Comparison of Quality of Service of Distance Education at Universities

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ABSTRACT

The difference between the distance education and the formal education system is to provide different requirements, expectations and environments the provision of training opportunities   to people. In this way, there is a huge population that has an opportunity to get distance education. Increase of service sector firms and gain more profit by providing service to their customers have made the concept of quality of service more crucial today. This study seeks to compare the service quality between the universities.

Keywords: *Distance education, service quality, Servqual.*

INTRODUCTION

While on the one hand developments and changes as the result of globalization have significant impacts on people's lives, needs and desires; on the other hand they influence the understanding and form of how these needs are met. Educational service is one of service fields at the most critical point of the service sector. Because, people who will work in their professional fields in the future are trained through education. In this respect, improving the quality of service of higher education at universities serves to the purpose of integrating people to society as individuals providing the highest benefit in the fields that they are trained for.

In the twenty-first century, with the explosion of information, it has been seen that the need for education of all communities has increased. The need for education has provided the development of new educational technologies and new methods of education and training, and these ultimately developed new technologies and different methods combined and gradually changed the education. Traditional educational institutions are not able to meet increasing demand for education. Emerging education gap is increasing every day. This requirement has pushed societies to search for alternatives to the traditional education, and the "distance education" concept has emerged. The most important reasons for this change in education are the increasing number of students, education demand of different masses of students, former students, and people's attempts to meet the educational needs because of that business and working have lead to life-long learning.

The concept of service is defined by Grönroos "an activity or series of activities which are more or less abstract and provide solutions to customer problems that occur during the encounter of customer with physical resources of the goods or systems of the staff serving or providing the service". (Göktolga and Ozkan, 2011, p.66). This definition focuses on the interaction dimension of the service. Concrete elements that impact and contribute to the interaction dimension of the service are involved in the process. Skinner service is also called as abstract works which are created by individuals and machines through people and tools, which provide direct benefit to the customers (Okumuş and Asil, 2007, p.8). Zeithaml and Bitner define services in its simplest definition as movements, processes, and performance (Karaca, 2011, p.69).

 The concept of quality is defined by Deming as "customer judgment about the product or service produced by

the business" (Deming, 1998, p.137), and by Crosby (1979) as the "degree of compliance of a product with the requirements" Definition of quality specified in the TSE standards is as follows: the sum of the features of a product or service based on the determined or probable needs. Defining the quality of service includes two perspectives as internal and external. According to the internal perspective, the quality of service is defined within the framework of customer perceptions, expectations, attitudes and satisfaction (Sachdev and Verma, 2004, p.97). The quality of service is to give an excellent service to meet customer expectations. In another definition for the quality of service, the quality of service is defined as completely meeting customer expectations or exceeding those expectations.

When the quality of service is examined in terms of customer expectations and perceptions, it can be defined as a comparison between customer expectations and perceptions (Parasuraman, Zeithaml and Berry, 1985, p.42). Customer interprets the quality by herself/himself detecting many factors, and compares the services that she/he received and expected.

The purpose of research

The purpose of this research is to provide students, customers of educational institutions as one of the leading institutions in the service sector, to assess the quality of the service they receive. It will be tried to detect whether or not there are differences in the quality of service of education service provided by similar higher education institutions that include distance education programs in Turkey. It is aimed that ideas emerging from the evaluation of obtained results shall contribute to improving the quality of higher education services.

MATERIALS AND METHOD

While several methods and equipment have been developed to measure the quality until today, in the research project designed to measure the quality of service of e-mba programs provided in distance education programs, survey is applied as a method, and SERVQUAL is applied as a method of assessment. SERVQUAL model, developed by Parasuraman, Zeithaml, and Berry (1994), is a model accepted and applied extensively to measure the quality of service. In this model, "perceived service quality" statement is used instead of the quality of service. Perceived service is the result of a comparison between customer expectations prior to receiving the service (expected service) and the actual experience of service s/he benefited, and it is evaluated as the degree and direction of the difference between customer expectations and the perceived performance. And expectations refer to customer wishes and desires for the service. And the relations between the expected service and perceived service are as follows: When expected service is greater than perceived service, the perceived quality is far from satisfactory, and an unaccepted level of quality will come into being. When expected service is equal to perceived service, the perceived quality will be satisfactory. When expected service is smaller than perceived service, perceived quality will be higher than the satisfactory and the ideal level of quality will come into being (Parasuraman, Zeithaml and Berry, 1985, pp.48-49). This model includes the differences between approach and practices of businesses providing the service and expectations of customers benefiting the service, and sources of these differences.

There are a total of 10 dimensions that determine the quality of service. Then, Parasuraman, Zeithaml and Berry (1991), assessing surveys that they applied through factor analysis and reducing the ten dimensions that determine the quality of service to five dimensions, developed a questionnaire which is a service of quality measurement tool and they called it as Servqual. These five dimensions in the survey consist of tangibles, reliability, responsiveness, credibility (ability, courtesy, credibility and security), and empathy (accessibility, communication, and customer understanding).

The questionnaire used in the study consists of a prior knowledge word addressed to respondents, 22 Likert-type questions measuring expectations and perceptions, and questions reflecting the demographic characteristics of the participants. In the first section of the study, 22 variables representing 5 dimensions (reliability, responsiveness, credibility, empathy, tangibles), which will help to understand the general expectations of students for the education that they receive, are adapted according to characteristics of the distance education.

Perceptions constitute the second part of the model. In this section, all of 22 variables that will measure the assessments of students about the universities providing distance education are compared. All in all, if the service received meets the expectations or is above expectations, it is concluded that the service is in good quality. Otherwise, the situation that the service received is below expectations comes into being, and there is a feeling of dissatisfaction. For this reason, SERVQUAL model is also called as gap analysis model.
    In Turkey, distance education at universities include undergraduate, graduate, degree completion, post-

graduate and applications as post-graduate. In recent years, the number of distance education students has increased significantly. Therefore, in order to use this potential, many universities have started to focus on distance education programs. Today, there are 156 universities (54 of which are private universities) in Turkey.

The number of universities providing distance education with an E-MBA program in Turkey is 21. However, this number includes universities which will be newly opened, newly accept students, and do not have students at the moment. These universities: Anadolu University, Ankara University, Ataturk University, Bahcesehir University, Beykent University, Çukurova University, Ege University, Fatih University, Gazi University, Ankara University, Isik University, Istanbul Aydın University, Istanbul Bilgi University, Istanbul University, Karadeniz Technical University, Maltepe University, Mersin University, On Dokuz Mayıs University, Sakarya University, Süleyman Demirel University and Zirve University.

The research population consists of students studying in the universities with an e-MBA program. 21 universities with an e-MBA Education Program have been identified; however the questionnaire designed within this research has been applied to five universities with e-mba program in distance education by taking into account of the difficulty and time limit to reach all of these. The sample group of the study consists of all students of 5 universities selected from universities providing e-mba education through random sampling. The names of these five universities included in the study are not given in accordance with their privacy requirements, and referred to as 1-2-3-4-5. Simple random sampling is a method sampling selected units by giving an equal chance of being selected to each sampling selection. Here, purpose of giving an equal probability to each sampling is to select each sampling from sample space with equal probability (Gegez, 2005, p.189). All of the students attending distance education e-mba programs in these five universities were included in the sampling. All students within the scope of the research were informed about the study, and were requested to participate in the study online. Each student was given the right to participate in the Internet survey with a user name and password assigned to her/him. Total of 463 students entered the system during the period of study.

The data obtained from this study was transferred to Microsoft Excel and SPSS 18.0 program in order to make the calculation and analysis. In the research, specific calculations and statistical analyzes used in SERVQUAL model were performed in SPSS system.

RESEARCH FINDINGS AND COMMENTS

In order to determine the internal consistency of applied SERVQUAL scale, reliability analysis was performed and alpha coefficients were determined. As well as descriptive statistics such as analysis frequency tables, cross tabulations, and average, t-test and ANOVA were used for comparison of scores of quality of service according to demographic characteristics of the participants and universities in which they have their education. In ANOVA analysis applied to determine whether or not levels of quality of service were different than each other in terms of demographic characteristics and universities, Levene test was used to test the homogeneity between the groups, and Tukey post hoc test was used to determine between which groups the difference are. If it is decided that there is no homogeneity between the groups as the result of Levene test, Welch test was used and evaluated instead of ANOVA test (Kurtuluş, 2004). Which of these analyses is used was stated in the tables. The findings obtained by questionnaire, were evaluated by unique calculation method of SERVQUAL method, and analyzed by statistical methods.

FINDINGS OF RELIABILITY ANALYSIS

For reliability analysis of research Cronbach's alpha model was used. Cronbach's alpha model is the one used for measuring internal consistency, it is an indicator of to what extent all the items in a scale can successfully measure any dimension. (George and Mallery, 2001, p. 209).

Reliability analysis comes to the front to gauge inter-closeness degree of questions when calculation is made by summating the values of answers to certain numbers of questions. This is also called as internal consistency. Alpha is a standard change mean and varies between 0 and 1 in social researches, alpha value of 0,70 is accepted as adequate for reliability. (Hair, Tatham, Anderson and Black, 1988, p.88)

Table 1: Reliability Coefficient

	Expectation	Perception
	Cronbach α	
Total scale	0,947	0,959
Tangibles	0,887	0,812
Reliability	0,791	0,873
Responsiveness	0,841	0,886
Credibility	0,857	0,873
Empathy	0,843	0,907

For in this study reliability values of scales and sub-dimensions are at acceptable levels, t-tests, variation and SERVQUAL analyses were proceeded for testing research hypotheses.

RESULTS

34,1% of total participants was female and 65,9% were male, while 50,5% participants were married and 40,5% single.   Initially students from age group between 21-30 with 60,7% and then age group between 31- 40 with 33,7% were enlisted. These two age groups (between 21-40) make up 94,4% of whole participation.

Distribution of the professional sectors that e-MBA service quality measurement study participants work, is like this: 14,3% is in Banking , 8,4% in Health, 8% in Service, 7,3% in Informatics, 6,9% in Education, 5,6% in Construction while of them 27,6%   serves as engineer, 16,4% as manager, 12,7% as banker, 6,3% as accountant. Almost all of the participatory e-MBA students (96,8%) resides in Turkey. In this distribution striking point is that participation from Afghanistan with 1,3% was the highest one among the participation ratios from abroad. When participation by city is examined, it is seen that the most participation was from Istanbul with 50,5%, and then comes Bursa with 7,3%, Ankara with 6,3%, Kocaeli with 5,2%, Izmir with 4,3%, Sakarya with 3,7% and Balikesir with 1,7%.

Table 2: Weighted SERVQUAL Scores Table for University 1

	University 1			
	N	Weightless Average Gaps	Weighted Average Gaps	t
Tangibles	-,1644	,2304	5,708	000
Reliability	-,2525	,3343	6,043	000
Responsiveness	-,2327	,2899	6,421	000
Credibility	-,2013	,3324	4,844	000
Empathy	-,1809	,2110	6,860	000
TOTAL GAPS	-1,02			
SERVQUAL SCORE	-0,204	,1940	8,507	000

*Servqual Score= Sum of the servqual scores (-1,02) / number of dimensions (5)

In order to investigate the difference between perceived service and desired service is different from zero for every dimension to perform t-tests for university 1's college students . The results of the t- tests is p(sig)=0,00 that means statically significant.   The differences between perceived services and desired services of students receiving education at University-1 for each dimension were found statistically significant. While the dimension where expectations of students at University-1 have not been met most is Reliability, it is followed respectively by Responsiveness, Credibility, Empathy and Tangibles.

Table 3: Weighted SERVQUAL Scores Table for University 2

	Mean	Std. Deviation	t	p(sig)
		University 2		
Tangibles	-,2047	,3105	4,661	000
Reliability	-,1808	,1963	6,511	000
Responsiveness	-,1079	,1541	4,950	000
Credibility	-,1529	,1959	5,518	000
Empathy	-,1649	,1659	7,029	000
TOTAL GAPS	-0,8			
SERVQUAL SCORE	-0,16	,1396	8,214	000

* Servqual Score = Sum of the servqual scores (-0,8) / number of dimensions (5)

In order to investigate the difference between perceived service and desired service is different from zero for every dimension to perform t-tests for university 1's college students . The results of the t- tests is p(sig)=0,00 that means statically significant.

The differences between perceived services and desired services of students receiving education at University-2 for each dimension were found statistically significant. While the dimension where expectations of students at University-2 have not been met most is Tangibles, it is followed respectively by Reliability, Empathy, Credibility, and Responsiveness dimensions.

Table 4: Weighted SERVQUAL Scores Table for University 3

	Mean	Std. Deviation	t	F (sig)
		University 3		
Tangibles	-,0863	,1571	-3,105	,004
Reliability	-,0514	,1907	-1,526	,137
Responsiveness	-,0938	,2295	-2,313	,028
Credibility	-,0119	,1514	-,444	,660
Empathy	-,0995	,1991	-2,827	,008
TOTAL GAPS	-0,34			
SERVQUAL SCORE	-0,068	,1333	-2,909	,007

* Servqual Score = Sum of the servqual scores (-1,02) number of dimensions (5)

While the differences between perceived services and desired services of students receiving education at University-3 for each dimension were found statistically significant, the differences in the dimensions of Reliability and Credibility were found insignificant, that is close to zero. While the dimension where expectations of students at University-3 have not been met most is Empathy, it is followed respectively by Responsiveness and Tangibles.

Table 5: Weighted SERVQUAL Scores Table for University 4

	Mean	Std. Deviation	t	F (sig)
		University 4		
Tangibles	-,1388	,1749	-9,079	000
Reliability	-,2170	,2830	-8,779	000
Responsiveness	-,1930	,2410	-9,163	000
Credibility	-,1628	,2484	-7,503	000
Empathy	-,1580	,1902	-9,504	000
TOTAL GAPS	-0,87			
SERVQUAL SCORE	-0,174	,1619	-12,294	000

* Servqual Score = Sum of the servqual scores (-1,02) / number of dimensions (5)

In order to investigate the difference between perceived service and desired service is different from zero for every dimension to perform t-tests for university 4's college students . The results of the t- tests is p(sig)=0,00 that means statically significant.

The differences between perceived services and desired services of students receiving education at University-4 for each dimension were found statistically significant. While the dimension where expectations of students at University-4 have not been met most is Reliability, it is followed respectively by Responsiveness, Credibility, Empathy, and Tangibles.

Table 6: Weighted SERVQUAL Scores Table for University 5

	University 5			
	Mean	Std. Deviation	t	F (sig)
Tangibles	-,1217	,1730	-9,595	000
Reliability	-,1313	,2429	-7,375	000
Responsiveness	-,1781	,2466	-9,851	000
Credibility	-,1124	,1879	-8,154	000
Empathy	-,1462	,2023	-9,857	000
TOTAL GAPS	-0,69			
SERVQUAL SCORE	-0,138	,1616	-11,639	000

* Servqual Score = Sum of the servqual scores (-1,02) / / number of dimensions (5)

In order to investigate the difference between perceived service and desired service is different from zero for every dimension to perform t-tests for university 4's college students. The results of the t- tests is p(sig)=0,00 that means statically significant. The differences between perceived services and desired services of students receiving education at University-5 for each dimension were found statistically significant. While the dimension where expectations of students at University-4 have not been met most is Responsiveness, it is followed respectively by Empathy, Reliability, Tangibles, and Credibility.

Comparison of Differences Between Universities Dimensions

Differences in service quality between universities are investigated by analysis of variance. According to the assumptions of analysis of variance, compared groups variances should be equal.

Table 7: Tests for homogeneity of variances Results Table

	Levene Statistic	df1	df2	Sig.
Tangibles	2,411	4	458	,048*
Reliability	3,139	4	458	,015*
Responsiveness	2,596	4	458	,036*
Credibility	4,396	4	458	,002*
Empathy	1,072	4	458	,370**
Servqual	2,310	4	458	,057**

*Welch test is to be made   **One-way-anova is to be made

According to the test results, tangibles, reliability, responsiveness and credibility's dimensions of the servqual score are not homogeneous between universities, empathy and the total servqual scores are found homogeneous. Based on these results, Welch test and total empathy scores are used to investigate the differences because first four dimensions are not met the one way variance assumption. One way variance test is used to find total servqual scores.

Table 8: Research on Differences Between Means with Welch Test

		Statistic	df1	df2	Sig.
Tangibles	Welch	1,859	4	125,826	,122
Reliability	Welch	5,846	4	135,012	,000*
Responsiveness	Welch	3,869	4	134,354	,005*
Credibility	Welch	6,340	4	131,988	,000*

* significant at p=0,01 level

The groups identified differences in size according to the welch test results in order to find which dimension is different between universities is used Dunnet T3 test, one-way analysis of variance and Tukey HSD test.

Table 9: Investigation of differences between means with ANOVA.

		Sum of squares	df	Mean square	F	Sig.
Empathy	Between Groups	,160	4	,040	1,040	,386
	Within Groups	17,661	458	,039		
	Total	17,821	462			
Servqual	Between Groups	,511	4	,128	4,830	,001*
	Within Groups	12,121	458	,026		
	Total	12.632	462			

* significant at p=0,01 level

Although there was no differences tangibles and empathy dimensions of the total servqual scores in E MBA programs, there was a significant statically differences credibility, responsiveness and reliability of the total servqual scores in eMBA programs.

Table10: The difference between Universities according to the Quality dimensions of Service

		UNIVERSITY				
Service quality dimension		University-1	University-2	University-3	University-4	University-5
Tangibles	University-1					
	University-2					
	University-3					
	University-4					
	University-5					
		University-1	University-2	University-3	University-4	University-5
Reliability	University-1					
	University-2					
	University-3	*	*		*	
	University-4					
	University-5					
		University-1	University-2	University-3	University-4	University-5
Responsiveness	University-1					
	University-2	*				
	University-3					
	University-4					
	University-5					
		University-1	University-2	University-3	University-4	University-5
	University-1					

		University-1	University-2	University-3	University-4	University-5
Credibility	University-2					
	University-3	*	*		*	*
	University-4					
	University-5					
		University-1	University-2	University-3	University-4	University-5
Empathy	University-1					
	University-2					
	University-3					
	University-4					
	University-5					
		University-1	University-2	University-3	University-4	University-5
Servqual	University-1					
	University-2					
	University-3	*			*	
	University-4					
	University-5	*				

* significant differences at p=0,05 level

With t-tests, the total calculated SERVQUAL scores for the quality of service of the five universities were found to be different from zero. When the differences of service dimensions between universities are evaluated:

In tangibles dimension, while according to the students expectations are not fulfilled at all universities, in terms of the scores of quality of service, sufficient evidence has not been discovered to say that there is a difference between the universities.

In terms of the scores of quality of service in reliability dimension; students of University-3 are different than students of University-1, University-2 and University-4. University-3 meets its students' expectations for reliability more than University-1, University-2 and University-4. Sufficient evidence has not been discovered to make any comparison between University-3 and University-5 and other each of other universities. So there is no difference in terms of reliability.

In terms of the scores of quality of service in responsiveness dimension; students of University-2 are different than students of University-1. University-2 meets its students' expectations for responsiveness more than University-1. Sufficient evidence has not been discovered to make any comparison between each of other universities. So there is no difference in terms of responsiveness.

In terms of the scores of quality of service in credibility dimension; students of University-3 are different than other universities. University-3 meets its students' expectations for credibility more than other four universities. Sufficient evidence has not been discovered to make any comparison between each of other universities. So there is no difference in terms of credibility.

While in empathy dimension expectations are not met in all the universities, sufficient evidence has not been discovered to say that there is a difference between the universities in terms of quality of service.

Table 11: According to the universities Dimensions of the Weighted Servqual Scores

	University-1		University -2		University -3		University -4		University -5	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Tangibles	-,1644	,2304	-,2047	,3105	-,0863	,1571	-,1388	1,749	-,1217	1,730
Reliability	-,2525	,3343	-,1808	,1963	-,0514	,1907	-,2170	2,830	-,1313	2,429
Responsiveness	-,2327	,2899	,1079	,1541	-,0938	,2295	-,1930	2,410	-,1781	2,466
Credibility	-,2013	,3324	-,1529	,1959	-,0119	,1514	-,1628	2,484	-,1124	1,879
Empathy	-,1809	,2110	-,1649	,1659	-,0995	,1991	-,1580	1,902	-,1462	2,023
Sum of the servqual scores	-1,02		-0,8		-0,34		-0,87		-0,69	
Servqual Score *	-0,204		-0,16		-0,068		-0,174		-0,138	

* Servqual Score = Sum of the servqual scores / number of dimensions (5)

In terms of the total service quality scores (SERVQUAL score): University-3 students differ from the University-1 and University-4. University-3 meets the expectations of students more than University-1 and University-4. In terms of the total service quality scores (SERVQUAL score): University-5 students differ from the University-1. University-5 meets the expectations of students more than University-1.   In terms of the total service quality scores (SERVQUAL score): Statistically sufficient evidence has not been discovered to make any comparison between University-2 and the other universities students. Similarly, statistically sufficient evidence has not been discovered to make any comparison between University-5, University-3 and University-4; University-4 and University-1.

CONCLUSIONS

Information technologies which have lead all organizations to re-arrange their organizational has become one of the indispensable tools in the educational sector in the course of time. Computer and communications technologies which were used as support tools in education services in 90's, today appears to be as media through which all of the elements of the education service are provided. One of these media is the internet-based distance learning model. Internet-based distance learning model is applied in order to fulfill two basic objectives. The first of these is to provide support services to traditional education programs, and the second is to provide educational programs entirely over the network. In this context, the Internet-based distance learning is considered to be one of the most effective and appropriate means to meet the education requirements in the current period.

Through distance education, students are offered baccalaureate, master's, doctoral degrees as well as various certifications with an education for an academic degree at universities in the various countries without going to those countries. The method which is most frequently encountered in the literature on the measurement of the quality of service and which is the most reliable in terms of structure and internal consistency is Servqual method emerging as a marketing research tool. Owing to Servqual method, which dimension of the quality of service is affected and to which extent the overall quality of service is changed by innovation and changes in the structure of the services offered by businesses can be measured. And this can guide to make such vital and high cost decisions to be made as to which extent the innovation and change can be or can not be applied.

When low quality is determined as the result of the measurement, how much of this is from which dimension must be examined and improvement should be started from the proposition with the lowest quality. And in order to

improve the issues addressed in the propositions, service delivery must be approached customer-oriented, and necessary arrangements should be made. Thus, quality of the service of the perceived service will be increased by raising the scores awarded to perception propositions.

The quality of service of distance education implemented in the education sector were examined in five dimensions as tangibles, reliability, responsiveness, credibility and empathy. Without taking universities providing education into consideration, for five dimensions determining the quality of service and the overall quality of service dimension, differences between expectations of students receiving education and perceived service quality were analyzed. The differences of scores given by students for the expected service and the expected service were statistically found significant for each dimension.

When partial SERVQUAL scores of dimensions are examined, while expected service are not met for students in all of the five dimensions affecting the quality of service at universities with e-mba education, the dimension with the most dissatisfaction is Responsiveness and it is respectively followed by Reliability, Empathy, Concrete features and Credibility. It can be said that the perceptions of the students are below their expectations. According to the survey, averages of all the expectations are higher than perceptions. It is found that expectations of participants in the research are not met and there is a dissatisfaction. It stands out that this difference is prominent particularly in variables of Responsiveness dimension. According to these results, it can be easily said that overall perceptions remained below overall expectations, and a there is a general dissatisfaction.

Whether or not there was a statistically significant relationship between demographic characteristics of the students and the quality of service that they perceived was investigated. And as demographic factors, age, marital status, income level and gender were examined. As a result of the test, no statistically significant relationship between perceived service of quality and income level, marital status and age was found.

Total SERVQUAL scores of the quality of service of E-MBA students do not differ from each other according to the gender. Only in the "Tangibles" dimension of Tangibles, reliability, responsiveness, credibility and empathy dimensions, a difference in the perception of the quality of service has been identified according to the gender, and that women were less satisfied than men has been determined.

While there is no difference in the dimensions of the quality of service at universities providing E-MBA education according to marital status, age, and income level of the students; differences in dimension of tangibles according to the gender have been identified. Satisfaction of women is less than men's in the dimension of tangibles. In order to increase the satisfaction, female students may be lead to fill out a detailed questionnaire, and what they expect from tangibles can be learned. In addition to this, by judging propositions in the dimension of tangibles, distance education portal can be arranged, and by providing the most recent resources in the library and access to these resources from library, level of satisfaction can be increased. Distance education web pages should be kept constantly up to date; they must be remarkable and understandable. In addition to this, a secure environment in distance education portal must be provided by universities.

The differences between perceived services and desired services of students receiving education at University-1 for each dimension were found statistically significant. While the dimension where expectations of students at University-1 have not been met most is Reliability, it is followed respectively by Responsiveness, Credibility, Empathy and Tangibles. In this case, by examining sub-propositions particularly starting from the dimension of reliability and by making necessary improvements, expectations of students can be met. Application-oriented studies should be focused on. A competitive environment with degrees, encourage and reward should be provided to the students. The opportunity to interact with each other and with the faculty members should be provided to the students. Also elective courses should be included in the programs.

The differences between perceived services and desired services of students receiving education at University-2 for each dimension were found statistically significant. While the dimension where expectations of students at University-2 have not been met most is Tangibles, it is followed respectively by Reliability, Empathy, Credibility, and Responsiveness dimensions. In this case, by examining sub-propositions particularly starting from the dimension of tangibles and by making necessary improvements, expectations of students can be met. Distance education portal can be arranged, the most recent resources should be available in the library and access to these resources from library should be provided. Distance education web pages should be kept constantly up to date; they must be remarkable and understandable. In addition to this, a secure environment in distance education portal must be provided by universities.

While the differences between perceived services and desired services of students receiving education at University-3 for each dimension were found statistically significant, the differences in the dimensions of Reliability and Credibility were found insignificant, that is close to zero. While the dimension where expectations of students at University-3 have not been met most is Empathy, it is followed respectively by Responsiveness and Tangibles. In this

case, by examining sub-propositions particularly starting from the dimension of empathy and by making necessary improvements, expectations of students can be met. Consultants should help the student to complete the program without any problems for the duration of education and students should be informed about the business opportunities created by the certificate/diploma that they receive at end of the program.

The differences between perceived services and desired services of students receiving education at University-4 for each dimension were found statistically significant. While the dimension where expectations of students at University-4 have not been met most is Reliability, it is followed respectively by Responsiveness, Credibility, Empathy, and Tangibles. In this case, by examining sub-propositions particularly starting from the dimension of reliability and by making necessary improvements, expectations of students can be met. In courses, application-oriented studies should be focused on. A competitive environment with degrees, encourage and reward should be provided to the students. The opportunity to interact with each other and with the faculty members should be provided to the students. Also elective courses should be included in the programs.

The differences between perceived services and desired services of students receiving education at University-5 for each dimension were found statistically significant. While the dimension where expectations of students at University-4 have not been met most is Responsiveness, it is followed respectively by Empathy, Reliability, Tangibles, and Credibility. In this case, by examining sub-propositions particularly starting from the dimension of responsiveness and by making necessary improvements, expectations of students can be met. Faculty members should provide to students every consulting service about the University and the program, and should be available to students. Administrative staff should deal with in person. The library staff should have the ability to meet demands and needs of the student.

While no difference was found between the scores of the quality of service of universities in terms of tangibles and empathy according to the students of E-MBA programs, statistically significant differences were found between the scores of the quality of service of credibility and overall quality of service (SERVQUAL score). Features such as the Internet, web page, education portal and their security which constitute tangibles are becoming features of first priority and providing a competitive advantage for any sector through advancing technological capabilities. Since almost identical facilities are available at universities, it is an expected situation that there may be a difference between them in terms of the dimension of tangibles.

While expectations of students at all university have not been met in the dimension of tangibles, sufficient evidence has not been discovered to say that there is a difference between the universities in terms of quality of service. This result does not alter the fact that universities need a certain period of time since their establishment in order to make up their deficiencies and to provide a good education. Universities established at first with a large number of deficiencies reduce their deficiencies gradually within the course of time with the increase in the number of their students and experiences.

As for the score of the quality of service of the dimension of Reliability; the expectations of the students of the University-3 is different than the expectations of the students of University-1, of University-2, and of University-4. The dimension of Reliability is an indication of whether or not the administrative structure of the university providing the service has been created. The dimension of Reliability is also about activities such as doing jobs in time and as promised, and that faculty member do their jobs properly. University-3 meets expectations of students for reliability more than students of University-1, of University-2, and of University-4. Sufficient evidence has not been discovered to make any comparison between University-3 and University-5, and between each of other universities. That is, it can be said that there is no difference in terms of reliability.

As for the score of the quality of service of the dimension of Responsiveness; the expectations of the students of the University-2 is different than the expectations of the students of University-1. This dimension reveals the importance of teaching staff for good quality of educational to be provided by the schools. The dimension of responsiveness includes criteria such as efforts of faculty members to improve students' knowledge and skills, to be exemplary to the students; to deal with the students' problems, and to find answers for questions put to them at every opportunity. University-2 meets expectations of its students for responsiveness more than University-1. Sufficient evidence has not been discovered to make any comparison between other universities for responsiveness. That is, there is no difference in terms of responsiveness.

As for the score of the quality of service of the dimension of Credibility; the expectations of students of University-3 are different than those of students of other universities. University-3 meets expectations of its students for credibility more than other four universities. Sufficient evidence has not been discovered to make any comparison between each of other universities. That is, there is no difference in terms of credibility.

While in the dimension of Empathy expectations of students of all universities are not met; sufficient evidence has not been discovered to say that there is a difference between universities in terms of the score of the quality of

service. Propositions that faculty members should help for the careers of students and advice them, that consultants should help the student to complete the program without any problems, that students should be informed about the business opportunities created by the certificate/diploma that they receive at end of the program are within the dimension of empathy.

According to these results, it is seen that the overall perceptions has remained below the overall expectations, and there has been a general dissatisfaction. In this case, it is clear that in order to increase the quality of services, and thus to increase student satisfaction, first of all the dimension of responsiveness should be displayed sensitivity. It should be followed respectively by dimensions of Reliability, Empathy, Tangibles and Credibility. In this case, by examining sub-propositions particularly starting from the dimension of responsiveness and by making necessary improvements, expectations of students can be met. Faculty members should provide to students every consulting service about the University and the program, and should be available to students. Administrative staff should deal with in person. The library staff should have the ability to meet demands and needs of the student In addition, propositions for the dimension of reliability should be handled. A competitive environment with degrees, encourage and reward should be provided to the students. The opportunity to interact with each other and with the faculty members should be provided to the students. Also elective courses should be included in the programs. By examining propositions for the dimension of Empathy, which is ranked as the third in the order of importance, improvements should be done in the practice. In accordance with this, faculty members should guide students for their careers. Consultants should help the student to complete the program without any problems, and students should be informed about the business opportunities created by the certificate/diploma that they receive at end of the program. The dimension which is ranked 4th is the dimension of Tangibles. According to this dimension, distance education portal should be arranged, the most recent resources should be available in the library and access to these resources from library should be provided. Distance education web pages should be kept constantly up to date; they must be remarkable and understandable. In addition to this, a secure environment in distance education portal must be provided by universities. The last dimension to meet the expectations of students is the dimension of credibility. By examining sub-propositions of the dimension of credibility, and by making necessary improvements, expectations of students can be met.

The demands and needs of students are critical to the design of educational systems and to improving in the following years. Identifying the expectations of the students from higher education, measuring the quality of the service they receive through the eyes of students, will be one of the most important elements that the higher education institutions should take into account to develop their quality management system. The authorities of the universities should examine the causes and consequences of assessments of the students, and produce solutions for their negative assessments. These assessments should be continuously repeated at regular intervals, and to what extent applied solutions are realized should be followed. This and similar studies should be continuously and regularly conducted in all universities, and they can be used as an important tool to enhance the quality of education in universities.

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