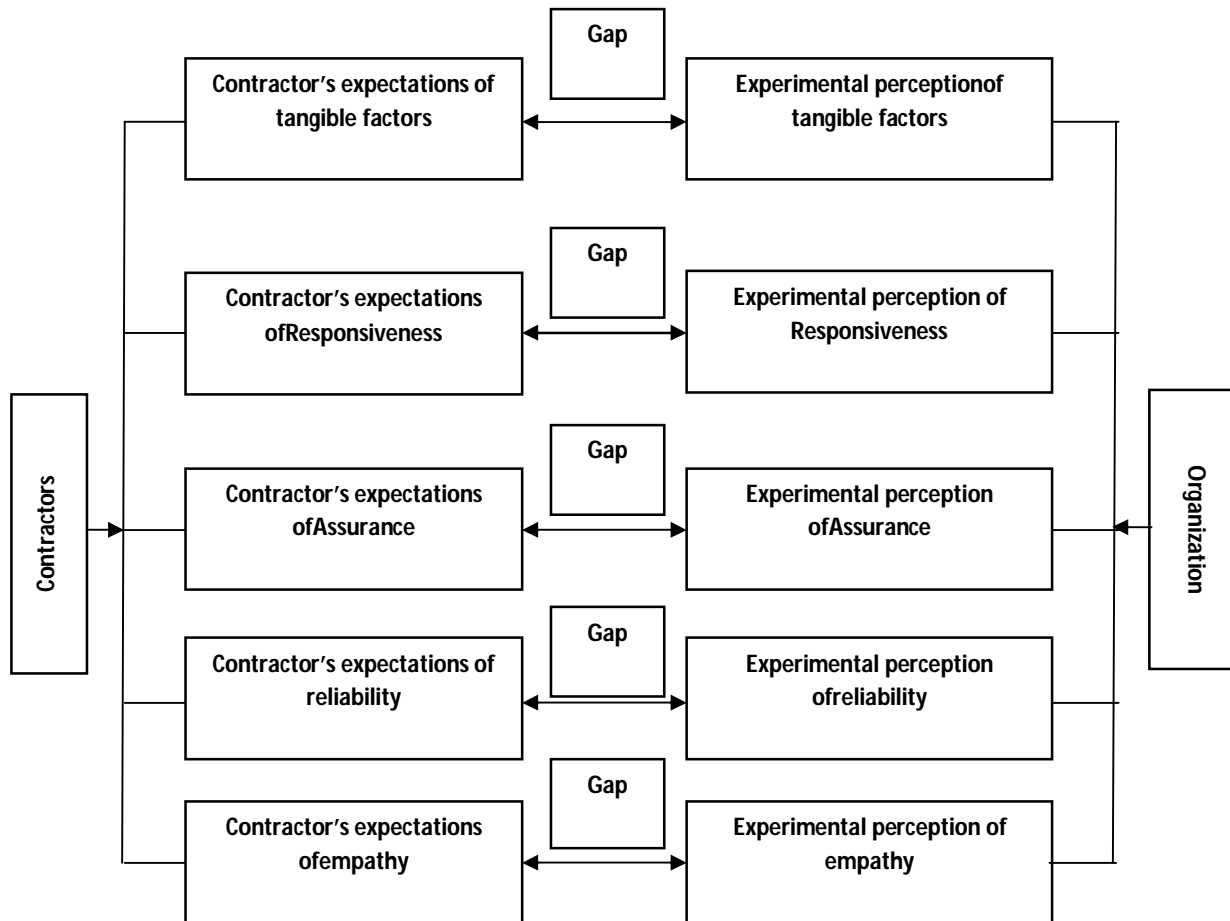

Figure1.Conceptual model of research

And based on research model, research hypotheses are provided as follows:
1. Expectations of green space contractors from Tehran municipality service quality, in aspect of tangibility (physical and tangible factors) are beyond experimental perception.

2.   Expectations of green space contractors from Tehran municipality service quality in aspect of responsivenessare beyond experimental perception
3.   Expectations of green space contractors from Tehran municipality service quality in aspect of assurance are beyond experimental perception
4.   Expectations of green space contractors from Tehran municipality service quality in aspect of reliability are beyond experimental perception
5.   Expectations of green space contractors from Tehran municipality service quality in aspect of empathy are beyond experimental perception

4. RESEARCH METHODS

Present study in aspect of objectives is descriptive research, and its data type is qualitative, as well as it is a survey research in aspect of implementation. Statistical universe of this study is all contractors of Regions 1, 7, 16 in Tehran.In this paper, according to the latest census of the first 6 months of 2012, among all 172 subjects of statistical universe, 97 subjectswere selected through simple random sampling.In this research, initially the research literature in Iranas well as out of Iran has been reviewed; and then, the factors have been studied;in order to data collection a questionnaire that are designed by researcher has been used; afterdevelopingquestionnaire, its validity and content will be confirmed by experts andits reliability willbe obtained from a pilot studyand validity and reliabilityof final version will be done through Cronbach's alpha and by using SPSS software.To data analyze, descriptive statistical parameters (mean, variance, standard deviation, and chart) and inferential statistics (to data analysis uni-variate t-test andto prioritizing factors, the Friedman variance analysis) are used.

5. Data Analysis
1-5. Testing Hypotheses

Table 2. Summary of Hypotheses'Results

Hypotheses	Mean Difference	t Value	Freedom Degree	p Value	Confirming or Rejecting Hypothesis
The first hypothesis	2.04	31.84	98	0.00	Confirmed
The second hypothesis	2.56	32.54	98	0.00	Confirmed
The third hypothesis	2.64	37.91	98	0.00	Confirmed
The fourth hypothesis	2.56	32.011	98	0.00	Confirmed
The fifth hypothesis	2.64	37.91	98	0.00	Confirmed

The result of Paired t test, to assess the significance level of mean differences is presented in Table 2;results indicate that this value is significant. According tot - value of 31.84,with freedom degree of 98, and significance level of 0.05, and on the basis of this fact that p-value of test is less than 0.05 (0/0) null hypothesis is rejected.Therefore, according to result, it can be said,based on samples' point of view, expectations of green space contractors from Tehran municipality service quality are not equal to their experimental perception, in aspect of tangibility/tangible factors.

The result of Paired t test, to assess the significance level of mean differences is presented in Table 2; results indicate that this value is significant. According to t - value of 32.54, with freedom degree of 98, and significance level of 0.05, and on the basis of this fact that p-value of test is less than 0.05 (0/0) null hypothesis is rejected. Therefore, according to result it can be said, based on samples' point of view, expectations of green space contractors from Tehran municipality service quality are not equalto their experimental perception, in aspect of responsiveness.

The result of Paired t test, to assess the significance level of mean differences is presented in Table 2; results indicate that this value is significant. According to t - value of 37.91, with freedom degree of 98, and significance level of 0.05, and on the basis of this fact that p-value of test is less than 0.05 (0/0) null hypothesis is rejected. Therefore, according to result it can be said, based on samples' point of view, expectations of green space contractors from Tehran municipality service quality are not equalto their experimental perception in aspect of assurance.

The result of Paired t test, to assess the significance level of mean differences is presented in Table 2; results indicate that this value is significant. According to t - value of 32.011, with freedom degree of 98, and significance level of 0.05, and on the basis of this fact that p-value of test is less than 0.05 (0/0) null hypothesis is rejected. Therefore, according to result it can be said, based on samples' point of view, expectations of green space contractors from Tehran municipality service quality are not equalto their experimental perception, in aspect of reliability.(11)

The result of Paired t test, to assess the significance level of mean differences is presented in Table 2; results indicate that this value is significant. According to t - value of 37.91, with freedom degree of 98, and significance level of 0.05, and on the basis of this fact that p-value of test is less than 0.05 (0/0) null hypothesis is rejected.

Therefore, according to result it can be said, based on samples' point of view, expectations of green space contractors from Tehran municipality service quality are not equalto their experimental perception in aspect of empathy.

2-5. RatingEffective Factors on Contractors' Satisfaction
The method of Friedman rating is usedand its results are presented in the following table.

Table 3. The Average Rates and the Number of Factors' Priorities

Name of Variable	Average Rating	The Number of Priority
Employee's Responsiveness	2.93	4
Assurance that is Provided by Tehran Municipality	3.16	2
Empathy	2.62	5
Physical Aspects of Tehran Municipality(Tangibility)	3.06	3
Reliability of Municipal Services to Contractors	3.23	1

6- Conclusions and Recommendations

According to the research results,parameters of each variable that have beenprioritized based on obtained scores, and parameters that have had a higher score, will prevent satisfaction of contractors inTehran municipality.According to samples' point of view, expectations of green space contractors from Tehran municipality service qualityare not equalto their experimental perception in aspect of tangible and physical factors, reliability, assurance, personnel responsiveness and empathy.Prioritizing research variables are as follows:
- ➢ Employee's responsiveness
- ➢ Assurance that is provided by Tehran municipality
- ➢ Empathy
- ➢ Physical aspects of Tehran municipality (tangibility)
- ➢ Reliability of municipal services to contractors

There are some recommendations on the basis of above mentioned concepts:
1. AboutResponsibility ofpersonnel in municipality, it is recommended that personnel of municipality improve and increase willingness toward help and cooperate with contractors and providing fast service.(22)Moreover, it is recommended that managers in this aspect, i.e. responsiveness, establish educational coursesto employees, in the field of service quality. Nowadays, the issue of total quality management is the most common technique to improve services, which its training willbring about more profitability and better contractors' satisfaction.(28)
2. In this hypothesis, that includes capability of assurance, according to unfavorable situation of this indicator, it is recommended that competence and capability of personnel should be improved to induce a sense of trust and reliability, and ability and skills of employees should be upgrade by using updated training courses and successful experiences of other countries. And there should be empowering, in order to comply with social customs of employees,expression of truthto customers and keeping their privacy.(25)
3. Relevant recommendations in this aspect includeconsidering and paying attention to individual contractors,in which personnel should believe contractors' problem is their own problem, and institutionalize this idea in them and try to identify needs of contractors, because, according to theory of Maslow, requiring respect and socializationand self-actualization are some of high level requirements that will satisfy customers and will developed in them a sense of complacency. Thus, in this aspect it is necessary that managers and employeeshaveempathy to each contractor, and in this field use contractors, consultants and lawyers to address the rights of contractors so that contractors feel they are not deceived.Furthermore, in this field, supervisorsplaythe highest rolein empathy with contractors.
4. In relation to aspect of physical capabilities (tangibility) it is suggested thatmunicipality update the facilities, so thatcustomers can easily access to these facilities, such as those that are related to municipality; and followall details of their documents that are related to administrative process,online; and prevent their frequency referral, and wasting time.As well as, providing an automation system to ease the process of documents isrecommended. A clean environment and adornment of employees and their good-temper are severelyrecommendedto satisfaction.
5. The gap in ideal and current status of reliability includes these recommendation: increasing action stability and reliability,so that contractors in their first presentation in municipality, feel that they will fulfilltheir commitmentsand enact some regulationsand rules to protect the interests of contractors and the sense of being mutual-winner-winner - will be inducedin contractor.

REFERENCES

1. Ahooja. Vijay. (2001). Changing Patterns of e-CRM solutions in the Future . In: Jagdish N. sheth. AtulParvatiyar and G. shainesh (eds). Customer Relationship Management: Emerging Concepts. Tools and Applications. New Delhi: Tata McGraw Hill Publishing Company Limited.
2. Abbott &Buttle (2001). Best Practices in Outsourcing CRM and Lessons Learned, in: Stanley A. Brown (ed), customer Relationship Management: a strategic imperative in the world of e-business, Ontario: John Wiley & Sons Canada. Ltd.
3. Azar, A., and Momeni, M, 2008, Application of Statistics and Management (Volume II), published by the
4. Anvari, 2005, Customer Service, Journal of Management, Eleventh Edition
5. Bazargan, A. and Hmkaranf ,2001, Research Methods in Behavioural Sciences, Informed Publishing
6. Beerli& et al (2003), e-CRM: Deriving value of customer Relationship, in: Jaglish N. sheth, AtulParvatiyar& G. shainesh (eds), Customer Relationship Management: Emerging concepts, Tools and Application, New Delhi: Tata McGraw-Hill publishing Company Limited.
7. Bougie et al. (2001), Customer Relationship management: a strategic imperative in the world of e-business, Ontario: Jhonwiley& sons Canada, Itd.
8. Delkhah, Ali and Ali Dyvandr, 2005, edited and designed a model to measure customer satisfaction in the industry.
9. Delaware, Ali. 2004, Research Methods in Psychology, published 14, Tehran: Publication editing
10. Gamson.ray (1993). Benefits of Implementing a CRM system in cellular Telecom services, in. J. N. sheth, A. Parvatiyar& G. Shainesh (eds), Customer Relationship Management: Emerging Concepts, Tools and Applications, New Delhi: Tata McGraw Hill publishing Company Limited.
11. Hafiznia, MR. 1998, Introduction to research methods in the social sciences, published by the
12. Habibi, AR. 2008 Quality of Customer Service at Toyota of view, of: MA thesis
13. Flint.d.j.et al (2003). Electronic Customer Relationship Management: Revisiting the general Principles of Usability and resistance-an Integrative Implementation Framework, Business Process Management Journal, V, 19, N, 5.
14. Fox & stead (2001), Putting CRM to work: the Rise of the Relationship, in: Stanley A.Brown (ed),Customer Relationship Management: a strategic imperative in the world of e-business, Ontario: Jhonwiley& sons Canada, Ltd.
15. Hoskins, Graham. (2001). The past, present and Future of CRM, in: J.N. sheth, Parvatiyar& G. Shainesh (eds), Customer Relationship Management: Emerging Concepts, Tools and Applications, New Delhi: Tata McGraw-Hill publishing Company Limited.
16. IrannezhadParizi, M,2007, Quality of Service, Publication Directors
17. Khaki, GR. 2000 Research Methods in Management, Third edition, Tehran: Islamic Azad University
18. Ibid, (2000), Using the Tools: Data Base Marketing, Data Warehousing and Data Mining, in: Stanley A. Brown (ed), Customer Relationship Management: a strategic imperative in the world of e-business, Ontario: Jhonwiley& sons Canada Limited.
19. Jamal &naser(2002), Implementing a Tcehnology Based CRM Solutions: The ICICI Experence, in: J. N. sheth, A. Parvatiyar& G. Shainesh (eds), Customer Relationship Management: Emerging Concepts, Tools and Applications, New Delhi: Tata McGraw Hill publishing Company Limited.
20. New Delhi: prentice-Hall of India
21. Kotler, Philip. And Gary Armstrong.(2004). Principles of Marketing, 10 th ed.,
22. Natarajan, Rajesh, and B. shekar (2001). Data Mining For CRM: some Relava Issues, in: J. N. sheth, A. Parvatiyar& G. Shainesh (eds), Customer Relationship Management: Emerging Concepts. Tools and Applications, New Delhi: Tata McGraw-Hill publishing Company Limited.
23. Gonzales, Vega. (2001), Introduction to information systems: essentials For the internetworked e-business Enterprise, 10 thed, USA: McGraw-Hill Companies, Inc
24. Parvatiyar, Atul, And Jagdish N. sheth (2001). Conceptual Framework of Customer Relationship Management, in: J. N. sheth, A. Parvatiyar& G. Shainesh (eds), Customer Relationship Management: Emerging Concept Tools and Applications, New Delhi: Tata McGraw-Hill publishing Company Limited
25. Qar, Cirrus,2005, consent of the customer satisfaction measure 164
26. Shindler&Boun. (1995). E-channel Management: Electronic Relationship Management. A. Brown (ed), Customer Relationship Management: a strategic imperative in the world of e-business, Ontario: Jhonwiley& sons Canada Limited
27. Skelt et al (1995). Customer Behavior, 4 thed, USA: Simon & Schuster, Inc.
28. Zitamel, et al (1990). Servqual model, UK: McGraw-Hill, co.