Assessment of Service Quality at Central Library of Management and Planning Organization (MPO), Iran

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Abstract

This study examines the quality of services at Iran's Central Library of Management and Planning Organization (MPO) from the viewpoint of its users. The research was conducted in two phases: First, the library and its services were compared to the Standards for Special Libraries published by the National Library of Iran (NLI). The library was found to meet most of the standards. Second, the quality of service provided by the library at expected and observed levels was examined from the viewpoint of organizational and non-organizational members using a modified version of the SERVQUAL questionnaire. Findings showed a significant was difference between two (expected and observed) levels, meaning that users' expectations have not been met. The most significant difference related to "appropriate collection of information resources". The results also showed there was no significant difference between organizational and non-organizational users' opinions about the quality of services. Findings also showed that "relevant information services" was the priority of user groups-users emphasized the need for timely and accurate information. There was a correlation between the rate at which the library conformed to the national standards and users' expectations of quality.

Keywords: Management and Planning Organization, National Library of Iran, SERVQUAL Questionnaire, Organizational Users, Non Organizational Users, Quality of Services.

Introduction

The mission of special libraries is to meet the information needs of their mother organizations. Since these libraries strive to assist researchers and users in professional and specialized fields, it is important for such libraries to know the quality of their performance and how well users are satisfied with their services.

The Management and Planning Organization (MPO) of Iran is the key organization at the center of many government policies including financial and economic policy. It arranges the management and planning affairs of the country. Its Central Library is one of the largest special libraries in the country and was established in early 1985. The library serves organizational and non-organizational users including students and researchers from universities and other institutions. The major portion of the collection falls into the subject areas of economics, management, and some related social sciences. At present, the library's collection is composed of more than 245,094 records and serves 7,402 registered members. Until now, no studies have investigated the quality of this library. This study aimed to address the questions of whether the library currently met NLI (National Library of Iran) standards for special libraries, and whether the actual level of services the library is providing met the expected one.

Literature Review

Many studies have been conducted to investigate library services in Iran; almost all of them have used quantitative methods. Gholamy (2001) used the Association of College and Research Libraries (ACRL) standards to assess Iranian academic libraries. He collected data through questionnaires and observations. The results showed that collections do not meet users' information needs.

Using questionnaires and observations, Boroomand (2003) found that the special libraries he surveyed had problems such as outdated information; insufficient staff; and inadequate budget, space, and information resources.

Several studies investigated the quality of library services outside of Iran. Some of them used the modified SERVQUAL to assess users' expectations and perceptions about the quality of library services. For example, in 1994, 1997 and 1999, Texas A and M University Libraries conducted a study using SERVQUAL. They found a discrepancy between user expectations and perceptions of service quality with respect to the dimension of reliability (Coleman, Xiao, Bair, & Chollett, 1997).

Donnelly, Campbell, and Wisiniewski (1995) studied quality of services in the Stirling Library in Scotland using the SERVQUAL instrument. After analyzing 368 questionnaires, the researchers found that a significant difference existed between expected and perceived quality of services.

Landrum and Prybutok (2004) evaluated a modified version of the SERVQUAL questionnaire to determine how effectively it measured service quality within the information service industry. They evaluated instruments designed to measure information center and information system success to determine how effectively they measure success in the library system application and how they relate to SERVQUAL. Responses from 385 end-users at two U.S. Army Corps of Engineers libraries were

obtained through a mail survey. Results indicated that service quality is best measured with a performance-based version of SERVQUAL and that measuring importance may be as critical as measuring expectations for management purposes. Results also indicated that service quality is an important factor in the success of programs in the library.

Nimsomboon and Nagata (2003) examined the service quality of Thammasat University Library from users' perspectives. They identified the dimensions that affect customers' evaluation of service quality. They also investigated the problems clients encountered when using library services. The modified SERVQUAL questionnaires were distributed for data gathering. The results showed that most users' expected expectations were not met. The greatest deficiency was found to be insufficient and non-current collections.

Methodology

This survey was conducted in the central library of MPO from January 24th to March 2nd, 2006. To investigate the service quality, the current situation of the library was compared to the Standards for Special Libraries published by the National Library of Iran (NLI). This was done through direct observation of the library and interview with the head of library and head of documents center in MPO.

Second, the service quality was investigated using the SERVQUAL questionnaire. Randomly selected respondents were asked to complete the questionnaires. A pretest was conducted to make the statements understandable in context. Data were collected over 5 weeks, and 166 of 270 questionnaires were completed. Researchers processed the data, validated them, and transferred them to the SPSS software, version 11.5. The researchers then statistically analyzed the data.

Research Questions

This study aimed to answer the following research questions:

1. How closely does the current situation of the library conform to NLI standards for special libraries?

2. Is there a significant difference between expected and actual levels of service at the MPO Central Library?

Research Tool

Study of the gap between expected and observed quality of services was conducted using SERVQUAL instrument.

What is SERVQUAL?

SERVQUAL, a widely used questionnaire, was introduced in 1985 by Parasuraman, Zeithaml and Berry (1985) as an instrument for assessing customer perceptions of service quality in service and related organization. The questionnaire contains 2 sets of 22 questions that measure expected (optimal expected) and observed (current) levels of service.

The first set of questions measures customers' expected level of service on a seven-point scale. The second set of 22 statements is identical to the first set. Here, respondents rate their perceptions of the level of service given by the institution or organization (observed level of service). For each pair of statements, the difference between the ranked perception and the ranked expectation is calculated. The average of the gap in scores is the SERVQUAL overall quality score (Nitecki & Hernon, 2000). SERVQUAL consists of the five following dimensions:

1. Tangibles: Physical facilities, equipment, and appearance of personnel
2. Reliability: Ability to perform the promised service dependently and accurately
3. Responsiveness: Willingness to help customers and provide prompt service
4. Assurance: Knowledge and courtesy of employees and their ability to inspire trust and confidence
5. Empathy: Caring, individualized attention the institution provides its customers with.

Several studies supported the SERVQUAL as a reliable and valid instrument to investigate the service quality in information centers (Jiang, Klein, & Carr, 2002; Parasuraman, et al., 1991; Watson, Pitt, & Kavan, 1998).

Findings

Comparing the library's current situation with NLI standards revealed that the library conformed to 63.7% of the standards. The library conformed most closely to the "Budget" standard (85.5%) and conformed least to the standard for "Building and Facilities" (44.5%).

Today most libraries suffer from a lack of budget and financial resources. However, the situation in the Central Library of MPO is different. The MPO is the government's budget allocating agency, which has a beneficial influence on the library's finances. However, the library's current building lacks some desirable features because of the space limitations at its location in central Tehran.

Expected and Observed Levels of Services

To study the difference between expected and observed actual levels of services from the viewpoint of users, a paired *t*-test was conducted. Table 1 summarizes the

results, which reveal a significant difference between expected and actual services. The mean difference between the two levels of services is 0.8. This indicates that service quality has not met users' expectations.

Table 1

Paired t-test: Difference between Expected and Actual (Observed) Service Level

Service quality	N	Mean	SD	Mean diff.	SD mean diff.	t	Df	p
Expected level	166	6.48	0.44	0.8	0.79	12.94	165	.000
Actual level	166	5.68	0.71					

In order to examine the results in more details, the Wilcoxon test was used. The results are presented in Table 2. Seventy-five percent of users rated the actual level of services lower than or equal to 6.23. Only 25 percent of users ranked the expected service lower than or equal to 6.26. This confirms the result of the *t*-test.

Table 2

Wilcoxon Test Results

Service quality	Minimum	Maximum	Percentiles		
			25th	50th (median)	75th
Actual level	2.91	6.91	5.31	5.68	6.23
Expected level	5	7	6.26	6.49	6.86

After testing users' overall expectations and perceptions of the library services, the quality of services in each components of the SERVQUAL instrument was examined. Tables 3-5 show the results.

Results reported in Table 3 reveal a significant difference between expected and actual levels in all dimensions. The largest gap relates to the dimension Assurance and the smallest one to Empathy. It can be concluded that according to respondents' point of view library staff do their best and users react gratefully to their efforts.

Table 3

Paired t-test: Difference between Expected and Actual Service Levels for Five Dimensions (ranked by gap size)

Dimensions	Levels	N	Mean	SD	Mean diff.	SD mean diff.	t	Df	p
Assurance	Actual	166	5.66	0.96	0.88	1.09	10.37	165	.000
	Expected	166	6.54	0.61					
Tangibles	Actual	166	5.65	0.78	0.85	0.9	12.13	165	.000
	Expected	166	6.5	0.58					

Dimensions	Levels	N	Mean	SD	Mean diff.	SD mean diff.	t	Df	p
Reliability	Actual	166	5.76	0.94	0.82	1.06	10.05	165	.000
	Expected	166	6.59	0.6					
Responsiveness	Actual	166	5.87	0.85	0.7	0.98	9.3	165	.000
	Expected	166	6.58	0.57					
Empathy	Actual	166	5.48	1.1	0.54	1.19	5.86	165	.000
	Expected	166	6.03	0.95					

In order to identify the size of the gap between expected and actual service levels in all categories, a *t*-test was used (table 4). Results revealed that in all but one dimension, there is a significant difference between users' expectations and actual services levels. The exception is the dimension "Having the users' best interests at heart," which is related to Empathy. It means that users' expectations have been met excellently in this dimension. In other words, users were conscious of the efforts made by library staff.

Table 4

Paired t-test: Difference between Expected and Actual Service Levels for Components of Five Dimensions

dimensions	Statements	Level of services	Mean	SD	Mean Diff.	Df	t	P
Assurance	Convenient access to library collections	Actual	4.93	1.52	1.38	161	9.67	0.00
		Expected	6.30	1.12				
	Library staff with the knowledge to answer user's questions	Actual	5.62	1.18	0.98	164	9.21	0.00
		Expected	6.61	0.76				
	Library staff who are always courteous	Actual	6.41	1.01	0.26	163	2.9	0.004
		Expected	6.67	0.71				
Tangibles	Relevant collection of information resources	Actual	5.26	1.48	1.48	160	11.68	0.00
		Expected	6.74	0.71				
	Physically comfortable equipments	Actual	5.55	1.11	1.06	165	10.77	0.00
		Expected	6.61	0.77				
	Maintenance of library equipment	Actual	5.6	1.35	0.96	158	8.1	0.00
		Expected	6.57	0.88				
	Modern equipment	Actual	5.41	1.21	0.76	163	5.98	0.00
		Expected	6.17	1.18				
	Visually appealing materials (such as pamphlets,	Actual	5.74	1.29	0.58	162	4.92	0.00

dimensions	Statements	Level of services	Mean	SD	Mean Diff.	Df	t	P
	Statements) associated with the service	Expected	6.31	1.14				
	Making customers feel safe in their transactions	Actual	6.07	1	0.56	164	6.35	0.00
		Expected	6.64	0.67				
	Employees who have a neat, professional appearance	Actual	6.01	1.17	0.44	162	3.7	0.00
		Expected	6.45	1.06				
Reliability	Providing services as promised	Actual	5.17	1.39	1.29	162	10.21	0.00
		Expected	6.47	0.77				
	Providing services at the promised time	Actual	5.75	1.2	0.83	160	7.34	0.00
		Expected	6.61	0.87				
	Dependability in handling customers' service problems	Actual	6.32	0.97	0.36	163	4.22	0.00
		Expected	6.68	0.71				
Responsiveness	Filing returned resources on the shelves	Actual	5.39	1.46	1.1	165	9.06	0.00
		Expected	6.49	0.93				
	Readiness to respond to customers' requests	Actual	5.7	1.21	0.87	165	7.59	0.00
		Expected	6.57	0.82				
	Willingness to help users	Actual	5.8	1.22	0.74	162	7.02	0.00
		Expected	6.53	0.83				
	Prompt service to customers	Actual	5.89	1.18	0.69	160	6.24	0.00
		Expected	6.58	0.83				
Empathy	Library staff who understand the needs of their users	Actual	5.32	1.39	0.88	164	7.23	0.00
		Expected	6.2	1.13				
	Employees who deal with customers in a caring fashion	Actual	5.65	1.4	0.65	163	5.52	0.00
		Expected	6.3	0.93				
	Giving users individual attention	Actual	5.64	1.41	0.39	163	3.36	0.001
		Expected	6.03	1.31				
	Having the users' best interests at heart	Actual	5.58	1.29	0.21	155	1.62	*0.107**
		Expected	5.59	1.47				

**there is significant difference between actual and expected levels

The researchers used descriptive statistics in order to identify what percentage of users' expectations have been met. As shown in Table 5, the highest frequency (42.8%) belongs to Responsiveness. This means that 42.8% of users' expectations have been met optimally.

Table 5

Frequency of Users' Expectations for Five Dimensions

Users' expectations met	Dimensions				
	Tangibles	*Assurance*	*Responsive-ness*	*Reliability*	*Empathy*
Very seldom	0	0.6	0	0	1.2
Seldom	0.6	1.8	1.2	1.8	1.8
Rarely	1.8	4.2	3	7.8	10.8
Less than often	16.9	13.9	11.4	15.7	18.7
Often	45.8	45.2	41.6	39.2	33.1
Very often	34.9	34.3	42.8	35.5	34.3
Total	100	100	100	100	100

As already mentioned, the library has two user groups (organizational and non-organizational). In order to identify the difference in expected and actual service levels from both groups' viewpoints, an ANOVA test was used. As shown in Table 6, there is no significant difference between their viewpoints for the majority of dimensions. The difference is significant only with regard to the sub-dimension "Easy to understand materials such as handouts and statements."

Table 6

ANOVA Results: Difference from Organizational and Non-organizational Users' Viewpoints

Dimensions	Groups	Difference between groups	F	p
Tangibles	Organizational	0.2	1.71	0.19
	Non-organizational			
Empathy	Organizational	0.11	0.32	0.57
	Non-organizational			
Assurance	Organizational	0.1	0.32	0.56
	Non-organizational			
Responsiveness	Organizational	0.09	0.27	0.6
	Non-organizational			
Reliability	Organizational	0.08	0.22	0.63
	Non-organizational			

In order to rank the five dimensions by their importance to the library users, a Friedman test was conducted. Table 7 shows the results: both organizational and non-organizational users ranked many features in the same hierarchy of importance

(indicated by √). Their viewpoints differed only in the relevant information services and appearance of the library's physical facilities. Users put the most emphasis on reliability, which ensures the ability to perform the promised service dependably and accurately. Users did not consider empathy to be a high priority. It can be concluded that researchers at this special library emphasize the relevancy of the information they get from library resources rather than other concerns. To support users' needs, libraries should try to deliver accurate and timely information.

Table 7

Ranking Five Features from Users' Viewpoint

Dimensions	Ranked by all users	Ranked by organizational users	Ranked by non-organizational users
Reliability	1√	1√	2
Tangibles	2√	2√	1
Assurance	3√	3√	3√
Responsiveness	4√	4√	4√
Empathy	5√	5√	5√

Factors Affecting the Service Quality in the Library

To identify the factors influencing the quality of services in the library, researchers used factor analysis. Factor analysis uses homogeneity between components and sets them in groups. This analysis could help library managers improve the quality of their services. As a result of this analysis, six separate groups of statements were introduced. Researchers used the professionals' opinions to name the groups, which are as follows:

1. Bilateral intention to information-seeking and giving by users and information specialists: This factor refers to librarians' efforts to prepare accurate answers to information requests of users, users' willingness to trust the responses given by librarians, and users' confidence in librarians' capacity to meet their information needs.

2. Keenness and the capability of library staff serving library users: This factor emphasizes the intention and capability of library staff preparing responses to the users' needs. Library staff capability is the determining factor in library service quality. Library managers are to improve their staff capabilities by continuous training.

3. Doing routine jobs on time: There are some routine jobs in the library, such as shelving returned materials, which need to be done on time.

4. Accurate information distribution by trained staff: The appearance and layout of the library environment and mental alertness of librarians are factors which promote user satisfaction.

5. Standard of work environment: The work environment including air conditioning, silence, and so on, could affect the users' satisfaction with the quality of services.

6. Delivering error-free information: It is very important to deliver valid, error-free information to answer users' information needs. This also has policy-making implications.

Discussion

Comparing the current situation of the library with the standards for Iranian special libraries showed that the library is in a relatively satisfactory position. Examining users' expectations and actual service perceptions with regard to the services of the MPO Central Library showed a significant difference between expected and actual service levels in all dimensions. Looking at both analyses showed a convergence between published standards and users' perspectives. For example, with regard to Tangibles, the largest gap is related to the lack of adequate collections of information resources. The rate of conformity to collection standards was also low (56.2%). This agrees with findings of other studies carried out in Iran. Nimsomboon and Nagata (2003, p. 58) introduced "insufficient and outdated collection" as a source of difference between users' expectation and perception of library services.

The largest gap between expected and actual services concerned comfortable physical facilities. The rate of conformity to the Facilities and Building standard was low as well (44.5%). The results gained about the dimension Responsiveness showed a significant difference between expected and actual levels. The conformity rate to the standard for staff was 63.7%. If library managers implement plans for appropriate staff instruction and also teach the librarians about new technology; then clearly the library will serve more efficiently.

The results related to the dimension Reliability showed a significant difference between the two levels. The conformity rate to the standard for services was also rather low (61.5%). Reliability concerns the ability to perform the promised service dependently and accurately. If a library promises a service, managers and staff should try to provide it in the best way possible. Reliability is a critical factor that could secure users' trust in library program and services. A study conducted by Coleman et al. (1997) also identified reliability as a dimension in which users' perception was lower than their expectation.

Conclusion

This study was conducted in Iran, and its findings can be used by MPO library managers. The factors identified can also be investigated by researchers to establish

brief quality guidelines for staff. Other identified factors which are related to quality of library services can be categorized into three general categories:

1. Factors related to library environment ("Standard of work environment" and "Doing routine jobs on time")

2. Factors related to information dissemination ("Delivering error-free information" and "Accurate information distribution by trained staff")

3. Factors related to library personnel ("Bilateral intention" and "Keenness and capability of library staff")

Two of the three general factors related to library staff rather than to the library as a place. It is a good idea to have a library with attractive decoration and furniture, but quality of services provided by librarians is the most important factor affecting users' judgment of quality. More focus on staff development and training will make it easy for libraries to provide their users with quality services.

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