

**AN INSTRUMENT FOR MEASURING THE CRITICAL FACTORS
OF SERVICE QUALITY IN UNIVERSITY LIBRARIES: AN
APPLICATION OF FATI H UNIVERSITY**

by

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I certify that this thesis satisfies all the requirements as a thesis for the degree of Master of Science.

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ABSTRACT

There are different definitions about service quality. Researchers explain service quality, as “receiving a significant amount of attention”. Most studies in this field have dealt with the measurement of service quality. SERVQUAL is a survey instrument, to measure the quality of service by five dimensions: tangibles, reliability, responsiveness, assurance, and empathy. Historically, the purpose of this study is to provide an instrument that measure service quality within libraries and service quality should be related to user satisfaction. New instrument is a modified version of SERVQUAL instrument for Library. This research also presents a case study, with an application in a university library, for the development of new instrument to more effectively measure service quality that is based on customer satisfaction.

Keywords: Service Quality, SERVQUAL (Service Quality Instrument), Customer Satisfaction, Fatih University Library.

**ÜNİVERSİTE KÜTÜPHANELERİNDE HİZMET KALİTESİNİN KRİTİK
FAKTÖRLERİNİ BELİRLEME AMACINA YÖNELİK BİR ÖLÇEĞİN
GELİŞTİRİLMESİ: FATİH ÜNİVERSİTESİ UYGULAMASI**

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Yüksek Lisans Tezi – Endüstri Mühendisliği
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Tez Yöneticisi: Doç.Dr. Selim ZAIM

ÖZ

Hizmet kalitesi hakkında farklı tanımlar vardır. Araştırmacılar hizmet kalitesini “özen göstermenin öneminin kabul edilmesi” olarak açıklarlar. Bu alandaki çoğu çalışma, hizmet kalitesinin ölçümüne değinir . SERVQUAL hizmet kalitesini, beş ölçü; görünüm, güvenilirlik, heveslilik, güvence ve empati ile ölçen bir ölçüm aracıdır. Bu çalışmanın amacı kütüphanelerdeki hizmet kalitesini, kullanıcıların memnuniyetine bağlı olarak ölçecek bir enstrüman geliştirmektir. Yeni enstrüman, SERVQUAL enstrümanın kütüphane için değiştirilmiş şeklidir. Bu araştırma, bir kütüphanedeki müşteri memnuniyetine dayalı hizmet kalitesinin yeni geliştirilen enstrüman kullanımıyla ölçülmesini, örnek çalışma olarak sunmaktadır.

Anahtar Kelimeler: Hizmet Kalitesi, Hizmet Kalitesi Enstrümanı, Müşteri Memnuniyeti, Fatih Üniversitesi Kütüphanesi.

DEDICATION

To my fiancé and to my parents

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LIST OF SYMBOLS AND ABBREVIATIONS

SYMBOL / ABBREVIATION

ARL	Association of Research Libraries
E-Library	Electronic Library
KMO	Kaiser-Meyer-Olkin Measure
LibQual+	Library Quality
MSA	Measures of Sampling Adequacy
ServQual	Service Quality
SPSS	Statistical Package for he Social Sciences

CHAPTER 1

INTRODUCTION

There are different definitions about service quality. Researchers explain service quality, as “receiving a significant amount of attention”.

Over the last several years, there have been a variety of discussions in the literature on different issues related to service quality measurement. The traditional orientation of measuring the quality of an academic library in quantifiable terms of its collection and use no longer offers attainable goals; nor does it adequately address the campus community's demands for information. New ways to conceive of and measure quality in libraries are needed--and alternate approaches emerge in the business sector where organizations are increasingly evaluated in terms of their service quality.

Aims of the study are as the followings:

- To assess the overall service quality of Fatih University Library from the users' perspectives.
- To assess the service quality of Fatih University library from the perspective of each different respondent user group. (Researchers, staff, graduate and students) .
- To identify the dimensions that determine the customers' evaluation of service quality in Fatih University Library.
- To investigate which are the essential attributes that library managers should allocate the resource for good service quality.
- To identify the problems users had encountered when involved in library service.

The main aim of this study is to provide an instrument that measure service quality within libraries and service quality should be related to user satisfaction. New instrument is a modified version of SERVQUAL instrument for Library.

In the study, the SERVQUAL survey instrument was selected as the basis for development due to its long history and experience with it in academic libraries.

In the second chapter, study presents valuable insights in the literature to understand service quality and measuring of the service quality in the library.

In the third chapter, a case study, with an application in a university library, is presented for the development of new instrument to more effectively measure service quality that is based on customer satisfaction.

It is important for libraries to know how well their quality by getting feedback from users because it is the factor for libraries to succeed in service quality. A questionnaire was modified and applied in a university library in Turkey. The university is Fatih University in Istanbul. From the total of 300 questionnaires distributed, 201 were returned as duly completed. A model that is based on the relationships among the constructs was employed. The survey instrument exhibite a satisfactory level of internal reliability. ANOVA and KMO and Bartlett's tests were applied. Then, the applicable and non-applicable features for library users were determined.

We have approached our study mindful of its historical context. Many of the ideas and recommendations that we have made in this study were advanced with compelling reasoning.

CHAPTER 2

LITERATURE REVIEW

2.1 BACKGROUND

Historically, the quality of a library has been described in terms of its collection and measured by the size of the library's holdings and various counts of its uses. "A measured of library quality based solely on collections has become obsolete" [1].

SERVQUAL is a mechanism to shift the assessment of quality of a library from the traditions of measuring collection size and counting incidents of its uses, to begin investigating how the provision of services relates to the library users' service quality expectations. SERVQUAL has been used in various service industries, including academic, public, and special libraries [2].

2.2 SERVICE QUALITY

2.2.1 About Service Quality

The term *quality* is explained by various illustrative words. Many quality leaders define quality using different approaches. Juran refers to the user approach as "fitness of use". Crosby described the manufacturing based approach as "conformance to requirements" [3,4].

Service quality is a concept that has aroused considerable interest and debate in the research literature because of the difficulties in both defining it and measuring it with no overall consensus emerging on either [5,6].

Service quality is the extent to which a service meets customers' needs or expectations [7]. Service quality can thus be defined as the difference between customer expectations of service and perceived service. If expectations are greater than performance, then perceived quality is less than satisfactory and hence customer dissatisfaction occurs [8].

Ghobadian posit that most of the service quality definitions fall within the "customer led" category [9]. Juran elaborates the definition of customer led quality as "features of products which meet customers 'needs and thereby provide customer satisfaction" [10]. As service quality relates to meeting customers' needs, we will be looking at "perceived service quality" in order to understand consumers [11]. Quality of service as the difference between customers' expectation and their perceptions of the actual service received [12].

Other researchers look at perceived service quality as an attitude. Perceived quality "whether in reference to a product or service" as "the consumers' evaluative judgment about an entity's overall excellence or superiority in providing desired benefits". Service quality as an attitude "formed by a long-term, overall evaluation of a performance". Attitude is defined as "a consumer's overall, enduring evaluation of a concept or object, such as a person, a brand, or a service" [13, 14]. Basis of the view is elaborated by the latter.

As perceived service quality portrays a general, overall appraisal of service i.e. a global value judgment on the superiority of the overall service, it is viewed as similar to attitude.

2.2.2 Measuring Service Quality

Clearly, from a Best Value perspective the measurement of service quality in the service sector should take into account customer expectations of service as well as perceptions of service. However, "It is apparent that there is little consensus of opinion and much disagreement about how to measure service quality" [13].

In business industries, SERVQUAL is an alternative instrument proposed to measure service quality from customer perspectives and perhaps it has been the most popular standardized questionnaire to measure service quality [15, 16].

In the library setting, SERVQUAL was used to assess library quality service continually and it seems that culture of assessment in libraries had strong international dimensions as there is much potential for international collaboration on assessing library service quality.

2.3 SERVQUAL

2.3.1 History of SERVQUAL

SERVQUAL was introduced in 1988. It consisted of 22 pairs of statements, the first of which measure the expectations of a service provider's customers by asking each respondent to rate, on a seven-point scale, how essential each item is for an excellent service provider to deliver. The second set to 22 identical statements ascertains the respondent's perceptions to the level of service given by the institution or organization examined. For each pair of statements, the difference between the ranked perception and the ranked expectation is calculated; the average of the gap scores is the SERVQUAL overall quality score. [1]

2.3.2 SERVQUAL Model

The designers also developed the Gaps model (It is shown Figure 2.1) of service quality and the definitions of each of the gap are as follows:

Gap 1: The discrepancy between customers' expectations and management's perceptions of these expectations;

Gap 2: The discrepancy between management's perceptions of customers' expectations and service quality specifications;

Gap 3: The discrepancy between service quality specifications and service delivery;

Gap 4: The discrepancy between actual service delivery and what is communicated to customers about it; and

Gap 5: The discrepancy between Customers' expected services and perceived service delivered.

The first four gaps are the major contributors to the service-quality gap that customers may perceive. The fifth gap is the basis of a customer-oriented definition of service quality: the discrepancy between customers' expectations for excellence, and their perceptions of actual service delivered. The narrower the gap is, the better service quality is provided so the managers have to reduce Gap 5 as smallest as they can in order to provide excellent service to their customers.

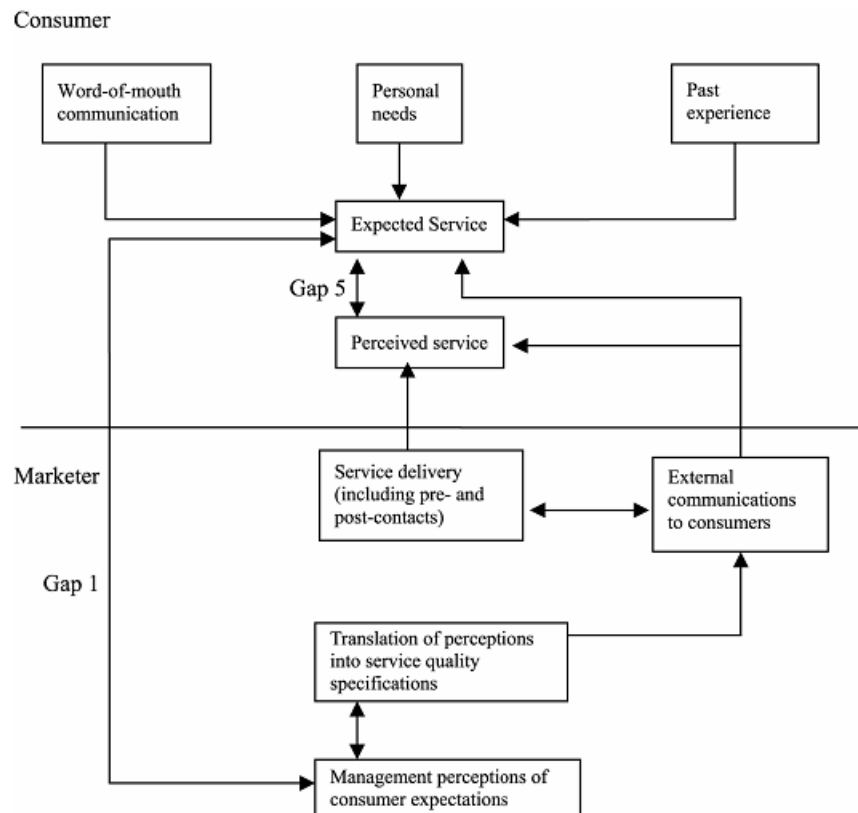


Figure 2.1: GAP Analysis

2.3.3 Dimension of SERVQUAL

To test the data by factor analysis, the designers concluded that SERVQUAL was consisted of 5 dimensions as follows:

Reliability: Ability to perform the promised service dependably and accurately;

Assurance: Knowledge and courtesy of employees and their ability to convey trust and confidence;

Empathy: The caring, individualized attention the firm provides to its customers;

Responsiveness: Willingness to help customers and provide prompt service; and

Tangibles: Appearance of physical facilities, equipment, personnel, and communications materials.

2.3.4 SERVQUAL in Library

SERVQUAL has been used in a host of profit and nonprofit institutions to assess quality service for over 10 years, and the SERVQUAL scale has been described and investigated in over 100 articles and 20 doctoral dissertations. In the library setting, several researchers recognized the potential for SERVQUAL to serve as a tool to permit moving beyond traditional productivity metrics to outcome assessments of service quality from a user perspective. The conclusions of this research are mixed, and, at least in the view of Syed Andaleeb and Patience Simmonds, “Although this vein of research has been pursued with some enthusiasm, empirical support for the suggested framework and the desirability of the measurement instrument has not been very encouraging.”

Other reports, however, have been more favorable. Under the new measures initiative, the ARL is sponsoring a pilot administration of the SERVQUAL instrument in 12 of its member institutions in 2000 [17].

Given the research libraries’ continued investment in SERVQUAL as a psychometric instrument, an essential question to consider is that of the instrument’s integrity, particularly, the construct validity of SERVQUAL as a test instrument (does it actually measure what it

intends to measure, or more fundamentally, what does SERVQUAL measure; is the instrument useful for assessing quality service in the library setting, and is it reliable and accurate.

The researchers of various subject areas contribute and adapt SERVQUAL as the instrument to assess service quality and also in library setting.

The modification of SERVQUAL model was introduced to academic library managers [19]. They used the data collected from surveys and focus groups to refine the SERVQUAL model in order to develop a robust survey instrument for use specifically in library and information services. Two later research projects have tested the validity of the standard instrument used in the SERVQUAL model.

Nitecki's doctoral research tested the SERVQUAL instrument on the three aspects of library service- interlibrary loan, reference, and closed-reserve and concluded that the instrument was useful in determining how well services match user expectations [1].

Hernon tested the validity of the SERVQUAL instrument for evaluating academic libraries among library students and librarians, and came up with an instrument based on SERVQUAL [12].

Now, there is much potential for international collaboration on assessing library service quality as seen from a cross-cultural study comparing perceptions of service quality among library users in New Zealand and China and unequivocally concluded that there are global commonalities in the way users think about library service quality [19].

In Thailand, the first library service quality assessment by using SERVQUAL was conducted. User *Expectations and Perceptions of Library Service Quality of An Academic Library in Thailand*". The survey was set at an academic library at Mahasarakham University (MSU) Thailand, to examine user expectations and perceptions of library service quality. The survey focused on three services areas: a) circulation; b) reference; and c) computer information service. The instrument is a Thai translation of the SERVQUAL instrument as adapted by Danuta Ann Nitecki for use in academic libraries.

A follow-up survey of library staff based on the findings of the SERVQUAL instrument was developed by the researcher to prioritize actions for service improvement. The subjects of this study consisted of 582 graduate students, 84 faculty members of Mahasarakham University, and 25 professional library staff members. Presently, academic libraries in Thailand have faced the same situations as most academic libraries in the world such as money cutback, digital environment, and have to involve in some form of evaluation caused by the policy of the educational quality assurance. The library managers have to seek the better way to improve the service quality in order to survive and derive user's loyalty [20].

2.3.5 Concept of Service Quality for Library Assessment

Service quality was defined in different ways but for the concept of service quality that use for library evaluation is “ *to examine the difference between a customer's expectations and the customer's perceived sense to actual performance*” [21].

Most typically, service quality is defined in terms of reducing the gap between user expectations and actual service provided.

Though there is ambiguity between the concept of service quality and Satisfaction. Service quality focuses on the interaction between customers and service providers, and the gap or difference between expectations about service provision and perception about how the service was actually provided. Satisfaction, on the other hand, does not involve gap analysis [22].

The precursors o service quality can be configured as follows:

The customer

1. past experience of the customers:
2. word-of-mouth from other customers:
3. personal needs of the customer: and
4. national culture of the customer:

The service provider:

5. Communications (direct and indirect) about what the customer can expect.

Competitors:

6. service provided by other providers that acts as a benchmark.

2.3.6 Related Research

The researchers in the field of library and information science used a modification of SERVQUAL as an alternative instrument for shifting the way of assessing library service quality.

“ Library researchers have begun to use the SERVQUAL in their own studies. Reviewing the literature on the SERVQUAL, Nitecki (1995) found that by 1994 it had been introduced explicitly to the library field through at least four empirical studies undertaken in public, special, and academic libraries and through three descriptive articles about service quality” [23].

2.3.7 SERVQUAL Dimensions in Library Setting

Among the 5 dimensions of SERVQUAL, the users rated reliability was most important and tangibles was least important. This finding is parallel to the users reported the high expectation on reliability. On the contrary, tangibles and reliability were the key concerns of library patrons.

Anyway, most findings reflected that reliability is the most important quality in evaluating library services that is similar to the result which the designers of SERVQUAL proposed.

For the number of SERVQUAL dimensions, there are empirical research which examined dimensions of SERVQUAL instrument. To test the data of user expectations by factor analysis, however, suggest a three-factor relationship among the 22 SERVQUAL items

rather than the five collapsed dimensions which the scale's designers identify from other applications. The point of view of researchers cited in the review can be concluded that “*there may be three dimensions in libraries, tangibles, reliability or service efficiency, and affect of service, and that there is a need for further research to explore the dimensions*” that may underlie quality service as a construct in the research library setting.” [24].

2.3.8 The Dimensions of The LibQUAL+

In October 1999, LibQUAL+ was developed to be a tool for library service quality assessment by the Association of Research Libraries. This new tool is a derivative of the SERVQUAL protocol. Through the LibQUAL+. The dimensions of the tools are as the followings:

Affect of Service: It collapses three of the service dimensions identified by SERVQUAL into one. These dimensions are *Assurance, Empathy, and Reliability*.

Reliability: Ability to perform the promised service dependably and accurately.

Access to Information: The access was ensured through the provision of comprehensive collections and ubiquity of access or the provision by all means possible of barrier-free access to information at the time of need.

Library as Place: The ability to meet community requirements for utilitarian space for study, collaboration, or rendezvous.

The concept about Library as Place is oftentimes especially important for undergraduates whose options are more limited than graduate students and faculties

Self-reliance: The ability to foster self reliant information seeking behavior through instruction, mentoring, signage and other means.

2.3.9 Service Quality and Customer Satisfaction

Service quality relates to customer satisfaction. Satisfaction more short-term measure, and focuses on a personal, emotional reaction to service.

Service quality and customer satisfaction carry weight with libraries or other service organizations. They try to increase service quality of the organization and to produce customer contentment and loyalty. There is an interrelationship between both concepts, with service quality serving as the previous to satisfaction [25,26].

Rachel Applegate identifies three models of satisfaction and also mentions that there is no “simple Yes/No question or questionnaire to determine user satisfaction [27].

Customer expectation of services is set in two stages. First, the consumer develops expectation about the company during the customer’s first encounter with the service firm, via advertising and customer word of mouth. Second, after a previous encounter with the firm, the consumer compares their expectations to the actual product performance.

2.3.10 Conceptual Model

When service quality is used to refer to specific information about the provided services, service quality is recognized as an antecedent of customer satisfaction [28]. Therefore the proposed model hypothesizes that satisfaction is a consequence of service quality. Many empirical studies supported this model for identifying the causal link between service quality and satisfaction [29, 30].

The determinants of service quality will be broken down into two main categories, namely tangible factors, which refer to technology, physical facilities, personnel, and communication material etc. And intangible factors, which consist of five sub-factors, namely Assurance, Responsiveness, Reliability, Courtesy, and Empathy. Reliability refers to the ability to perform the promised service dependably and accurately.

Responsiveness reflects the willingness to help customers and provide prompt service.

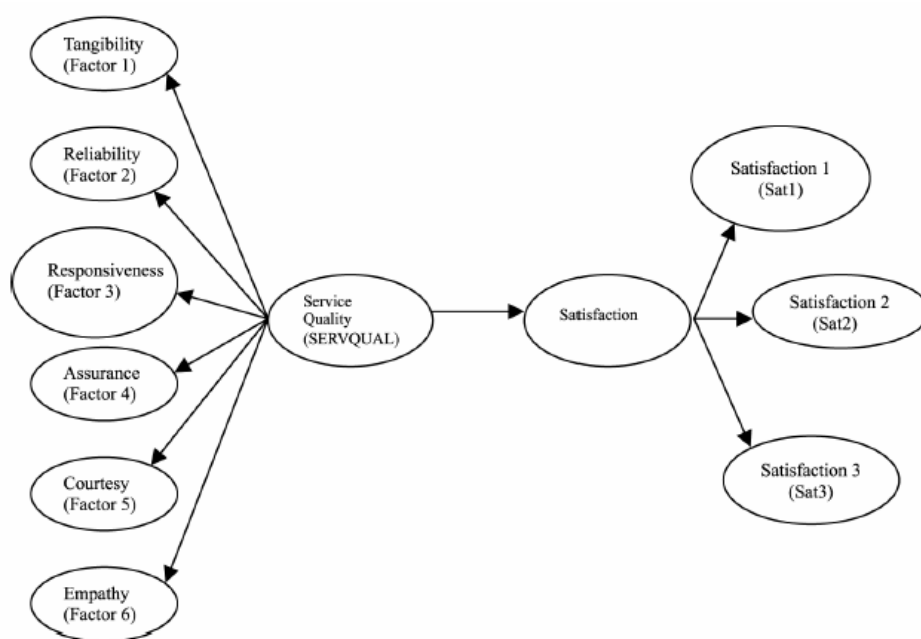


Figure 2.2: Conceptual Model

Assurance reflects the knowledge of employees and their ability to inspire trust and confidence. Courtesy refers to the kind behavior of employees to the customer.

Empathy refers to caring, individualized attention the firm provides its customer.

Model is based on the relationships among the constructs that is shown in Figure 2.2. The model is based on the expectancy/disconfirmation paradigm, which provides the theoretical basis for the link between service quality and satisfaction, and which examines whether perceptions of service quality are directly related to the customer's satisfaction [31].

CHAPTER 3

CASE STUDY

3.1 STUDY LOCATION

3.1.1 Fatih University

Founded by Turkish Association of Health and Medical Treatment, Fatih University officially opened on 18 November 1996. Fatih University is administered by a Board of Trustees having 15 Members. The Faculty of Arts and Sciences, The Faculty of Economics and Administrative Sciences, Engineering Faculties, Institutes of Sciences and Social Sciences and School of Vocational Studies are located in Istanbul while the School of Medicine, School of Nursing, Vocational School of Medical Studies, and School of Vocational Studies are in Ankara.

The University started offering courses in the 1997-1998 academic years at the Büyükçekmece Campus in Istanbul. The social facilities and faculty buildings, and residences are part of the modern academic environment found in the campus. The Social Facilities Building includes the library, cinema hall, cafeteria, dining hall, bookshop, stationery, tailor, and hairdresser and internet cafe. Apart from regular courses, research is also conducted in the laboratories found in the faculty buildings.

There are 70 student clubs that provide the students with the opportunity to perform social and cultural studies [32].



Figure 4.1: Study Location

3.1.2 Fatih University Library

The library that is established in order to support education and research activities, and to provide, organize, and present all information and documents that are required in the university, is located in the Büyükçekmece Campus Block D1. It has an 840 meter square space, and 250 chair capacity. Central library has three parts: 1-entrance, 2-reference and books, and 3-reading places.

In the entrance part there exist the circulation and book borrowing service, and photocopying. Additionally, reserved course manuals, and CD-DVD resources are presented here, as well as there are computers serving for catalog search.

In the references and books area, there are books and periodicals classified via LC classification. The entrance of this part includes reference books which involves encyclopedias and dictionaries. Moreover, there is a place for newspapers and magazines, Atatürk Research Library, and administrative offices in this part.

In the corridor connecting reference part and reading part, there are shelves for magazines, and these magazines are placed here.

In the reading place, besides reading desks, there are computers for electronic databases and two book collections; Nadir Eserler, and Şefik Can Collections. Another part of this saloon includes the binded periodicals.

Library Hours: During the academic year, Monday-Friday: 08:30 - 17.00, Saturday 09:00-16:00. During the Summer Vacation, Monday-Friday: 08:30 - 17.00. The library is closed on national, religious, and official holidays.

Staff: Numbers of personel in library; 1 directory of library, for cataloging 4, in circulation desk 2 personels.

Services: Circulation this department is responsible for checkout and return transactions of library resources. Extending the loan period of library items, dealing with lost, damaged or overdue items, reminding patrons of return dates, reshelving returned items, etc...

Interlibrary Loan Upon request, Fatih University Library borrows books unavailable in its collections from libraries of other universities under the Interlibrary Loan on your behalf. As for articles, their photocopies are obtained from ULAKBİM...

Book Request Form:

Cataloging: The Cataloging Department is in charge of classifying, cataloging, and putting into service the newly arrived library materials in different formats in accordance with the adopted cataloging and classification rules. The current materials in the library have been classified according to the "Dewey Decimal Classification System" and cataloged according to the AACR2 (Anglo American Cataloging Rules2)...

Periodicals: Electronic Periodicals this department is in charge of subscribing to normal and trial electronic journals, and announcing them to patrons. Patrons may send any inquiries and requests concerning electronic journals to this department..

Thesis: There are 565 theses in the library. Printed theses are available in the cataloging office...

Photocopying: The photocopying service at the Circulation Desk is open to all patrons, and it allows xeroxing only the library resources. Photocopying a library item entirely is prohibited [32].

3.2 MODEL AND HYPOTHESIS

We will employ a model that is based on the relationships among the constructs. The model is based on the expectancy/disconfirmation paradigm, which provides the theoretical basis for the link between service quality and satisfaction, and which examines whether perceptions of service quality are directly related to the customer's satisfaction. When service quality is used to refer to specific information about the provided services, service quality is recognized as an antecedent of customer satisfaction. Therefore the proposed model hypothesis that there is a positive linear relationship between the critical factors of service quality and customer satisfaction. Many empirical studies supported this model for identifying the causal link between service quality and satisfaction [33].

3.3 METHODS AND PROCEDURES

This chapter explains the methods used in carrying out the study, giving special emphasis to techniques used to analyze data.

3.3.1 Instrumentation

The survey instrument is composed of questions relating to the following two constructs that include service quality and customer satisfaction.

The conceptual definition of construct was adopted from the work of Kohli and Jaworski due to its wide acceptance in the extant literature. They developed a multi-item scale to operationalize the construct in a service context. Minor modifications were, however, made to some items in the original scale to adjust for semantic meanings and also two items were deleted resulting in a 35-item scale that are measured on a seven-point Likert scale ranging from “strongly disagree” to “strongly agree”.

The selected sample groups were asked to complete the SERVQUAL instrument (Appendix A). The instrument is divided into 3 sections;

The first one asked about background information such as personal information, major subject area, faculties, as well as experience related to using library services.

The second one is 33 items and perceptions of actual service performance which each rating prioritized by 7 point- scale.

The third one is asked about customer satisfaction and evaluation importance.

3.3.2 Sample Groups

The samples in this study are the four groups of users of Fatih University Library. The participants are 201 faculty, staff, and undergraduate and graduate students.

Firstly, We have considered to select sample randomly then we recognized time wasn't enough to get so we selected convenient sample. For all samples, the complete survey was used. Surveys were given students in the library and the class.

The surveys have been given to the students in the library and in the classes, and they are desired to fill to the questionnaires and bring them back to the library. The questionnaires have been filled via interviewing by the applicants who were willing to fill them at the time they got the polls. The polls have been given and submitted to the academic administrative staff with the help of secretaries of faculties.

3.3.3 Sample Analyses

The 300 printed questionnaires were distributed to the 4 groups of sample users during April 7 – June 25, 2007. A total of 201 usable questionnaires were received.

The overall response rate was 67% that can be summarized in the Table 3.1

Table – 3.1: Returned by Each Respondent Groups

Respondent Groups	Delivered	Returned	%Returned
Student	200	143	71,5
Staff	50	33	66
Faculty	30	15	50
Graduate Student	20	10	50
Total	300	201	67

Of 201 respondents, more than a half are female (62,7%) (It is shown Table 3.2) and the majorities of the respondents are students: undergraduate 71 % and graduate students 6 % (It is shown Table 3.3).

Table 3.2: Sex of Respondents

Sex of Respondents	Frequency	Valid percent
Male	75	37,3
Female	126	62,7
Total	201	100

Table 3.3: Categories of Respondent Groups

Categories of Respondent Groups	Frequency	Valid Percent
Student	143	71
Staff	33	16
Faculty/Researcher	15	7
Graduate Students	10	6
Total	201	100

As most subject-based service provided by Fatih University cover arts and science area so most of respondents indicated their major subject areas as arts and science 37,3% (It is shown Table 3.4).

Table 3.4: Major Subject Areas

Major Subject Areas	Frequency	Valid Percent
Engineering	34	16,9
Economics and Administrative Sciences	28	13,9
Arts and Science	75	37,3
Vocational Schools	31	15,4
Others	33	16,4
Total	201	100

For the frequency of library use, over a half of samples have used the libraries frequently. There are 24,3 % fall into the category “ never or other ”(It is shown Table 3.5).

Table 3.5: All user for campus library

All users for Campus Library	Frequency	Valid Percent
Everyday	5	2,5
2 or more times a week	38	18,9
Once a week	32	15,9
Once every 2 weeks	20	10,0
Once a month	55	27,4
Never	21	10,4
Other	28	13,9
Total	201	100

Table 3.6: For All Students

For All students	Frequency	Valid
		Percent
Everyday	5	3,6
2 or more times a week	32	22,9
Once a week	22	15,7
Once every 2 weeks	13	9,3
Once a month	44	31,4
Never	8	5,7
Other	16	11,4
Total	140	100

Table 3.7: For All Staffs

For All staffs	Frequency	Valid
		Percent
Everyday	0	0,0
2 or more times a week	2	6,1
Once a week	4	12,1
Once every 2 weeks	3	9,1
Once a month	6	18,2
Never	11	33,3
Other	7	21,2
Total	33	100,0

Table 3.8: For All Faculty/Researchers

All Faculty/Researchers	Frequency	Valid Percent
Everyday	0	0,0
2 or more times a week	2	13,3
Once a week	6	40,0
Once every 2 weeks	4	26,7
Once a month	2	13,3
Never	1	6,7
Other	0	0,0
Total	15	100,0

Table 3.9: For All Graduate Students

For All Graduate Students	Frequency	Valid Percent
Everyday	0	0,0
2 or more times a week	2	20,0
Once a week	0	0
Once every 2 weeks	0	0
Once a month	3	30,0
Never	1	10,0
Other	4	40,0
Total	10	100,0

For frequency of use by individual user group, changing for each user group. The percentage of the most frequent use (everyday) is very high (It is shown Table 3.5 – Table 3.9). It is interesting that the percentage of user that use library never and other material in graduate student group (which most are young generation) is a half (50%) (It is shown Table 3.9). For faculty researcher group, it seems that they access remote service more often than other groups do (It is shown Table 3.8).

3.3.4 Number of Respondents Compared with Total Fatih University Library Users

To compare the number of respondents with total library users of Fatih University Library, the respondents are 3.23 % of the total users (staff, researcher, graduate and student). The highest proportion is graduate students group as there are only 10 students belong to Fatih university. For staff group, the data reflects 13.98% of all. For researchers and students groups, the data reflects 3,74 % and 2.59% respectively. (see Table 3.10)

Table 3.10:Number of Selected Respondents Compare with Total Fatih University Population

Type of Population	Population	Respondents	%
Students	5504	143	2,59
Faculties/ Researchers	401	15	3,74
Graduate Students	58	10	17,24
Staff	236	33	13,98
Total	6219	201	3,23

3.4 DATA ANALYSES

The data was transferred to Statistical Package for the Social Sciences (SPSS) Version 15.0 and do statistical analysis in order to accomplish the purposes of the study.

The data analysis was conducted in three steps:

1. Performing an exploratory factor analysis (EFA) with varimax rotation to determine the dimensions of service quality.
2. Evaluate the reliability and validity of each dimensions of service quality using Cronbach alpha.
3. Measuring the direct impact of each dimensions of service quality on the customer satisfaction using multiple regression analysis.

3.4.1 Factor Analyses

Due to potential conceptual and statistical overlap (Spearman correlation coefficients between the constituent items of service quality revealed a number of low to moderate inter-correlations) an attempt was made to produce parsimonious set of distinct non-overlapping variables from the full set of items underlying each construct.

Exploratory factor analysis with varimax rotation was performed on the service quality criteria in order to extract the dimensions of each construct.

The EFA using varimax rotation on a set of eleven items comprising process initially produced six factors. A content analysis was conducted to purify the uncovered factors since items measuring the same factor must have consistent substantive meanings. Thus items that have inconsistent substantive meanings with the factor or that have low factor loadings were removed from further analysis. This procedure has been widely applied in the EFA applications, recognizing that a blind EFA can produce factors that lack substantive meanings and are inappropriate for theory development. This purification process resulted in the elimination of two items. The remaining eighth items were again factor analyzed and produced six factors which make good conceptual sense and explained 71,839 percent of observed variance, as shown in Table 3.11.

Table 3.11: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	13,676	41,444	41,444	13,676	41,444	41,444	6,444	19,527	19,527
2	3,232	9,795	51,239	3,232	9,795	51,239	4,280	12,970	32,497
3	2,204	6,679	57,918	2,204	6,679	57,918	3,870	11,728	44,225
4	1,945	5,893	63,811	1,945	5,893	63,811	3,505	10,620	54,845
5	1,540	4,667	68,477	1,540	4,667	68,477	3,303	10,010	64,856
6	1,109	3,361	71,839	1,109	3,361	71,839	2,304	6,983	71,839
7	,944	2,860	74,699						
8	,825	2,500	77,199						
9	,718	2,175	79,373						
10	,620	1,878	81,252						
11	,570	1,728	82,980						
12	,555	1,681	84,661						
13	,513	1,553	86,214						
14	,502	1,522	87,736						
15	,432	1,310	89,046						
16	,398	1,205	90,252						
17	,362	1,097	91,348						
18	,348	1,055	92,403						
19	,308	,933	93,336						
20	,296	,897	94,232						
21	,233	,705	94,937						
22	,220	,667	95,604						
23	,204	,619	96,223						
24	,194	,587	96,811						
25	,180	,544	97,355						
26	,162	,490	97,845						
27	,142	,429	98,275						
28	,138	,417	98,692						
29	,109	,331	99,022						
30	,098	,298	99,320						
31	,085	,257	99,578						
32	,079	,239	99,816						
33	,061	,184	100,000						

KMO Value and sig. When KMO Value $\geq 50\%$ and $\text{sig.} \leq 0,05$ factor analyses can be done. According to KMO and Bartlett's Test (Table.3.12) ,KMO is in 89,4% and sig. is equal to zero.

Table 3.12: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,894
Bartlett's Test of Sphericity	Approx. Chi-Square	3219,143
	Df	528
	Sig.	,000

Secondly, looking Anti-image correlation matrix; If numbers, which there are above "a" , are less than 60%, factor analyses aren't acceptable. In our study there are no factor values less than 60%, it is shown in Table 3.13. Factor analyses are acceptable.

Table 3.13: Anti Image Correlation

ANTI IMAGE CORRELATION																																	
	f5.1	f5.2	f5.3	f5.4	f4.1	f4.2	f4.3	f4.4	f4.5	f6.1	f6.2	f6.3	f3.1	f3.2	f3.3	f5.5	f2.1	f2.2	f2.3	f2.4	f2.5	f2.6	f2.7	f1.1	f1.2	f1.3	f1.4	f1.5	f1.6	f1.7	f1.8	f1.9	f1.10
f5.1	.79 ^(*)	-0.2	-0.3	-0.3	0.1	-0.1	-0.2	0.2	-0.1	0.0	-0.2	0.1	-0.1	-0.1	0.2	0.0	-0.1	0.1	-0.2	0.2	-0.2	0.1	0.2	0.0	0.1	-0.1	-0.2	0.0	0.0	0.1	0.2	0.1	-0.2
f5.2	-0.2	.92 ^(*)	-0.1	0.0	-0.1	-0.1	0.1	0.0	0.0	0.0	0.0	0.1	-0.1	0.0	0.1	-0.1	0.1	-0.1	0.0	0.0	0.0	0.0	-0.1	0.1	0.1	-0.1	-0.1	0.0	0.0	-0.1	-0.2	0.2	0.0
f5.3	-0.3	-0.1	.89 ^(*)	-0.5	-0.1	0.0	0.1	-0.1	0.1	0.0	0.1	-0.1	0.0	0.0	0.0	-0.1	0.0	-0.1	0.0	-0.1	0.2	0.0	0.0	-0.1	0.1	0.1	0.1	0.0	0.0	0.1	-0.1	-0.1	0.1
f5.4	-0.3	0.0	-0.5	.87 ^(*)	0.2	-0.1	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.1	-0.2	-0.1	0.2	-0.1	0.1	-0.1	0.1	-0.2	0.0	0.2	-0.1	-0.1	0.1	-0.1	0.1	-0.1	0.0	-0.2	0.1
f4.1	0.1	-0.1	-0.1	0.2	.83 ^(*)	-0.3	-0.2	0.0	-0.4	-0.1	0.1	0.0	0.0	-0.1	0.2	0.1	-0.1	-0.1	0.1	-0.2	0.1	-0.1	0.2	0.1	0.2	-0.1	0.1	-0.3	0.3	-0.3	0.1	0.0	0.1
f4.2	-0.1	-0.1	0.0	-0.1	-0.3	.91 ^(*)	-0.2	-0.2	-0.1	0.1	0.1	-0.2	0.2	-0.1	0.0	-0.1	0.0	0.0	0.0	0.0	-0.1	0.0	0.1	-0.2	0.0	0.0	-0.2	0.2	0.0	0.1	0.0	-0.1	0.1
f4.3	-0.2	0.1	0.1	0.0	-0.2	-0.2	.93 ^(*)	-0.3	0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.1	0.2	0.0	0.0	-0.1	0.1	-0.1	-0.1
f4.4	0.2	0.0	-0.1	0.0	0.0	-0.2	-0.3	.86 ^(*)	-0.3	0.3	-0.3	0.0	-0.2	0.1	0.1	0.0	-0.2	0.1	-0.1	0.1	-0.1	0.0	0.0	0.2	-0.1	0.0	-0.1	0.1	-0.2	0.1	0.0	0.1	-0.1
f4.5	-0.1	0.0	0.1	0.0	-0.4	-0.1	0.1	-0.3	.91 ^(*)	-0.1	0.0	0.1	0.0	0.1	-0.2	0.0	0.1	-0.1	-0.1	0.1	0.1	0.1	-0.1	0.1	-0.1	0.0	0.1	0.0	-0.1	0.1	-0.1	0.0	0.0
f6.1	0.0	0.0	0.0	0.0	-0.1	0.1	-0.1	0.3	-0.1	.86 ^(*)	-0.5	-0.4	-0.1	-0.2	0.2	0.2	-0.2	0.2	0.0	-0.1	-0.1	0.1	-0.2	0.0	0.0	0.3	-0.2	0.1	-0.3	0.1	0.1	0.0	0.0
f6.2	-0.2	0.0	0.1	0.0	0.1	0.1	-0.1	-0.3	0.0	-0.5	.89 ^(*)	-0.3	0.2	0.2	-0.3	-0.1	0.1	-0.2	0.3	-0.1	0.1	-0.1	0.1	-0.1	0.0	-0.2	0.1	0.0	0.2	0.0	-0.2	0.1	-0.1
f6.3	0.1	0.1	-0.1	-0.1	0.0	-0.2	-0.1	0.0	0.1	-0.4	-0.3	.91 ^(*)	-0.1	0.1	-0.1	-0.4	0.0	0.0	-0.1	0.1	-0.1	0.3	-0.2	-0.1	0.1	-0.2	0.1	-0.2	0.2	-0.1	0.0	0.1	0.1
f3.1	-0.1	-0.1	0.0	0.0	0.0	0.2	-0.1	-0.2	0.0	-0.1	0.2	-0.1	.89 ^(*)	-0.5	-0.3	0.0	0.1	0.0	-0.1	0.1	-0.1	-0.1	-0.1	-0.1	0.1	0.0	-0.1	0.1	0.1	0.1	-0.1	0.0	0.2
f3.2	-0.1	0.0	0.0	0.1	-0.1	-0.1	-0.1	0.1	0.1	-0.2	0.2	0.1	-0.5	.86 ^(*)	-0.5	-0.1	0.2	-0.2	0.0	0.1	0.1	-0.1	0.1	0.0	0.0	-0.2	0.1	0.0	0.1	-0.1	-0.1	0.1	-0.2
f3.3	0.2	0.1	0.0	-0.2	0.2	0.0	0.0	0.1	-0.2	0.2	-0.3	-0.1	-0.3	-0.5	.86 ^(*)	0.1	-0.2	0.2	0.0	-0.2	0.0	0.1	0.0	0.0	0.1	0.2	0.0	-0.1	-0.1	-0.1	0.2	0.0	0.0
f5.5	0.0	-0.1	-0.1	-0.1	0.1	-0.1	0.0	0.0	0.0	0.2	-0.1	-0.4	0.0	-0.1	0.1	.93 ^(*)	-0.1	0.1	0.1	-0.1	-0.1	-0.2	0.0	0.2	-0.3	0.2	0.0	0.0	-0.1	0.0	0.0	-0.1	0.0
f2.1	-0.1	0.1	0.0	0.2	-0.1	0.0	0.1	-0.2	0.1	-0.2	0.1	0.0	0.1	0.2	-0.2	-0.1	.85 ^(*)	-0.5	0.0	0.2	-0.1	-0.2	0.0	-0.1	0.1	-0.3	-0.1	0.2	0.0	0.1	-0.1	0.1	0.0
f2.2	0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.1	-0.1	0.2	-0.2	0.0	0.0	-0.2	0.2	0.1	-0.5	.89 ^(*)	-0.3	-0.2	-0.2	0.0	0.0	0.1	0.0	0.1	0.0	0.0	-0.1	0.0	0.1	0.0	-0.1
f2.3	-0.2	0.0	0.0	0.1	0.1	0.0	0.0	-0.1	-0.1	0.0	0.3	-0.1	-0.1	0.0	0.0	0.1	0.0	-0.3	.87 ^(*)	-0.6	0.0	0.1	-0.1	-0.2	0.0	0.2	0.1	-0.1	0.0	0.0	-0.1	0.0	0.0
f2.4	0.2	0.0	-0.1	-0.1	-0.2	0.0	0.0	0.1	0.1	-0.1	-0.1	0.1	0.1	0.1	-0.2	-0.1	0.2	-0.2	-0.6	.89 ^(*)	-0.3	-0.1	0.0	0.0	-0.1	-0.1	-0.1	0.1	-0.1	0.3	0.0	0.0	-0.1
f2.5	-0.2	0.0	0.2	0.1	0.1	-0.1	0.0	-0.1	0.1	-0.1	0.1	-0.1	-0.1	0.1	0.0	-0.1	-0.1	-0.2	0.0	-0.3	.93 ^(*)	-0.2	-0.1	0.2	0.1	-0.1	0.0	0.1	-0.2	-0.1	0.0	0.1	
f2.6	0.1	0.0	0.0	-0.2	-0.1	0.0	0.0	0.0	0.1	0.1	-0.1	0.3	-0.1	-0.1	0.1	-0.2	-0.2	0.0	0.1	-0.1	-0.2	.91 ^(*)	-0.4	0.0	-0.1	0.1	-0.1	-0.1	0.1	0.0	0.1	0.0	0.0
f2.7	0.2	-0.1	0.0	0.0	0.2	0.1	0.0	0.0	-0.1	-0.2	0.1	-0.2	-0.1	0.1	0.0	0.0	0.0	0.0	-0.1	0.0	-0.1	-0.4	.94 ^(*)	0.0	-0.1	-0.1	0.1	-0.2	0.0	0.0	0.1	-0.2	-0.1
f1.1	0.0	0.1	-0.1	0.2	0.1	-0.2	-0.1	0.2	0.1	0.0	-0.1	-0.1	-0.1	0.0	0.0	0.2	-0.1	0.1	-0.2	0.0	0.2		0.0	.91 ^(*)	-0.4	-0.1	-0.1	-0.1	0.0	0.0	0.0	-0.1	0.0
f1.2	0.1	0.1	0.1	-0.1	0.2	0.0	0.0	-0.1	-0.3	0.0	0.0	0.1	0.1	0.0	0.1	-0.3	0.1	0.0	0.0	-0.1	0.1	-0.1	-0.1	-0.4	.90 ^(*)	-0.3	-0.1	0.0	0.1	-0.2	0.0	0.2	0.0
f1.3	-0.1	-0.1	0.1	-0.1	-0.1	0.0	0.1	0.0	0.0	0.3	-0.2	-0.2	0.0	-0.2	0.2	0.2	-0.3	0.1	0.2	-0.1	-0.1	0.1	-0.1	-0.1	-0.3	.91 ^(*)	0.1	-0.2	-0.2	0.0	0.1	-0.2	0.1
f1.4	-0.2	-0.1	0.1	0.1	0.1	-0.2	0.2	-0.1	0.1	-0.2	0.1	0.1	-0.1	0.1	0.0	0.0	-0.1	0.0	0.1	-0.1	0.0	-0.1	0.1	-0.1	-0.1	0.1	.93 ^(*)	-0.4	0.0	-0.2	0.0	-0.2	0.0
f1.5	0.0	0.0	0.0	-0.1	-0.3	0.2	0.0	0.1	0.0	0.1	0.0	-0.2	0.1	0.0	-0.1	0.0	0.2	0.0	-0.1	0.1	0.0	-0.1	-0.2	-0.1	0.0	-0.2	-0.4	.91 ^(*)	-0.4	0.1	-0.2	0.2	-0.2
f1.6	0.0	0.0	0.0	0.1	0.3	0.0	0.0	-0.2	-0.1	-0.3	0.2	0.2	0.1	0.1	-0.1	-0.1	0.0	0.0	-0.1	0.1	0.0	0.0	0.1	0.0	0.0	-0.4	.87 ^(*)	-0.5	0.0	-0.2	0.1	0.0	0.1
f1.7	0.1	-0.1	0.1	-0.1	-0.3	0.1	-0.1	0.1	0.1	0.1	0.0	-0.1	0.1	-0.1	-0.1	0.0	0.1	0.0	0.0	0.3	-0.2	0.0	0.0	0.0	-0.2	0.0	-0.2	0.1	-0.5	.87 ^(*)	-0.2	-0.1	0.0
f1.8	0.2	-0.2	-0.1	0.0	0.1	0.0	0.1	0.0	-0.1	0.1	-0.2	0.0	-0.1	-0.1	0.2	0.0	-0.1	0.1	-0.1	0.0	-0.1	0.1	0.1	0.0	0.0	0.1	0.0	-0.2	0.0	-0.2	.90 ^(*)	-0.4	-0.1
f1.9	0.1	0.2	-0.1	-0.2	0.0	-0.1	-0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.0	-0.1	0.1	0.0	0.0	0.0	0.0	0.0	-0.2	-0.1	0.2	-0.2	-0.2	0.2	-0.2	-0.1	-0.4	.91 ^(*)	-0.4
f1.10	-0.3	0.0	0.1	0.1	0.1	0.1	-0.1	-0.1	0.0	0.0	-0.1	0.1	0.2	-0.2	0.0	0.0	0.0	-0.1	0.0	-0.1	0.1	0.0	-0.1	0.0	0.1	0.0	-0.3	0.1	0.0	-0.1	-0.4	.92 ^(*)	

a Measures of Sampling Adequacy(MSA)

Table 3.14 Rotated Component Matrix

	Component					
	1	2	3	4	5	6
It is a good interface in access of electronic resources.	,839	,141	,115		,143	
It is easy to use	,811	,209	,155	,152		,194
It provides communication with staff	,800		,230		,166	
It meets my requirements about library.	,791	,239		,264		,110
The website of library has a good design	,740	,233	,111	,241		,156
It includes online request forms.	,729	,238		,145		-,122
The information gathered from e-library is clear and understandable	,682	,246			,314	,218
It provides access to my library membership information.	,679	,253		,213		,173
It provides reliable information about all materials	,615	,171	,194		,219	,300
Sufficient information is presented about library	,597	,222			,379	,336
Adequacy of lighting	,194	,798	,158	,171	,246	
Adequacy of heating	,162	,747	,147		,214	
Adequacy of air conditioning	,283	,745		,156	,278	,214
Sufficiency of number of desks and chairs	,269	,707	,203	,196		,214
Adequacy of noise isolation	,231	,697	,138		,209	
the order of book boards	,299	,601	,124	,312		,269
The signals are clear and beneficiary	,433	,495	,212	,113		,482
Politeness of staff	,131	,161	,891	,140	,175	
Staff is friendly		,188	,883	,169	,138	,119
ability to access to staff when needed	,172	,203	,851		,180	,168
the assistance of the staff in gathering information on reaching to the materials which is needed	,194	,214	,577	,155	,177	,509
The level of library to meet the needed books and periodical resources.	,101		,194	,782		

Continue Table 3.14						
	1	2	3	4	5	6
The level to meet CD- DVD resources	,173	,180		,680	,221	-,184
the level to meet need of studying	,347	,221		,511	,222	,423
User training	,170	,151		,118	,737	,216
the increase in quantity of resources	,145	,208		,396	,709	,147
Interlibrary cooperation and lending	,217	,245	,353		,683	
Reserve	,120	,263	,321	,118	,680	
In-library inquiry	,163		,446	,180	,505	,335
the assistance of the staff in obtaining resources that are needed.	,193	,156	,470	,256	,316	,615
the assistance of the staff in determination of resources those are required	,255	,154	,415	,201	,346	,600

Factors and factor loading were determined, using SPSS program. Components of the factors are shown in Table 3.14

Program computed six critical factors..Based on the item loadings, these factors were labeled as *e-library*, *tangible*, *courtesy of employoes*, *access*, *sufficiency*, and *helping*.This factors was shown in Figure 3.2.

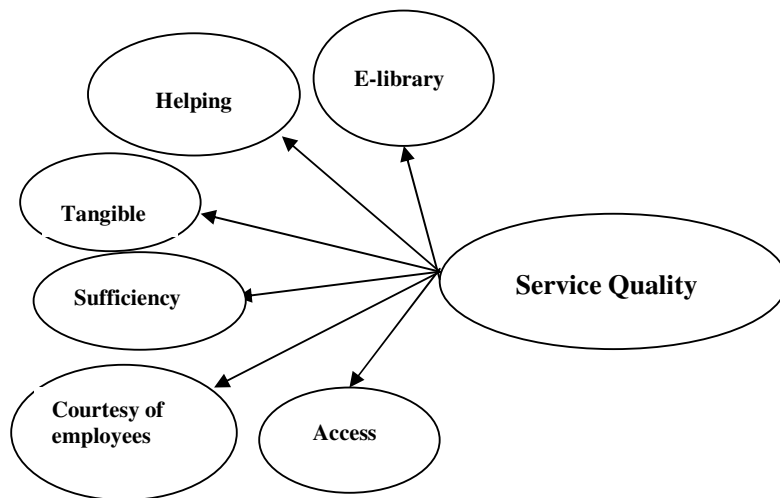


Figure 3.2 Critical Factors of Service Quality

Factor 1: E-Library,

Factor 2: Tangible,

Factor 3: Courtesy of Emplooyes,

Factor 4: Access,

Factor 5: Sufficiency,

Factor 6: Helping.

Instrument which is the modified for the university library by the author was compared with the originally servqual instrument for the library. In table 3.15 it is shown.

Table 3.15: Factors for The New Instrument and Servqual

Variable	Variable Label	New Instrument	Servqual
Q1	The information gathered from e-library is clear and understandable	e-library	*
Q2	The website of library has a good design	e-library	*
Q3	It is easy to use	e-library	*
Q4	It is a good interface in access of electronic resources.	e-library	*
Q5	It provides communication with staff	e-library	*
Q6	It includes online request forms.	e-library	*
Q7	It meets my requirements about library.	e-library	*
Q8	It provides access to my library membership information.	e-library	*
Q9	Adequacy of noise isolation	Tangible	Tangible
Q10	Adequacy of lighting	Tangible	Tangible
Q11	Adequacy of heating	Tangible	Tangible
Q12	Adequacy of air conditioning	Tangible	Tangible
Q13	Sufficiency of number of desks and chairs	Tangible	Tangible
Q14	the order of book boards	Tangible	Tangible
Q15	The signals are clear and beneficiary	Tangible	Tangible
Q16	Staff is friendly	Courtesy of Employees	Assurance
Q17	Politeness of staff	Courtesy of Employees	Assurance
Q18	ability to access to staff when needed	Courtesy of Employees	Assurance
Q19	Reserve	Access	Empathy
Q20	the increase in quantity of resources	Access	Empathy
Q21	In-library inquiry	Access	Empathy
Q22	User training	Access	Empathy
Q23	Interlibrary cooperation and lending	Access	Empathy
Q24	The level of library to meet the needed books and periodical resources.	Sufficiency	Assurance
Q25	The level to meet CD- DVD resources	Sufficiency	Assurance
Q26	The level to meet reference sources (dictionary, encyclopaedia, dissertation)	Sufficiency	Assurance
Q27	The level to meet Reserved resources	Sufficiency	Assurance
Q28	the level to meet need of studying	Sufficiency	Assurance
Q29	the assistance of the staff in gathering information on reaching to the information which is needed	Helping	Responsiveness
Q30	the assistance of the staff in determination of resources those are required	Helping	Responsiveness
Q31	the assistance of the staff in obtaining resources that are needed.	Helping	Responsiveness

3.4.2 Reliability Analyses

An internal reliability test showed strong Cronbach alphas (It is shown in Table 3.16) for the purified multi-item factors ranging from 0.824 to 0.826 with all values being well over 0.70, suggesting satisfactory level of construct reliability.

Table 3.16: Reliability Statistics

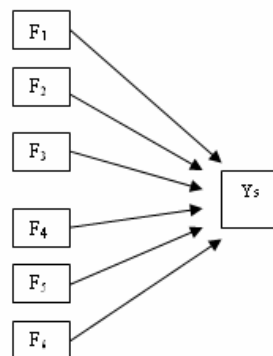
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,826	,824	6

3.4.3 Regression Analyses

As mentioned above, it is assumed that there is a positive linear relationship between these critical factors of service quality and customer satisfaction. In order to test these hypotheses a linear model is constituted and a regression analysis is performed using “Ordinary Least Squares Estimates” technique. In the model written below, dependent variable (Y_s) is customer satisfaction, independent variables are determined critical factors of service quality e-library (F_1), tangible (F_2), courtesy of employees (F_3), access (F_4), sufficiency (F_5) and, helping (F_6).

$$Y_s = \beta_1 F_1 + \beta_2 F_2 + \beta_3 F_3 + \beta_4 F_4 + \beta_5 F_5 + \beta_6 F_6$$

Figure 3.3 Model of study



In the study, stepwise method was used. In addition that linear regression was tested for each critical factor and it was completed within four step. Last step show linear model of the study.

Model–1 Predictors: F5 (Sufficiency),

$$Y_{S_1} = \beta_5 F_5$$

$$Y_{S_1} = 0,954 F_5$$

Model–2 Predictors: F5 (Sufficiency), F3 (Courtesy of employees),

$$Y_{S_2} = \beta_5 F_5 + \beta_3 F_3$$

$$Y_{S_2} = 0,535 F_5 + 0,437 F_3$$

Model–3 Predictors: F5 (Sufficiency), F3 (Courtesy of employees), F4 (Access),

$$Y_{S_3} = \beta_5 F_5 + \beta_3 F_3 + \beta_4 F_4$$

$$Y_{S_3} = 0,466 F_5 + 0,350 F_3 + 0,160 F_4$$

Model–4 Predictors: F5 (Sufficiency), F3 (Courtesy of employees), F4 (Access), F6 (Helping)

$$Y_{S_4} = \beta_5 F_5 + \beta_3 F_3 + \beta_4 F_4 + \beta_6 F_6$$

$$Y_{S_4} = 0,506 F_5 + 0,436 F_3 + 0,220 F_4 + 0,188 F_6$$

And Dependent Variable: Customer satisfaction,

$$\beta_5 = 0,506 \quad , \quad \beta_3 = 0,436 \quad , \quad \beta_4 = 0,220 \quad , \quad \beta_6 = 0,188$$

Beta values show the relationship between independent variables and dependent variable.

$$\beta_5 \geq \beta_3 \geq \beta_4 \geq \beta_6$$

Beta value of the Factor 5 is greater than the other beta values. That means relationship between customer satisfaction and sufficiency factor is stronger than the other factors.

The next step is assessing the significance of the model using ANOVA (F) Test that shows the combined effects of all the independent variables in the regression model (ANOVA Test is shown in Table 3.17). In order to consider the model to be significant, the general acceptance is that the significance level should be equal or less than %5 ($\alpha \leq 0.05$).

Table 3.17: ANOVA TEST

Mode l		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	4440,142	1	4440,142	2012,03 8	,000
	Residual	441,358	200	2,207		
	Total	4881,50	201			
2	Regression	4518,242	2	2259,121	1237,59 0	,000
	Residual	363,258	199	1,825		
	Total	4881,500	201			
3	Regression	4526,286	3	1508,762	841,001	,000
	Residual	355,214	198	1,794		
	Total	4881,500	201			
4	Regression	4533,253	4	1133,313	641,104	,000
	Residual	348,247	197	1,768		
	Total	4881,500	201			

Table 3.18: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta	B	Std. Error
1	F5	,994	,022	,954	44,856	,000
2	F5	,558	,070	,535	8,009	,000
	F3	,379	,058	,437	6,541	,000
3	F5	,486	,077	,466	6,316	,000
	F3	,303	,068	,350	4,490	,000
	F4	,167	,079	,160	2,118	,035
4	F5	,527	,079	,506	6,661	,000
	F3	,378	,077	,436	4,915	,000
	F4	,231	,085	,220	2,726	,007
	F6	,177	,089	,188	1,985	,049

Table 3.19: Excluded Variables

Model		Beta In	T	Sig.	Partial Correlation	Collinearity Statistics
		Tolerance	Tolerance	Tolerance	Tolerance	Tolerance
1	F1	,261	3,502	,001	,241	,077
	F2	,309	4,182	,000	,284	,076
	F3	,437	6,541	,000	,421	,084
	F4	,338	5,041	,000	,337	,090
	F6	,235	3,215	,002	,222	,081
	2	F1	,096	1,271	,205	,090
F2		,104	1,280	,202	,091	,057
F4		,160	2,118	,035	,149	,065
F6		,090	1,013	,313	,072	,047
3	F1	,056	,710	,479	,050	,060
	F2	,050	,585	,559	,042	,050
	F6	,188	1,985	,049	,140	,040
4	F1	,070	,899	,370	,064	,060
	F2	,058	,676	,500	,048	,050

We checked hypotheses, Were they acceptance or rejected? by using coefficients and excluded variables tables (Table 3.18 and Table 3.19). To get ideal result program computed four program. Best results are in four model. According to it, predictors in the model:F5,F3,F4,F6. Excluded variables F1,F2.If Sig. $\leq 0,05$, hypothesis is acceptance, otherwise hypothesis is rejection.

H₁:There is a positive linear relationship between the e-library factor and customer satisfaction,

For F1, Sig. is 0,370 and it is $\geq 0,05$, so hypothesis (H₁) is **rejection**.(See model–4, in Table 3.19,)

H₂: There is a positive linear relationship between the tangible factor and customer satisfaction,

For F2, Sig. is 0,500 and it is $\geq 0,05$, so hypothesis (H₂) is **rejection**.(See model–4, in Table 3.19)

H₃: There is a positive linear relationship between the courtesy of employees factor and customer satisfaction,

For F₃, Sig. is 0,00 and it is $\leq 0,05$, so hypothesis (H₃) is **acceptance**.(See Table 3.18)

H₄: There is a positive linear relationship between the access factor and customer satisfaction,

For F₄, Sig. is 0,024 and it is $\leq 0,05$, so hypothesis (H₄) is **acceptance**.(See Table 3.18)

H₅: There is a positive linear relationship between the sufficiency factor and customer satisfaction,

For F₅, Sig. is 0,000 and it is $\leq 0,05$, so hypothesis (H₅) is **acceptance**.(See Table 3.18)

H₆: There is a positive linear relationship between the helping factor and customer satisfaction,

For F₆, Sig. is 0,041 and it is $\leq 0,05$, so hypothesis (H₆) is **acceptance**.(See table 3.18).

According to factor and regression analyses model for Fatih University Library is shown Figure 3.4.

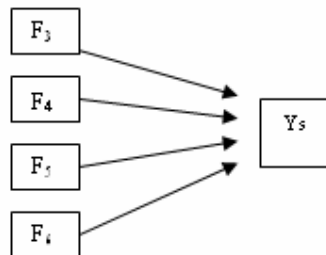


Figure 3.4: Model for Fatih University Library

Furthermore, the adjusted R^2 (coefficient of multiple determination) is 0.929 which means almost 93% of dependent variable –customer satisfaction- can be explained by independent variables. The left over 7% is estimated as the elements like the subjective evaluations that are not included in the model.

Table 3.20: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,954	,910	,909	1,48553
2	,962	,926	,925	1,35108
3	,963	,927	,926	1,33941
4	,964	,929	,927	1,32957

This total sum of squares is not corrected for the constant because the constant is zero for regression through the origin. . For regression through the origin (the no-intercept model), R Square measures the proportion of the variability in the dependent variable about the origin explained by regression. This CANNOT be compared to R Square(is shown in Table 3.20) for models which include an intercept.

3.5 Discussions and Managerial Implications

3.5.1 Discussion

Among the factors, courtesy of employee and sufficiency was found to be the most important criterion with the value of its standardized regression weight followed by access and helping. In contrast, e-library and tangible factors don't have impact on customer satisfaction satisfaction in Fatih University Library.

Rejection Causes for F1(E-Library)

The reasons underlying the facts those the regression findings of e-library as a factor is quite lower than expected and its sigma is higher than 5%.

In order to determine the regarding issues, the conditions of library users are inspected. It is found that; in the university, the use of e-library (is shown in Table 3.21) is quite low, such that; 44,3% of applicants of poll has not used e-library and 13,9% of applicants are using it less than once a month. Depending upon the fact that e-library is not used widely, it is not evaluated as a significant criterion for service quality of library.

When we look at the major reasons of not using e-library sources (is shown in Table 3.22) we see that not knowing how to use these sources and the intensity to use published resources are the major reasons. These two reasons has weakened the e-library as a significant factor affecting satisfaction in service quality from applicants' aspects.

Table 3.21: All User for E-library

All users for e-library	Frequency	Valid Percent
Everyday	7	3,5
2 or more times a week	13	6,5
Once a week	11	5,5
Once every 2 weeks	17	8,5
Once a month	36	17,9
Never	89	44,3
Other	28	13,9
Total	201	100,0

Table 3.22: The Reasons Underlying not to Use E-library

	Do not know how to use	Prefers using published sources	Thinks that he/she does not need for lectures	Does not know that the information he/she needs is in e-library	Other
Do not know how to use	68	9	2	12	1
Prefers using published sources	9	55	3	2	1
Thinks that he/she does not need for lectures	2	3	9	13	1
Does not know that the information he/she needs is in e-library	5	2	3	24	1
Other	1	1	1	1	12

Rejection Causes for F 2 (Tangible)

In the Fatih University study, we saw that tangibility, which is used as a factor in the formation of the model and the servqual scale, is not perceived as the service quality criterion that affects customer satisfaction. While examining this issue, we looked at variables that form tangible as a factor and how these variables are evaluated in customers' eyes. Results of Tangible is shown in Table 3.23.

Results of the survey present us some facts. These are: the service quality related to tangibility is high, the users are not aware of such benefits in the library, and so; they do not think tangibility as a factor to be evaluated in satisfaction. In this survey, we made such an approach that, the applicants that assign 5 or more grades over 7 to the variables that form tangibility are satisfied.

Table 3.23:Result of Tangible

Tangible	Number of ≥ 5	Total	Ferquency %
Lighting	138	201	69
Noise	99	201	49
Heating	143	201	71
Air Conditioning	124	201	62
Number of desks	108	201	54
Book boards	130	201	65
Signallers	112	201	56
General	105	201	52

3.5.2 Managerial Implication

After reviewing the result, the recommendations will be presented for improvement of good service quality.

1. The service attributes that library should allocate resources to improve for good service quality. Regression analysis shown that most problems are related to insufficient library collection, and service mind.
2. Library instruction or training session. Though the data reveals that the attribute “ Instruction in use and/or training sessions, when needed ” is ranked very low from user desired expectations. Important reason for non-using e-library, unknow using it.
3. Staff, The data calculated from analyses, most important second factor is courtesy of employee. Library staffs pay attention.
4. Web-site, The library should have own web-site to reach publication and staff. In Fatih University, e-library means e-catolog and electronic publication.

3.6 Limitations of The Study

Empirical survey based studies are seldom independent of limitations. First, the sample size of 201 posed estimating problems with regard to degrees of freedom in the operationalization of customer satisfaction and testing the composite model. This necessitated the use of summated scales for each of the components of customer satisfaction in terms of a single item, the average score. Dependent variable such as overall evaluation of the critical factors of the service quality was measured using a single item scale. Although the use of single item scales are not uncommon, they often times do not do justice to the complexity and richness of a construct.

Despite the above limitations we believe that this study fills a gap in the literature. This is especially true in service sector. To have a sustainable customer satisfaction in university library becomes a key determinant of success of service quality instrument.

There were some limitations of the study. They affected study negatively.

- Sample was convenient sample.
- The subjects in this study include 143 students, 33 staffs,15 faculties/researchers, 10 graduate students, The findings cannot be generalized beyond Fatih University.
- Applying study only one university library (Fatih University Library)

3.7 Future Studies

The results can be used for future study related to library service quality at Fatih University Library.

- To select sample randomly,
- More than users should be in the sample
- To enlarge sample groups, survey can poll other universities (General of Istanbul or Turkey),
- To give education about using e-library (Electronic library)
- Other estimation methods, such as neural networks, stochastic frontier analysis can provide additional insights in the future.
- The open-ended questions on the questionnaire form and the complaints written on these forms created an opportunity to share information about the potential problems and searching for ways to solve them.
- Instead of static environment this analysis can be repeated in a dynamic environment to get more insights. Cross sections data set (in static environment) dynamic environment panel data set.
- This study can be extended, usability and performance of the library.
- This study can be applied in public university libraries and user profile can be evaluated and compared with user of private university libraries.
- The evaluation of current service quality was carried out according to the service recipients' perception. It will be very valuable to add physicians' perception of service quality when designing and improving the university library system.

CHAPTER 4

CONCLUSIONS

University libraries play a critical role in the teaching, research, and learning activities. At the university, the library has been seen as an instrument of teaching alongside lecture and discussion methods and the librarian serves as a teacher, guiding the student in the ways of investigation and research. The library is an instrument of education contributing to the intellectual development of the student.

Service quality and customer satisfaction are important concepts to academic research. Traditionally, the quality of a university library has been described in terms of its collection and measured by the size of the library's holding and various counts of its use.

This thesis is about measuring service quality of university libraries and especially aims to provide an instrument of service quality is based on customer satisfaction.

This research also presents a case study, with an application in a university library, for the development of new instrument to more effectively measure service quality that is based on customer satisfaction. For academic researches, this study provided insights into the University library, and gave important details service quality literature.

In this research, we used survey to collect data about "Service quality of University Libraries".

Firstly, we determined critical factors measuring service quality of the library according to servqual instrument. SERVQUAL is a survey instrument, to measure the quality of service by five dimensions: tangibles, reliability, responsiveness, assurance, and empathy.

The purpose of this study is to provide an instrument that measure service quality within libraries and service quality should be related to user satisfaction. New instrument is a modified of SERVQUAL instrument for Library.

We made interview with directory of Fatih University Library. Due to the interviews, we adapted the questionnaire according to Fatih University Library users and staffs.

Then, we gave the questionnaire one who conducts surveys to apply sample groups consists students, staffs, graduate students, faculty researchers. The 300 printed questionnaires were distributed to the 4 groups of sample users during two month. A total of 201 usable questionnaires were received. The overall response rate was 67%.

The data was transferred to SPSS Version 15.0 and do statistical analysis in order to accomplish the purposes of the study. The survey instrument exhibite a satisfactory level of internal reliability. A model that is based on the relationships among the constructs was employed. According to the model we had six hypotheses. We determined critical factors of service quality by factor analyses, KMO and Bartlett's test weas applied. The result from factor analysis method shows the dimensions that determine the customers' evaluation of service quality are; Sufficiency, and Couertesy of employeer, Access, Helping. Hypothesises were "There are positive relationship between each of these critical factors and customer satisfaction". According to ANOVA test, hypothesises is acceptance 4 critical factors which are helping, access, sufficiency and courtesy of employees.

For Fatih University Library, there are four critical factors that based on customer satisfaction. The result from regression analysis reveal that staff complete collection play major role on service quality because of high loading on entire factors. Among the factors, courtesy of employeer and sufficiency was found to be the most important criterion with the value of its standardized regression weight followed by access and helping. In contrast, e-library and tangible have comparatively less impact on customer satisfaction.


Then, the applicable and non-applicable features for library users were determined. The results support the existing information related to library for the library managers.

This finding reveals which are the important items in each factors. It seem that users concern complete collection, and staff attitude.

My findings can help the library staff that can understand user expectation according to results of evaluation customer satisfaction and service quality. Findings of the study also suggest researcher about service quality to understand it better and its linkage to customer satisfaction.

APPENDIX A

SERVQUAL SURVEY INSTRUMENT

	Fatih Üniversitesi
	<p>Sevgili Fatih Üniversitesi Kütüphane Kullanıcısı ,</p> <p>Fatih Üniversitesi Fen Bilimler Enstitüsü'nde Yüksek Lisans tezi olarak yürütülen bu proje; Fatih Üniversitesi Kütüphanesi'nde kullanıcıların algıladıkları hizmet kalitesini ve Müşteri memnuniyetini ölçmeyi amaçlamaktadır. Bu araştırmamıza katılmanızı rica ediyoruz.</p> <p>Araştırmamız esas olarak kullanıcıların ideal bir kütüphaneden beklentilerini ortaya çıkarmayı hedeflemektedir. Aynı zamanda kullanıcıların Fatih Üniversitesi Kütüphanesinin hizmetleri hakkındaki görüşlerine başvurulacaktır.</p> <p>Ağırlıklı olarak çoktan seçmeli sorulardan oluşan anket formunu doldurmanız 15 dakikayı geçmeyecektir.</p> <p>Anketten elde edilen bilgiler özenle muhafaza edilecek ve sonuçlar toplu olarak istatistiksel analizlere tabi tutulacaktır. Cevaplarınız kesinlikle gizli kalacaktır ve ilerideki kütüphane ziyaretlerinizi etkilemeyecektir.</p> <p>Araştırmaya göstereceğiniz işbirliği ve katılımdan dolayı şimdiden çok teşekkür ediyoruz.</p> <p>Saygılarımızla,</p> <p>Nurcan KILIÇ</p> <p>Doç. Dr. Selim ZAİM</p>

FATİH ÜNİVERSİTESİ KÜTÜPHANESİ ANKETİ

Cinsiyetiniz:

Bay Bayan

Aşağıdakilerden hangisi sizi tanımlıyor?

- F.Ü. Ön Lisans öğrencisi F.Ü. Doktora öğrencisi
 F.Ü. Lisans öğrencisi Öğretim Elemanı
 F.Ü. Yüksek Lisans öğrencisi İdari Personel
 Diğer (Lütfen belirtiniz) _____

Lütfen, Fakülte ve Bölümünüzü/Biriminizi yazınız:

Lütfen, öğrenci iseniz Öğrenim durumunuzu işaretleyiniz

Burslu Burssuz

Lütfen ,2006-2007 eğitim yılında kütüphaneyi kaç kez kullandığınızı işaretleyiniz.

- Her gün
 Haftada bir kaç kere
 Haftada bir kere
 İki haftada bir kere
 Ayda bir kere
 Hiç
 Diğer (lütfen belirtiniz) _____

Yukarıdaki soruya 'hiç' cevabını verdiyseniz, lütfen nedenini belirtiniz.

- Bilgi ihtiyacımı farklı Kütüphaneden karşılıyorum
 Bilgi ihtiyacımı kendi kaynaklarımdan karşılıyorum
 Kütüphanenin fiziki özellikleri yetersiz
 Bilgi ihtiyacımı internetten karşılıyorum
 Diğer _____

ACIKLAMA

İDEAL KÜTÜPHANE:

Bir kütüphane kullanıcısı olarak, kaliteli hizmet sunan ideal bir kütüphaneyi zihninizde canlandırın. Bu ideal kütüphaneyi aşağıda verilen her bir madde için 1'den 7'ye derecelendirin. Bu derecelendirmede **1 "kesinlikle katılıyorum", 7 "kesinlikle katılmıyorum"** anlamındadır.

FATİH ÜNİVERSİTESİ KÜTÜPHANESİ:

İkinci kolonda aynı maddeleri Fatih Üniversitesi Kütüphanesi tarafından sunulan hizmetler açısından değerlendirin. Fatih Üniversitesi Kütüphanesi'ni aşağıda verilen her bir madde için 1'den 7'ye derecelendirin. Bu derecelendirmede **1 "kesinlikle katılmıyorum", 7 "kesinlikle katılıyorum"** anlamındadır. Bu ankette doğru ya da yanlış cevap yoktur. Mükemmel kütüphane hizmeti için bireysel görüşünüzü doğru şekilde yansıtan sayıyı işaretlemeniz bizim için önemlidir.

I. BÖLÜM (Sunulan Hizmetin Kalitesi)
A. (Fatih Üniversitesi Merkez Kütüphanesi)

	İdeal Kütüphane							Fatih Kütüphanesi						
	Kesinlikle Katılmıyorum							Kesinlikle Katılıyorum			Kesinlikle Katılmıyorum			
1. Kütüphanenin aşağıdaki kaynakları karşılama düzeyi														
1.A) Bilgi kaynakları														
- Kitap,Dergi,CD	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- DVD, VCD	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Kaset (Video, ses)	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Başvuru eserleri (sözlük, ansiklopedi, tez vb...)	1	2	3	4	5	6	7	1	2	3	4	5	6	7
-Ayrılmış kaynaklar (Ders kitapları vb...)	1	2	3	4	5	6	7	1	2	3	4	5	6	7
1.B) Ekipmanlar														
- Bilgisayar	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Kablosuz İnternet ağı	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- DVD player	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Video	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Kaset çalar	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Fotokopi	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Mikروفilm cihazı	1	2	3	4	5	6	7	1	2	3	4	5	6	7
2. Kütüphanenin mekân gereksinimini karşılama düzeyi:														
- Okuma salonu	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- DVD/ VCD odası	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Takım çalışma odası	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- 24 saat çalışma salonu	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Kafeterya, seminer ve sergi salonu	1	2	3	4	5	6	7	1	2	3	4	5	6	7
3. Kütüphanenin aşağıdaki hizmetleri karşılama düzeyi:														
- Ödünç alma verme	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Rezerve	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Kaynakların çoğaltılması	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Kütüphane içi danışma	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Kullanıcı eğitimi	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Kütüphaneler arası işbirliği ödünç alıp verme (Bu soru yalnızca akademisyenler içindir)	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4. Kütüphane çalışanlarının yardımı:														
- Aradığım bilgiyi nasıl bulacağımı öğrenmede	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- İhtiyaç olan kaynakları belirlemede	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- İhtiyacım olan kaynakları elde etmede	1	2	3	4	5	6	7	1	2	3	4	5	6	7
5. Kütüphane çalışanları:														
- Güler yüzlü ve sıcakkanlıdır	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Kibardır	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Yardım gerektiğinde ulaşılabilir	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Kütüphanede çalışan sayısı yeterlidir	1	2	3	4	5	6	7	1	2	3	4	5	6	7
6. Kütüphane materyalleri:														
6. A) Bilgi kaynakları														
- Kütüphanede nerede olduğu kolay bulunabilir	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Rafta doğru yerindedir	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Düzenli olarak raflarına geri yerleştirilir	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Ders/araştırma ihtiyacımı karşılar	1	2	3	4	5	6	7	1	2	3	4	5	6	7

6. B) Fiziki şartların uygunluğu:	İdeal Kütüphane							Fatih Kütüphanesi						
	Kesinlikle Katılmıyorum							Kesinlikle Katılıyorum						
- Ses yalıtımı	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Aydınlatma	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Isıtma ve havalandırma	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Masa, sandalye sayısı ve düzeni	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Kitap dolaplarının mekansal düzeni	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- İşaret levhaları anlaşılır ve faydalıdır	1	2	3	4	5	6	7	1	2	3	4	5	6	7

I. BÖLÜM (Sunulan Hizmetin Kalitesi) B.(E-KAYNAKLAR)

1. 2006-2007 eğitim döneminde kütüphane kaynaklarına elektronik ortamda hangi sıklıkla ulaştınız?

- Her gün
 Haftada bir kaç kere
 Haftada bir kere
 İki haftada bir kere
 Ayda bir kere
 Diğer (Lütfen belirtiniz)
 Hiç

2. Elektronik kütüphane katalogu:	İdeal Kütüphane							Fatih Kütüphane						
	Kesinlikle Katılmıyorum							Kesinlikle Katılıyorum						
- Kolay kullanılabilir	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Tüm kütüphane materyalleri hakkında güvenilir bilgi sağlar	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Hakkında yeterli eğitim verilmektedir	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Üzerinden erişilen bilgi açık ve anlaşılırdır	1	2	3	4	5	6	7	1	2	3	4	5	6	7
3. Kütüphane web sitesi:														
- Başarılı bir tasarıma sahiptir	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Kolay kullanılabilir	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Elektronik kaynaklara erişimde başarılı bir ara yüzdür	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Kütüphane çalışanları ile iletişimi sağlar	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Online istek formları içerir	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Kütüphaneye ilişkin bilgi gereksinimimi karşılar	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Kütüphane üyelik bilgilerime erişimimi sağlar	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4. Kütüphane tarafından sağlanan e-kaynaklardan yaralanıyor musunuz														
<input type="checkbox"/> Evet (Yalnız 5. soruyu yanıtlayın)														
<input type="checkbox"/> Hayır (Yalnız 6. soruyu yanıtlayın)														
5. E-Kaynaklar (E-dergi, e-ansiklopedi, e-kitap ve veritabanları) :														
- kullanımı için yeterli eğitim verilmektedir	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- ders/araştırma gereksinimini karşılamaktadır	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- ile tarama yapmak kolaydır	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- arasında konu ile ilgili olanları seçilebiliyor	1	2	3	4	5	6	7	1	2	3	4	5	6	7
6. Çünkü: (Bir ya da daha fazla seçeneği işaretleyebilirsiniz) :														
<input type="checkbox"/> Kullanımını bilmiyorum								<input type="checkbox"/> Ders/araştırmak için gerekli görmüyorum						
<input type="checkbox"/> Basılı kaynakları kullanmayı tercih ediliyorum								<input type="checkbox"/> Kütüphanede var oldukları bilmiyorum						
<input type="checkbox"/> Diğer (Lütfen açıklayınız)														

II. BÖLÜM (Sunulan Hizmetlerin Önem Dereceleri)

Kütüphaneler ve verdikleri hizmetlerle ilgili altı özellik aşağıda yer almaktadır. Bu özelliklerinin her birinin kütüphanenin hizmet kalitesi değerlendirirken, sizin için ne kadar önemli olduğunu değerlendirmek istiyoruz. Lütfen, toplam 100 puanı bu altı özellik için önem derecesine göre dağıtın. Özellik sizin için ne kadar önemliyse vereceğiniz puan o kadar yüksek olmalı. Lütfen, puanlarınızı verirken toplamın yüze (100) eşit olmasına dikkat edin.

- | | |
|--|-------------|
| 1. Kütüphanenin fiziksel özellikleri, ekipmanları ve iletişim materyallerinin görünümü |puan |
| 2. Kütüphanenin vaat ettiği hizmetleri gerçekleştirmedeki kararlılığı ve güvenilirliği |puan |
| 3. Kütüphanenin okuyucularına yardım etmedeki kararlılığı ve güvenilirliği |puan |
| 4. Kütüphane personelinin bilgisi nezaketi, inandırıcılık ve güven verme özelliği |puan |
| 5. Kütüphanenin okuyucularına sağladığı özenli ve bireysel ilgi |puan |
| 6. Kütüphanenin ekipmanlarının, iletişim materyallerinin kullanılabilirliği | +puan |

TOPLAM PUAN

100

7. Yukarıdaki özelliklerden sizin için en **önemlisi** hangisidir ? (Seçeneği belirtiniz)'ci seçenek
8. Yukarıdaki özelliklerden sizin için en **önemsizi** hangisidir? (Seçeneği belirtiniz)'ci seçenek
9. Verilen hizmeti değerlendirirken, yukarıda belirtilenlerin dışında sizin için önemli olan başka bir özellik var mı?
Evet, ise lütfen belirtin:

III. BÖLÜM (Kütüphaneyi Kullananların Memnuniyeti Derecesi)

		Fatih Kütüphanesi						
		Hiç	Memnun değilim				Çok	
		Memnun					Memnunun	
1. Kütüphanenin aşağıdaki hizmetlerinden memnuniyetiniz								
- Kütüphane çalışanlarının		1	2	3	4	5	6	7
- Kütüphane malzeme ve ekipmanlarının		1	2	3	4	5	6	7
- Kütüphane web sitesinin		1	2	3	4	5	6	7
- Kütüphane katalogunun		1	2	3	4	5	6	7
- Kütüphanenin bulunduğu yerin		1	2	3	4	5	6	7
- Kütüphanenin genelinden		1	2	3	4	5	6	7
2. Kütüphanenin hizmet kalitesi performansını değerlendirir misiniz?		1	2	3	4	5	6	7
		Fatih Kütüphanesi						
		Kesinlikle	Tavsiye Etmem				Kesinlikle	
		Tavsiye					Tavsiye	
		Ederim					Ederim	
3. Kütüphanenin tavsiye edilebilirliği								
- Fatih Üniversitesi Kütüphanesinin başkalarına tavsiye edilebilirliği sizce nadir		1	2	3	4	5	6	7

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