

## **Measuring Service Quality of Islamic Azad University of Mazandaran using SERVQUAL Model**

*Taraneh Enayati<sup>\*1</sup>, Yasaman Modanloo<sup>2</sup>, Reza Behnamfar<sup>3</sup>, Abbas Rezaei<sup>4</sup>*

*1. Department of Educational Management, Sari Branch, Islamic Azad University, sari, Iran*

*2. Department of Educational Management, Neka Branch, Islamic Azad University, Neka, Iran*

*3. PhD student of Educational Management, Sari Branch, Islamic Azad University, Sari, Iran*

*4. M.A of Educational Management, Sari Branch, Islamic Azad University, Sari, Iran*

(Received: 12 April 2012; Revised: 18 September 2012; Accepted: 20 October 2012)

### **Abstract**

The purpose of the study is to evaluate the service quality of Islamic Azad University of Mazandaran. The study was a descriptive survey. The statistical population consists of all Islamic Azad University students of Mazandaran and 373 students were chosen through stratified random sampling method as the sample of the study. The data were collected using the SERVQUAL standardized questionnaire. Data analysis was done through using paired samples t-test and Friedman's test. The findings of the study showed a significant difference between the students' expectations and perceptions in all five dimensions of service quality and in all dimensions, students' expectations had a higher level than that of the perceptions. Moreover, the comparison of the five dimensions showed that the students' perception of the received service quality was not the same, so the highest and the lowest service quality were given to tangibility and empathy, respectively.

### **Keywords:**

SERVQUAL, Service quality, Islamic Azad University, Mazandaran.

---

\* Corresponding Author, Tel: +98-151-2133851

E-mail: tenayati@yahoo.com

## Introduction

Higher education has experienced significant changes and reforms in all parts of the world. Globalization along with information communication and technology revolution and the increasing demand for knowledge have created numerous challenges for higher education. As these challenges are considered as threats for the education systems, they are regarded as the opportunities for higher education. Competition is deemed to be a driving force for globalization, so accordingly higher education institutions must compete with each other to attract higher numbers of students seeking to study in higher educational level (Arambewela & Hall, 2006). Correspondingly, higher education institutions seek out to improve the quality of their educational services to meet the students' expectations. The quality of higher education is considered to be a fundamental factor for the development of a country, because universities are the places where professional people are trained. These people are regarded as organization managers, administrators of public and private sources, officials in charge of the health care and education system of the next generation. Higher education has increasingly been identified as a service industry, and must do its utmost to identify and meet the needs of its customers who are definitely the students. Educational institutions must strive to meet standards for services which would exceed their students' expectations and needs (De Oliveira & Ferreira, 2009).

The quality is a set of features of the product or service which is capable of complying with the explicit or implicit needs. In most of the definitions, the most important factor is the customer's satisfaction and meeting their demands. Based on the Parasurman's perspective, the service quality is the size and the difference between the customer's perceptions and expectations of the service (Zahedi & Biniiaz, 2009). Regarding the ideas proposed by UNESCO, quality in higher education has a multidimensional concept which to a large extent depends on the conditions and standards of academic disciplines and the situation or the mission of the system (Bazargan, 2002). Nowadays, all the students' ideas on all aspects of provided trainings in educational institutions will be evaluated and monitored

and considered as an essential factor in the quality of universities (Hill, Lomas & MacGregor, 2003).

In the traditional approaches, the characteristics of goods or services were taken as the quality criteria, but current attitude defines the quality as the customers' demands (West, 2001). Clients or recipients of the services, evaluate the quality of services by comparing them with their expectations and perceptions of the received services (Lim & Tang, 2000). One of the basic steps in proposing a model to improve the quality of the services is obtaining feedback from the customers. The obtained feedback from customers helps prioritize the areas in which a need for continuous improvement is felt with regard to the time and resources constraints and other factors (Chin & Pun, 2002). In spite of emphasizing on obtaining feedback from customers, there is often no relation between the management concern of the perceptions and expectations of service recipients and their real perception and expectation which is causing damages to the quality of the service (Donnelly et al., 1995).

In such cases, decision makers can not accurately prioritize the issues which cause the services to fail to meet the customers' expectation and, therefore, we will have a quality gap (Hill et al., 2003).

In order to assess the quality of services in an organized procedure and to enable management to promote quality services in such a system, different models such as LibQual, Kano, Lehtinen and Johnston have been proposed.

The cases which are proposed below are the most famous models of service quality.

- **Gronroos model** (1990, as cited in Iranzadeh et al., 2010) is based on three basic dimensions of functional quality, technical quality and mental image. The model suggests that there is a direct relation between services quality and technical and functional aspects of quality. Moreover, there is also a direct relationship between functional quality and technical quality in line with the perceived service quality. Finally, the model suggests that the service quality would create customer's satisfaction. The five main components of the functional quality from

Gronroos' ideas are tangibility, reliability, responsibility, assurance and empathy issues.

- **Servperf model:** Cronin and Taylor's (1992) questioned the gap between expectations and functionality as the basis for measuring service quality and proposed Servperf's measurement which evaluates the quality. Based on their studies, the concept of function-based scaling is the adjusted form of service quality measurement structure of SERVQUAL scale (Carrillat, Jaramillo, and Mulki, 2007).

- **Garvin** (1987) has proposed eight dimensions for assessing quality. He did not differentiate between manufacturing organizations and service providers. He recapitulated the eight dimensions as performance, features, reliability, compatibility (adaptation), permanence, service functionality and aesthetics and received quality (Farsijani & Zandi, 2010).

- **SERVQUAL model:** The most common model in service quality literature to measure the quality of services is SERVQUAL, which was put forward by Parasuraman, Zeithaml and Berry in 1988. This model was applied in four service sectors including banks, credit card companies, stock exchange companies and service companies. At the first stage, Parasuraman and colleagues in 1985 conducted an in-depth study by interviewing the employees of these companies and institutes and also focused interviews with customers of these four sector services and identified the conceptual and analytical model of service providers and customers' expectations gap. They also introduced the ten dimensions of quality including tangibility issues, reliability, responsiveness, communication, credibility, safety/relief, merit/competency, courtesy and humility, empathy and availability. In 1988, they summarized these ten dimensions into five dimensions of tangibility issues, reliability, assurance, empathy and responsiveness following their research on SERVQUAL model by screening and evaluating the primary dimensions. Therefore, they adopted these dimensions as the basis for establishing a measurement scale to assess services (Hosseini, Ahmadinejad, and Ghady, 2011). All these dimensions prepare the ground for the customer to consider quality.

1. The tangibility or physical dimension which includes working facilities and equipment for communication goods.

2. Reliability dimension which means the ability to perform safe and reliable service in a way that the customer's expectations are met. In other words, reliability means fulfilling obligations that is if the service organization pledges to act on some certain conditions (the time and the cost of the service); it should keep its promise.

3. The responsiveness or accountability dimension which is related to the organization contribution and willingness to help the customers, this service quality dimension put emphasis on the awareness and sensitivity towards the customers' requests, questions and complaints.

4. The assurance (warranty or guarantee) dimension which expresses a sense of competence and ability in the employees' in encouraging and implanting the trust and confidence in the customers towards the organization. This dimension of service quality is especially important in the services that have a higher risk. For example, in healthcare services where the life of the people is very important, this dimension becomes significantly important.

5. Finally, the empathy which means treating people based on their special features and characteristics, so that customers can be satisfied that the organization appreciate them and they are important for the organization (Gorgi, Siami, and Nouraei, 2010).

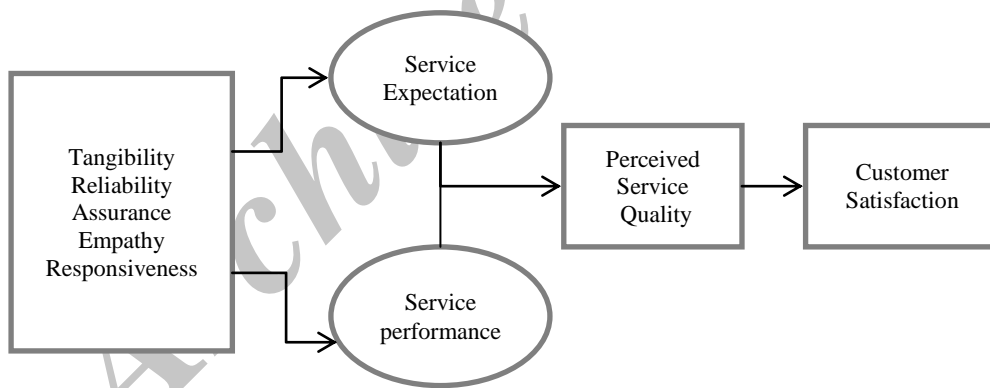


Figure 1: SERVQUAL Conceptual Model (Daniel & Berinyuy, 2010)

## Literature Review

Bagherzadeh and Bagherzadeh (2010) conducted a study entitled as "evaluating the quality of higher education centers services using Servqual model and centers ranking using a hierarchical analysis" and concluded that Tabriz higher education institutions have failed to meet their students' expectations. The minimum gap range was related to the assurance dimension and the highest range was given to the empathy. The results of the study conducted by Arbuni et al. (2009) to investigate the gap between students' expectations and provided educational services in Zanjan University of Medical Sciences showed that there was a gap in all different service quality aspects. The highest split mean was seen in the aspect of empathy (-1/67) and the values for the other aspects of responsiveness, reliability, tangibility and assurance were (-1/62), (-1/54), (-1/52) and (-1/46), respectively. In another study which was done to evaluate the quality of educational services from the students' perspective in Payamenoor University of West Azarbaijan provinces, the findings revealed the fact that students were not satisfied with the quality of services provided by the educational centers (Zavvar et al., 2008). Moreover, the study on the quality of educational services provided to the students in Hormozgan University of Medical Sciences showed that there existed a gap among all the five dimensions of the service quality. The highest split mean was seen in the dimension of responsiveness (-1/14) and the values for the other dimensions of empathy, assurance, tangibility and reliability were (-0/95), (-0/89), (-0/84) and (-0/71), respectively (Aghamolaie, Zare, and Abedini, 2007). Ahmadi and Ghelichli (2006) conducted a study entitled as "designing the management model for educational services quality in Payamenoor University" came up with the idea that there was a significant difference between the current status of the services and the expected level of the quality of services in the ten regional branches of Paymenoor University from the perspective of the students which was about (-1/7). The results from the study by Kebriaie et al. (2005) also showed that (7/6%) of the students at Zahedan University of Medical Sciences viewed the quality of educational services as satisfactory, (48/2%) as average and (34/2%) described it as below the average. The comparison of the five dimensions of service quality showed that the observed

quality difference among the five dimensions of services together was significant and the quality status quo in the assurance dimension (work commitments) was higher and the dimension of responsiveness (helping clients) had the worst status than the other dimensions. In a study conducted by Zabed Ahmad and Zahid Hussain Shoab (2009) entitled as "measuring the quality of library services in one of the State Universities of Bangladesh using Servqual model", they evaluated the undergraduate and post graduate students' ideas. The findings showed that the quality of offered services was lower than the expectations of their users. Moreover, the results of the study by Arambewela and Hall (2006) evaluating the comparative analysis of the international education satisfaction using Servqual model on the Chinese, Hindi, Indonesian and Thai post graduate students studying at five Australian universities came to the conclusion that the priorities of each variable in different groups (based on their origin) was different. Based on the students' ideas, the most effective dimension was the tangibility and the least effective one was the empathy. Bradley (2006) conducted a study on the quality of service from the Chinese post-graduate students' perspective and showed that there was a negative quality gap in all services dimensions. Chau (2006) also conducted a study on the "perceptions quality in higher education" and concluded that based on the Management college students' ideas from a university in Canada, the largest gap in quality was observed in the assurance dimension.

### **Purpose of the Study**

The present study aimed to assess the service quality of Islamic Azad University of Mazandaran from the students' perspective and evaluating the current status of the branches of the university to consider the distance between the current situation and desirable status. Due to the fact that the findings of the research will provide the perceptions of the student on the delivered services by universities, the research can offer direction for desirable use of the services. So, regarding such factor, six research questions were proposed and discussed as follow:

1. How is the tangibility dimension of the service quality in the Islamic Azad University of Mazandaran?

2. How is the reliability dimension of the service quality in the Islamic Azad University of Mazandaran?
3. How is the assurance dimension of the service quality in the Islamic Azad University of Mazandaran?
4. How is the responsiveness dimension of the service quality in the Islamic Azad University of Mazandaran?
5. How is the empathy dimension of the service quality in the Islamic Azad University of Mazandaran?
6. Are the students' perceptions of the provided services quality in different dimensions, different?

### Methodology

The research adopted a descriptive survey in order to evaluate the five dimensions of quality services including tangibility, reliability, assurance, empathy and responsiveness in Islamic Azad University of Mazandaran from the students' standpoint.

The population for conducting the study consisted of all Islamic Azad University students of Mazandaran which sums up to 59,461 in 2010. Regarding the given population, 373 students were chosen through stratified random sampling as the sample of the study which is given in Table 1 based on the university branches.

**Table 1: Frequency distribution of the samples based on the university branches**

University Branches	Babol	Chalus	Qaemshahr	Sari	Amol	Tonekabon	Total
Frequency	51	66	95	70	31	60	373
Percentage	13.7	17.7	25.5	18.8	8.3	16.1	100

**Instrument:** SERVQUAL standard questionnaire was used to collect data. This 22-question tool was used to measure two aspects: service expectations, and perceptions of provided services. Then, the service quality was measured by using the gap between the expectations and assessed perceptions (Engelland, Workman, and Singh, 2000). The Distribution of the questions among the five aspects of service quality



was in a way that for tangibility, assurance and responsiveness, four questions were assigned and reliability and empathy received five questions (Parasuraman et al., 1988).

As mentioned before, this questionnaire examines two aspects of service quality. In the first aspect, the students were asked to express their views on the current quality of the provided services (perception of the status quo). For the second aspect, they were asked about how they expect the quality of services to be (their expectation on the best conditions) (Aghamollaie et al., 2008). Therefore, the given tool can evaluate the gap between expectations and perceptions of the provided services and it is assumed that the smaller the gap is the better service quality will get (Fu & Parks, 2001). Based on the idea of the questionnaire writer, the difference between expectations and perceptions of the respondents is indeed service quality (Hudson, Hudson, and Miller, 2004).

Due to the fact that the importance of service quality has caused Parasuraman, Zeithaml and Berry (1988) to conduct a great deal of research to develop SERVQUAL measurement tool for measuring service quality, the face and content validity of the questionnaire were confirmed. Also in other researches content validity (Bagheri, Zarei, and Amighi, 2011) and construct validity (Wang & Shieh, 2006) were confirmed. Using SPSS, an internal consistency analysis was performed to assess the reliability aspect of the SERVQUAL instrument. Reliability refers to the instrument's ability to provide consistent results in repeated uses (Gatewood & Field, 1990). The reliability of the questionnaire was assessed using Cronbach's alpha coefficient which was (0/82) indicating a good reliability for conducting the study, because Nunnally (1978, cited in Mostafa, 2007) suggested that an alpha value of (0.7) is acceptable.

## **Results**

Table 2 is presented to describe the perceptions and expectations of students of provided services quality in Azad University Branches of Mazandaran. As it is clear from the table, the highest perceptions

average is related to tangibility and the lowest one is related to empathy. For the expectations aspect, the highest expectations average is for the responsiveness dimension and the lowest one is associated with empathy.

**Table 2: Description of the students' perceptions and expectations status from the University services quality**

Scale	Perceptions		Expectations	
	Mean	Std. Deviation	Mean	Std. Deviation
Tangibility	2.7109	0.88617	4.7514	0.43653
Reliability	2.5499	0.78143	4.7364	0.42467
Responsiveness	2.6311	0.93072	4.7671	0.44345
Assurance	2.4481	0.87486	4.7268	0.41424
Empathy	2.4011	0.88996	4.6541	0.52151

In order to answer the first five questions, paired samples t-test were used as shown in Table 3.

**Table 3: Paired samples t-test for dimensions of service quality**

Perceptions and Expectations	Paired Differences				t	df	Sig
	Mean	Std. Deviation	95% Confidence Interval of the Difference				
			Lower	Upper			
Pair 1 Tangibility	-2.03134	0.97354	-2.13127	-1.93140	39.972	366	0.000
Pair 2 Reliability	-2.17486	0.88644	-2.26668	-2.08304	46.581	357	0.000
Pair 3 Responsiveness	-2.13049	1.03143	-2.2023681	-2.02418	39.409	363	0.000
Pair 4 Assurance	-2.27740	0.96644	-2.37687	-2.17792	45.021	364	0.000
Pair 5 Empathy	-2.25095	1.03157	-2.35655	-2.14535	41.916	368	0.000

As it can be seen from Table 3, the difference between perceptions and expectations in all five SERVQUAL dimensions was meaningfully significant. That is the students' expectations in all dimensions of service quality were not met. Regarding the mean differences, it is clear that

the highest and lowest gap were observed in assurance and tangibility, respectively.

Considering the fact that there are significant differences in all dimensions, the constituent components of each dimension is addressed and examined in Table 4.

**Table 4: Paired samples t-test for components of each dimension of service quality**

Dimensions	Components of Each Dimension	Service Quality Level	Mean	Mean differences	Sig
Tangibility	The new and updated facilities and equipments (library, projector ...)	Perceptions	2.57	-2.220	0.000
		Expectations	4.97		
	Facility's apparent attractiveness (building, classes, resting places...)	Perceptions	2.63	-2.076	0.000
		Expectations	4.71		
	The formally dressed employees and staffs	Perceptions	2.90	-1.805	0.000
		Expectations	4.70		
Pleasant and appropriate atmosphere for the students	Perceptions	2.76	-2.043	0.000	
	Expectations	4.81			
Reliability	Doing the tasks or fulfilling the promised services	Perceptions	2.34	-2.399	0.000
		Expectations	4.73		
	Employees' competence and ability to solve students' problems	Perceptions	2.39	-2.333	0.000
		Expectations	4.72		
	Fulfilling and doing the tasks and services at the first time meeting	Perceptions	2.26	-2.429	0.000
		Expectations	4.69		
	Providing the services at the predetermined time	Perceptions	2.37	-2.344	0.000
		Expectations	4.72		
	Maintaining and keeping the students' education records and files	Perceptions	3.43	-1.382	0.000
		Expectations	4.81		
Responsive ness	Informing the students about the time of receiving the services	Perceptions	2.62	-1.382	0.000
		Expectations	4.72		
	Providing the students with prompt services with no delay	Perceptions	2.33	-2.414	0.000
		Expectations	4.75		
	Employees' willingness to help the students	Perceptions	2.36	-2.330	0.000
		Expectations	4.69		
Having access to the employee to respond to students' needs	Perceptions	2.48	-2.279	0.000	
	Expectations	4.76			

Assurance	Building confidence in students (students' assurance in the employees)	Perceptions	2.57	-2.172	0.000
		Expectations	4.76		
	Feeling secure and relaxed when interacting with employees	Perceptions	2.56	-2.214	0.000
		Expectations	4.78		
	Employees' respecting the students	Perceptions	2.68	-2.095	0.000
		Expectations	4.77		
Employees' competence and expertise to respond to students' needs and questions	Perceptions	2.72	-2.044	0.000	
	Expectations	4.77			
Empathy	Paying attention to each individual student	Perceptions	2.42	-2.111	0.000
		Expectations	4.53		
	The appropriate timing and working hours for students' visit	Perceptions	2.59	-2.098	0.000
		Expectations	4.69		
	Meeting students patiently and compassionately	Perceptions	2.41	-2.300	0.000
		Expectations	4.71		
	Employees' real interest in students' success and achievements	Perceptions	2.33	-2.336	0.000
		Expectations	4.67		
	Employees' understanding of the students' particular needs	Perceptions	2.29	-2.395	0.000
		Expectations	4.68		

As it can be observed in Table 4, the two components of fulfilling and doing the tasks and services at the first time meeting (-2/429) and providing the students with prompt services with no delay (-2/414) had the highest gap between the students' expectations and perceptions. In contrast, the components such as maintaining and keeping the students' education records and files (-1/382) and informing the students about the time of receiving the services (-1/382) showed the lowest values for the gap between the students' perceptions and expectations. In order to answer the sixth question, the Friedman test was used and the results are presented in Table 5 and Table 6.

**Table 5: The Friedman test to check the sixth question**

N	Chi-square	df	Asymp. Sig.
356	64.227	4	0.000

**Table 6: Prioritizing the five dimension of provided service quality**

Dimensions Index	Tangibility	Reliability	Assurance	Responsiveness	Empathy
Mean Rank	3.32	3.06	2.78	3.28	2.56
Prioritizing the Dimensions	1	3	4	2	5

As it is shown in Table 5, the identical perceptions of the five dimensions of service quality is rejected based on the result of the Friedman test at significance level of (0/000) and according to Table 6, it becomes clear that students' perceptions of the provided services quality in the five dimensions were not similar. The students considered the quality of the tangibility as the best and responsiveness, reliability, assurance and empathy ranked the next positions, respectively.

### Discussion

Results of the study showed that there existed a negative gap in all five dimensions of service quality in Islamic Azad University of Mazandaran. That is the students' expectations of the provided services have not been met. The results of this study matched the studies conducted by Bagherzadeh and Bagherzadeh (2010), Arbuni et al. (2009), Zavvar et al. (2008), Aghamolaie et al. (2007), Ahmadi and Ghelichli (2006), Kebriaie et al. (2005), Zabed Ahmad and Shoeb (2009), Arambewela and Hall (2006), Bradley (2006) and Chau (2006) in which there existed a gap between samples' expectations and perceptions of the service quality. In this study, the lowest gap was seen in tangibility and the highest was related to the assurance while in the study by Bagherzadeh and Bagherzadeh (2010) and Arbuni et al. (2009) the lowest and highest gaps were seen in assurance and empathy, respectively, and in the study by Aghamolaie, Zare and Abedini (2007) and Kebriaie et al. (2005) the lowest and highest gaps values were seen in reliability and responsiveness (Table 7).

**Table 7: Summary of research history**

Researcher(s)	Country	Findings
Bagherzadeh and Bagherzadeh (2010)	Iran (Tabriz)	Negative quality gap (Lowest: Assurance- Highest: Empathy)
Arbuni et al. (2009)	Iran (Zanjan)	Negative quality gap (Lowest: Assurance - Highest: Empathy)
Zabed Ahmad and Zahid Hussain Shoab (2009)	Bangladesh	Negative quality gap
Zavvar et al. (2008)	Iran (Azarbaijan)	Negative quality gap
Aghamolaie, Zare, and Abedini (2007)	Iran (Hormozgan)	Negative quality gap (Lowest: Reliability - Highest: Responsiveness)
Ahmadi and Ghelichli (2006)	Iran	Negative quality gap
Bradley (2006)	China	Negative quality gap
Chau (2006)	Canada	Negative quality gap (Highest: Assurance)

However, in all researches conducted on all aspects of service quality, the gap between the service quality expectations and perceptions is significant. Such a difference can be traced not only in the differences in the provided services quality but also in the students' ideas who were the sole receivers of the services. The culture and also the atmosphere in every university are different from other universities and because they affect the students' ideas, therefore, the observed gap in expectations and perceptions of service quality in different dimensions is not the same for all universities. Having a negative gap shows the fact that universities must try to increase the quality of their services and be more sensitive and aware of the student' requests and questions and it seems that we cannot manage universities using the traditional approaches. So, in order to be successful, universities must seek to continuously improve processes and outputs to satisfy their students as customers, the task that requires management to adopt strategies that are comprehensive and more effective.

For the service sector, one of the most important groups that can affect service quality as well as customers' satisfaction is the operational personnel. If such a sector or department lacks the required training and skills to fulfill their tasks and treat students in the best way possible, the dissatisfaction will occur. It becomes imperative for the universities to put more emphasis on the service providers who are directly communicating with the students. Pre-service and in-service training can help staff to deliver services more appropriately. Permanent notification of employees about the aspects and components of service quality can serve as an important factor in providing the continuous improvement of the provided services resulting in increased students' satisfaction levels.

### **Conclusion**

Quality, cost and efficiency have always been three major special focal points of universities and higher education institutions management, but quality received much attention and is being investigated more because it is believed the cost and productivity are influenced by the quality factor, that is as the quality is improved, the costs are reduced and productivity will be increased (Samoel, 2001). Based on current research findings, it is recommended that a good sum of money be allocated to update and maintain the equipments, and employees and staffs strive to maintain a proper and decent appearance in order to perform their tasks and services appropriately and give them the empowerment to solve the students' problems, and also in order to promote the organizational behavior and human relations and respect the clients (students), training classes must be held.

### **Acknowledgments**

The researchers would truly like to express their deep gratitude and respect to the research department vice president of Islamic Azad university of Sari who sincerely supported the project.

## References

- Aghamolaie, T., Zare, S. H., Pudat, A., & Kebriaie, A. (2008). Perception and expectation of quality primary health services recipients from service quality in health care centers in Bandar Abbas. *Hormozgan Medical Journal*, 11(3), 173-179.
- Aghamolaie, T., Zare, S. H., & Abedini, S. (2007). Educational services quality gap from the students' standpoint in Hormozgan University of Medical Sciences. *Development Stages in Medical Education*, 3(2), 78-85.
- Ahmadi, A. A., & Ghelichli, B. (2006). Designing the educational service quality management model in Payamenoor University. *PeykeNoor*, 3(3), 79-101.
- Arambewela, R., & Hall, J. (2006). A comparative analysis of international education satisfaction using SERVQUAL. *Journal of Services Research*, 6, 141-163.
- Arbuni, F., Shoghli, A. R., Badriposhteh, S., & Mohajeri, M. (2009). Studying the gap between expectations and educational services provided to students of Zanjan University of Medical Sciences in 2006. *Journal of Steps in the Development of Medical Education*, 5(1), 17-25.
- Bagheri, G., Zarei, H., & Amighi, F. (2011). The Relationship between empowerment and organizational citizenship behavior of the pedagogical organization employees. *Iranian Journal of Management Studies (IJMS)*, 4(2), 53-62.
- Bagherzadeh, K. M., & Bagherzadeh, F. (2010). Evaluating the service quality of higher education centers in Tabriz using SERVQUAL model and ranking the centers using Hierarchical Analysis Process. *Educational Sciences*, 2(8), 31-54.
- Bradley, R. B. (2006). Analyzing service quality: The case of post graduate Chinese student. Retrieved from: [http://www.leeds.ac.uk/researchprogs/fieadmin/user\\_upload/documents](http://www.leeds.ac.uk/researchprogs/fieadmin/user_upload/documents).
- Bazargan, A. (2002). *Educational Evaluation*. Tehran: SAMT Publication.
- Carrillat, F. A., Jaramillo, F., & Mulki, J. P. (2007). The validity of the SERVQUAL and SERVPERF scales. *International Journal of Service Industry Management*, 18(5), 472-790.



- Chin, K. S., & Pun, K. F. (2002). A proposed framework for implementing TQM in Chinese organizations. *International Journal Quality Management*, 19(3), 272-294.
- Chua, C. (2006). *Perception of quality in higher education*. AUQA Occasional Publication.
- Daniel, C., & Berinyuy, L. (2010). *Using the SERVQUAL model to assess service quality and customer satisfaction* [Master thesis]. UMEA University.
- De Oliveira, O. J., & Ferreira, E. C. (2009). *Adaptation and application of the SERVQUAL scale in higher education*. Florida, USA: POMS 20th Annual Conference Orlando.
- Donnelly, M., Dalrymple, J. F., Wisniewski, M., & Curry, A. C. (1995). Measuring service quality in local government: The SERVQUAL approach. *International Journal Pub Sector Management*, 8(7), 14-19.
- Engelland, B. T., Workman, L., & Singh, M. (2000). Ensuring service quality for campus career services centers: A modified SERVQUAL scale. *Journal of Marketing Education*, 22, 236-245.
- Farsijani, H., & Zandi, O. (2010). Defining and measuring the service quality strategic model. *Strategic Management Studies*, 1, 64-94.
- Fu, Y., & Parks, S. C. (2001). The relationship between restaurant service quality and consumer loyalty among the elderly. *Journal of Hospitality & Tourism Research*, 25, 320-336.
- Gatewood, R., & Field, H. (1990). *Human resource selection* (2nd ed.). Orlando, FL: The Dryden Press.
- Gorgi, M. B., Siami, S., & Nouraei, F. (2011). A comparative study of service quality at the Azad University. *News Journal in Industrial and Organizational Psychology*, 1(4), 33-41.
- Hill, Y., Lomas, L., & Macgregor, J. (2003). Students' perceptions of quality in higher education. *Quality Assurance Education*, 11(1), 15-20.
- Hosseini, M., Ahmadinejad, M., & Ghady, S. (2011). Reviewing and assessing the service quality and its relationship to customers' satisfaction: A Tejarat bank case study. *Business Evaluation*, 42, 88-97.
- Hudson, S., Hudson, P., & Miller, G. M. (2004). The measurement of service quality in the tour operating sector: A methodological comparison. *Journal of Travel Research*, 42, 305-312.

- Iranzade, S., Ammari, H., & Bakhshaiesh, S. (2010). Dimensions of service quality in banking industry: Applying the Gronross service quality model in the Pasargadae Banks northwest of the country. *Beyond Management*, 2(8), 35-50.
- Kebriaie, A., Rudbari, M., Rakhshaninezhad, M., & Mirlotfi, P. (2006). Students' assessment of the quality of educational services at Zahedan University of Medical Sciences. *East Physician Journal*, 7(2), 139-146.
- Lim, P. C., & Tang, N. K. (2000). A study of patients' expectations and satisfaction in Singapore hospitals. *International Journal Health Care*, 13(6-7), 290-299.
- Mostafa, M. M. (2007). A comparison of SERVQUAL and I-P analysis: Measuring and improving service quality in Egyptian private universities. *Journal of Marketing for Higher Education*, 16(2), 83-104.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. (1988). SERVQUAL: A multiple item scale for measuring consumer's perceptions of service quality. *Journal of Retailing*, 64(1), 12-40.
- Samoel, K. (2001). *Comprehensive quality management, integrated approach*. Tehran: Daneshkar.
- Wang, M., & Shieh, C. J. (2006). The relationship between service quality and customer satisfaction: The example of CJCU library. *Journal of Information & Optimization Sciences*, 27(1), 193-209.
- West, E. (2001). Management matters: The link between hospital organization and quality of patient. *Health Care*, 10(1), 40-48.
- Zabed Ahmed, S. M., & Zahid Hossain Shoeb, M. (2009). Measuring service quality of a public university library in Bangladesh using SERVQUAL. *Performance Measurement and Metrics*, 1(9), 17-32.
- Zahedi, S. H., & Niaz, J. (2009). Assessing the quality of electronic services in the Raja Passenger Trains Company. *Journal of Information Technology Management*, 1(1), 65 -82.
- Zavar, T., Behrangi, M. R., Asgarian, M., & Naderi, E. (2007). Evaluating the quality of educational services to students in Payamenoor Universities of the East and West Azarbaijan provinces. *Journal of Research and Planning in Higher Education*, 46, 67-90.