

GENDER ROLE ON SERVICE QUALITY PERCEPTION ABOUT ONLINE EDUCATION

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ABSTRACT

Online learning (OL) has become an important part of university education. In the past OL was applied in different universities with different forms. With rapid technological developments OL gains a new format through Internet. Students can take courses online wherever they are geographically. It provides working people and adults possibility to enroll in a higher education institution without time and space barriers. Beginning from 1980s, Turkey adapted its education system to this new form through open education faculties in state universities. However as the number of foundation universities increase, OL became more common application in many programs at different levels. In this study, the effect of genders of students who enrolled in an online program on service quality perception in Turkey will be determined and analyzed through statistical analyses.

Keywords: Education, Service Marketing, Quality, Online Learning

INTRODUCTION

Measuring quality has always been an important issue, and a limited number of studies addressed this problem (Chapman and Henderson, 2010). Students' retention and their performance are influenced by the service quality provided by the higher education institutions (Kwek, Lau and Tan, 2010). Education quality is a complicated phenomenon influenced by different factors (Targamadze et al., 2010). A service is any act or performance one party can offer to another that is essentially intangible and does not result in the ownership of anything. Its production may or may not be tied to a physical product (Kotler and Keller, 2012). According to Oldfield and Baron (2000), higher education can be seen as a pure service and educational services fall into the field of services marketing (Gruber et al., 2010). Service quality is defined as the result of the comparison that customers make between expectations about a service and perception of the way the service was delivered (Grönross, 1984). Grönross (1984), introduced the "perceived service quality model" which has three dimensions; technical quality, functional quality and image (Kang and James, 2004).

ONLINE LEARNING

Online learning is defined as "the acquisition of knowledge and skills through mediated information and instruction" (US Distance Learning Association, 2012). It is a type of educational mode that allows for flexibility in terms of mode and delivery. If there is a geographical separation between student and provider, OL will be an effective solution for both parts (Akeusola et al, 2011). Today online education exists worldwide and is applied to education at different levels (Sizoo et al, 2003). Besides online colleges, there are many traditional higher education institutions that offer their students both face-to-face and online courses together (Yener, 2013). This dual-mode system provides flexibility for working students (Ruth and Connors, 2012; Wu and Hwang, 2010). The global e-learning market is predicted to reach \$107.3 billion by the year 2015. The US and Europe have 70% of market share of this market. Asia-Pacific region has the fastest growing market with 20% growth rate annually (Jose, 2010).

Universities can increase enrollment numbers, decrease the number of extra-hire teachers and offer a more flexible schedule to people with OL (Borstorff and Lowe, 2007). OL courses mean a reduced burden on university facilities (Ruth and Connors, 2012). Although OL has many benefits for all stakeholders, there are some disadvantages for students and instructors. With the lack of human contact and personal instruction, students feel themselves isolated and OL can seem cold and impersonal (Borstorff and Lowe, 2007). Course completion rates in online education courses are often lower than in traditional classes (Ruth and Connors, 2012). OL has become increasingly popular over the years. In the 2000-2001 academic periods, more than three million students were enrolled in OL courses in the U.S. (Güneş and Altıntaş, 2012). From the 1970s onwards, Asian governments established open universities to accommodate the large numbers of adults and school-leavers unable to gain entry to conventional universities. Thailand was the first country to open an open admissions university in 1971 and the following years, open universities were established in many Asian countries such as Iran, Turkey, India, China, Japan, Hong Kong, etc (Jung and Latchem, 2007). There are 114 public universities whereas 65 foundation universities and 6 foundations vocational school in Turkey (www.yok.gov.tr). Total number of the highest education institutions is 210 and their distribution can be seen in the Table 1. In Turkey, the first Open Education faculty was established by Anadolu University in 1982. After establishing foundation higher education institutions, the numbers of OL programs rapidly increased. Today most of the state universities have OL programs too, or are prepared to open.

Table 1. Number of Higher Education Institutions in Turkey

Type of Institution	No.
State Universities	114
Foundation Universities	65
Other Institutions	25
Foundation Vocational School	6
Total	210

In Table 2 shows total number of students in higher education at different education levels with respect to open and traditional education system in 2017. 23,6% of the total students were enrolled in online education institutions in Turkey.

Table 2. Number of Students in Higher Education Institutions in Turkey in 2017

		Pre-graduate	Undergraduate	Graduate	PhD	Total
Formal	Male	2.014.944	3.291.898	563.238	107.200	5.977.280
	Female	1.650.608	2.928.847	367.228	75.334	5.022.017
	Total	3.665.552	6.220.745	930.466	182.534	10.999.297
Online Learning	Male	656.598	1.112.780	25.556	0	1.794.934
	Female	789.702	809.633	4.408	0	1.603.743
	Total	1.446.300	1.922.413	29.964	0	3.398.677
Total	Male	2.671.542	4.404.678	588.794	107.200	7.772.214
	Female	2.440.310	3.738.480	371.636	75.334	6.625.760
	Total	5.111.852	8.143.158	960.430	182.534	14.397.974

New players in the higher education market are adopting sophisticated marketing techniques to persuade students to enroll to their institution (Bencke, 2011). Students' retention and their performance are influenced by the service quality provided by the higher education institutions (Kwek, Lau and Tan,

2010). Education quality is a complicated phenomenon influenced by different factors (Targamadze et al, 2010). In evaluation of effectiveness of OL, researchers focus different aspects, such as technology and human factor in e-learning system (Wu and Hwang, 2010). Different models have different dimensions to evaluate the effectiveness of OL; however in all studies the importance of service quality has been emphasized.

SERVICE QUALITY

A service is any act or performance one party can offer to another that is essentially intangible and does not result in the ownership of anything. Its production may or may not be tied to a physical product (Kotler and Keller, 2012). According to Oldfield and Baron (2000), higher education can be seen as a pure service and educational services fall into the field of services marketing (Gruber, et al., 2010). The concept of quality is defined by Deming (1998) as “customer judgment about the product or service produced by the business”, and by Crosby (1979) as the “degree of compliance of a product with the requirements”. In literature there are two popular models used widely to measure service quality (Kang and James, 2004). The American perspective of service quality is based primarily on Parasuraman et al’s proposition that is “Gaps model” also known as SERVQUAL, only reflects the service delivery process. It has five components which are reliability, assurance, tangibles, responsiveness and empathy (Parasuraman et al, 1988). The SERVQUAL model is frequently used to evaluate the students’ perceived service quality in the education industry (Russell, 2005; Dursun et al., 2013, 2014). Grönroos (1984), based on the Nordic perspective, introduced the “perceived service quality model” which has three dimensions; technical quality, functional quality and image (Kang and James, 2004). Technical quality answers the question what the customer gets. Functional quality answers the question of how he gets it. Functional quality cannot be evaluated as objectively as the technical dimension. The organization’s image works as a filter and can positively or negatively modify the customers’ perception of service quality. The expectations of consumers are influenced by their view about company and its image so corporate image or brand image will be an important dimension of perceived service quality (Grönroos, 1984).

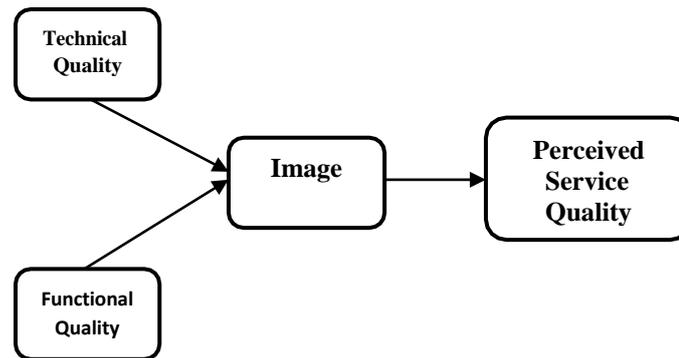
BRAND IMAGE

Brand is a name, term, sign, symbol, or design, or a combination of them, intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of competitors. It is generally agreed that a brand adds to the value of a product or service. This added value is termed brand equity. Marketing researchers suggested brand image is a vital element of brand equity. Keller (1993) defined brand image as “a set of perceptions about a brand as reflected by brand associations in consumer’s memory”. Aaker (1991) defined it as “a set of associations, usually organized in some meaningful way”. As all companies, higher education institutions which hold a favorable image by the public would definitely gain a better position in the market, sustainable competitive advantage and increase market share (Sondoh et al, 2007). Higher education institutions should develop a distinct image to create a competitive advantage in an increasingly competitive market (Gündüz and Yener, 2012). According to Kotler and Fox (1995), an institution’s current image is often more important than quality because perceived image actually influences choices made by prospective students. Students’ retention and their academic performance are influenced by the service quality provided by the higher education institutions (Kwek, Lau and Tan, 2010).

RESEARCH METHODOLOGY

To measure service quality, Grönroos Service Quality Model was used. This model is more appropriate for representation of service quality than the SERVQUAL perspective, which concentrates only on functional quality (Kang and James, 2004). The model is represented below in Figure 1.

Figure 1: Grönross Service Quality Model



Hence there are three research hypotheses, and they are seen below,

H₁: Functional quality has significant effect on image of students, who are enrolled an online higher education program.

H₂: Technical quality has significant effect on image of students, who are enrolled an online higher education program.

H₃: Image have significant effect on perceived service quality of students, who are enrolled an online higher education program.

Research Participants and Measuring Instrument

The population of the research is nearly 3.4 million students who enrolled an online education program in a university in Turkey. Convenience sampling method was used and participation was voluntary. The survey was conducted anonymously and no personal information was collected that could be used to identify any individual participants. Sample size of the research is 294 students. Data was obtained using an online questionnaire which contains close-ended questions. At Table 3 and Table 4 demographic and profile characteristics of participants are summarized.

Table 3. Demographic Characteristics of Participants

		Male		Female	
		Frequency	%	Frequency	%
Age	20-25	61	36,1	53	42,4
	26-30	47	27,8	34	27,2
	31-35	33	19,5	17	13,6
	36-40	14	8,3	8	6,4
	40+	14	8,3	13	10,4
Marital Status	Married	74	43,8	49	39,2
	Single	95	56,2	76	60,8
Have a child?	No	101	59,8	79	63,2
	Yes	68	40,2	46	36,8
Have a job?	No	44	26,0	66	52,8
	Yes	125	74,0	59	47,2
Monthly Income	0-2000	66	39,1	44	35,2
	2001-3000	31	18,3	12	9,6
	3001-4000	21	12,4	6	4,8
	4000+	20	11,8	2	1,6

According to the demographic characteristics %74 of male students and %47,2 of female students have a job. Half of the male students and %37,6 of the female students have graduated from another higher education institution before. The both group has nearly same ratio about Internet connection point for the courses.

Reliability Analyses

Internal reliability of the factors is calculated with Cronbach’s alpha test. It is expected the alpha value is greater than 0,7 (Nunnally, 1978). According to the result of the analysis, Cronbach alpha value is 0,809 for males and 0,771 for females. It means the measurement instrument has sufficient internal consistency for further analysis such as factor analysis.

Table 4. Profile Characteristics of Participants

		Male		Female	
		Frequency	%	Frequency	%
Has graduated before?	No	79	46,7	78	62,4
	Yes	90	53,3	47	37,6
Connection to OL System	No connection	21	12,4	11	8,8
	Mobile	60	35,5	43	34,4
	Home	78	46,2	57	45,6
	Workplace	10	5,9	14	11,2
Course material	Course book	87	51,5	68	54,4
	Supplementary books	109	64,5	73	58,4
	Online system	83	49,1	70	56,0
	None	7	4,1	3	2,4

According to the results in Table 5, male students’ perception about functional quality and image is higher than female students. However female students’ technical quality perception is higher than male students.

Table 5. Descriptive Statistics of Service Quality Factors

	Male		Female	
	Mean	Std. Dev.	Mean	Std. Dev.
Functional Quality	2,77	0,76	2,56	0,66
Technical Quality	2,62	0,88	2,65	0,82
Image	2,60	0,94	2,45	0,77

Correlation Analysis

In Table 6 correlation analyses between factors in Grönross service quality models are seen. According to the results all factors have significant and positive relationship with each other. Functional and technical quality factors have higher correlation with image factor. However the relationship between technical quality and functional quality is positive and low comparatively (%18,7).

For male students, there are positive relationships between all the factors included in the Grönross service quality factors, then we cannot reject any of the research hypotheses (H₁, H₂, and H₃). However for female students, there is no significant relationship between technical quality and functional quality factors.

Other Analysis

Technical quality perception of married male students is higher than single male students ($\mu_{\text{married}} = 2,77$,

$\mu_{\text{single}} = 2,50$). Also image perception of married male students is higher than single male students ($\mu_{\text{married}} = 2,85$, $\mu_{\text{single}} = 2,40$). Functional quality perception among female students who have a job is higher than who do not have a job ($\mu_{\text{work}} = 2,69$, $\mu_{\text{nonwork}} = 2,45$). Image perception of mle students who have a job is higher than who do not have a job ($\mu_{\text{work}} = 2,69$, $\mu_{\text{nonwork}} = 2,35$).

Table 6. Correlation Analysis of Quality Factors

	Male			Female		
	Functional	Technical	Image	Functional	Technical	Image
Pearson Corrl.	1	,245	,541	1	,079	,454
Functional Sig. (2-tailed)		,001	,000		,378	,000
N	169	169	169	125	125	125
Pearson Corrl.	,245	1	,644	,079	1	,577
Technical Sig. (2-tailed)	,001		,000	,378		,000
N	169	169	169	125	125	125
Pearson Corrl.	,541	,644	1	,454	,577	1
Image Sig. (2-tailed)	,000	,000		,000	,000	
N	169	169	169	125	125	125

CONCLUSION

Online learning is an important issue in today's university education systems. With the developments in technology, OL became common and easily applicable for higher education institutions and students. Like many countries, universities in Turkey started to use OL system effectively. The most significant measures of OL effectiveness were the quality of the OL system and learner attractiveness. According to the results of the analyses, technical and functional quality of OL and image of institution have positive effect on students' perceived service quality. Since image of the higher education institution is affected many different factors, its effect on perceived service quality is not so high as technical and functional quality of OL system. If the university can enhance its technical and functional quality perception about distance learning system, students' service quality perceptions also enhance. However increase in image perception does not depend on only OL system and only some portion of the image raises perceived service quality about OL.

OL provides institutions to persuade students to enroll to their programs and these students belong to different social backgrounds. Women may not have chance for higher education degree because of many reasons such as economic reasons or responsibilities for children care. With OL programs women and other disadvantaged groups can easily get an undergraduate or graduate degree. Customer satisfaction is an important concept for all companies. In higher education institutions customers are students and academic staff. The success of a university largely depends on their customers' success. Universities have limited financial resource and OL is a useful tool for universities about cost saving. However if its customers' satisfaction level is low in OL courses in comparison with other courses, there are two choice for institutions. First, leaving the OL system and the second is to solve students' problems in OL system to provide academic and financial sustainability.

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