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Examination of the Service Quality Perceptions and Academic Engagement Levels of the Students of the Faculty of Sport Sciences

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ABSTRACT

The purpose of this study is to examine the perceptions of service quality and academic engagement of athletic department students according to the variables of gender, age, department, class, type of education, athletic status, and origin from different states; to determine if there is a relationship between perceptions of service quality and academic engagement; and finally, to determine if service quality predicts academic engagement. The study was conducted using the survey model with quantitative approaches. 298 students of Karamanoğlu Mehmetbey University, Faculty of Physical Education voluntarily participated in the study. The service quality scale, academic engagement scale, and a personal information form prepared by the researchers were used for the study. The T-test, Analysis of Variance (ANOVA), Pearson's Correlation Coefficient, and Linear Regression analysis were used to analyse the data. According to the results, significant differences were found in the overall scale of service quality and/or its sub-dimensions depending on the variables other than the type of education. Significant differences were found in the academic engagement scale in relation to other variables, except for the variables of age and type of education. It was also found that there was a positive and moderately significant relationship between athletic department students' ratings on the quality of service scale and academic engagement. In addition, it was found that 22% of these students' academic engagement was determined by service quality and service quality was a significant contributor to the prediction of academic engagement. As indicated by the result, a high perception of service quality has a positive effect on academic engagement.

Keywords: Academic Engagement, Higher Education, Service Quality



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INTRODUCTION

Universities are institutions that produce science and thus serve humanity. Universities not only serve, but also have functions such as educating people, contributing to the formation of culture and civilization, and pioneering change. Therefore, it can be said that with their dynamic structure, they have the ability to form opinions in the society in which they live. They fulfill these functions with many units (faculties, colleges, etc.) within their institutions. One of these units is the sports science faculties. Sports science faculties are departments that contribute to the formation of sports policy, lead society to sports, teach healthy nutrition and healthy lifestyles, conduct scientific research to achieve a high level of efficiency in sports, and train sports personnel to fulfill these tasks. Recently, both the number of universities and the number of sports science faculties have increased in parallel with developments in the world and in Türkiye to increase awareness of exercise and sports. This quantitative increase has also brought competition to increase quality.

The growing number of faculties and colleges offering physical education in Turkish universities has increased the number of alternatives for students. Higher education institutions providing physical education can train a high-quality workforce under competitive conditions to ensure student loyalty and continuity of loyalty if they are supported by higher education administrations by being recommended, increasing student satisfaction levels, and improving service quality by improving the facilities they provide (Şirin et al., 2019). Students' quality expectations from the higher education institution where they will study are basically a multidimensional phenomenon. This phenomenon includes various dimensions such as the quality of education, physical spaces, application opportunities, social, cultural, and athletic opportunities, and individual characteristics of students (Saydan, 2008). In order for higher education institutions to meet these expectations, they must have certain service quality standards. Service quality can be defined as an indicator of the degree of satisfaction with the service provided to meet the demands and needs of consumers (Can, 2016). In other words, it is the ability of institutions to meet the expectations of consumers. Higher education institutions must measure these quality standards and detect their deficiencies, constantly work to improve them, and eliminate the identified deficiencies. After all, the higher the quality of an institution, the higher the quality of its results. Therefore, it is very important to measure quality and be able to produce a high quality product or service, both in terms of competition among companies producing goods and services and in terms of meeting the requirements and needs of their customers. Service quality in the university is a process that is created through the interaction of managers, academics, administrators and students. Since the basic service provided in higher education institutions is education, it involves different characteristics than in other sectors. This situation makes the evaluation of services provided in higher education institutions more complex.

Efforts to improve and develop higher education begin with finding solutions to the qualitative and quantitative problems of higher education institutions. Recruitment of students in accordance with employment opportunities, training of sufficient number and quality of faculty members, education, health, housing, social activities, recreation, problems of students' livelihood, internal organization of universities, compatibility of education with labor market are among the problems of higher education that have been widely discussed recently (Ozankaya, 1984). In order to speak of successful educational outcomes in higher education, universities should not only have and carry out qualified and rich educational practices, but also their students should strive to actively participate in the educational and training activities of the institution. Students' interests, desires, attitudes, values, and behaviours regarding the university and the education they receive affect their academic and

social compatibility with the university, which in turn is reflected in their attendance, academic development, and academic success. There is a significant positive relationship between organizational image and organizational commitment (Erdoğan & Sural, 2021). In this sense, belongingness, which results from students' harmony with the university's academic and social system, is an important component of students' school life because it is associated with success and personal development (Kızılkaya, 2021). Belonging can be interpreted as 'relevance', 'relationship', 'affiliation', 'relationship', 'affiliation' and 'association' (Alptekin, 2011). The concept of belonging is used in the same sense with similar concepts such as topophilia (attachment to a place at the level of love), identification with a place, entanglement with the environment, rootedness with that place, and union in the same feelings with the place (Brocato, 2006). In addition, belonging can develop to a person, a group, an institution, a culture, a society, an ethnicity, an identity, or a space or place (Duru, 2015). Student belonging is also the focus of research that examines student experiences in order to learn about the most important dimensions of higher education students' experiences. On the one hand, belonging continues to serve to make sense of students' experiences through the learning experience, and on the other hand, it is a very important mechanism for interpreting the relationship between the student and the institution and, more generally, the qualities and dynamics of higher education (Coates, 2006).

Academic engagement is defined by Fredricks et al. (2004) as psychological and behavioral learning initiatives of students that involve mastery of skills and knowledge in academic activities. In addition, several definitions of belonging have been proposed by researchers, including Skinner et al. (2009), who define belonging as the quality of a student's commitment to school activities, values, and goals. Student belonging is the commitment of students to work and participate in the educational environment to achieve their desired outcomes (Furlong & Christenson, 2008). School belonging is students' involvement in academic and non-academic activities and can be observed through their behavior, emotions, and cognitive aspects in school and the classroom in general (Fredricks et al., 2004). In addition, Henrie et al. (2015) suggest that academic engagement represents an engagement or attempt to be involved in the context of academic learning in school.

A country's high or low academic success is significantly influenced by many factors, including perceived service quality in educational institutions (Kasmin & Hii, 2017). Service quality is a comprehensive assessment of the strength and quality of learning services that students experience (Santos & Santos, 2003). Students who rate service quality as high believe that their needs are prioritised and met at the university. This creates the impression that the university fully supports them in their efforts to achieve high academic success. This may increase academic engagement. A careful review of the literature on university service quality and academic engagement /school affiliation reveals that there are few studies that examine the relationships between these concepts together. In Stodnick and Rogers' (2008) study using SERVQUAL to determine perceptions of service quality, it was found that students' perceptions of high service quality led to high levels of academic engagement. In another study conducted on this topic, a university's service quality was found to have a positive impact on academic motivation and academic engagement (Ilgan et al., 2013). In another study, among the dimensions of service quality, academic aspects and physical characteristics are the most important dimensions that explain the difference in the perception of school affiliation (Kutlu-Guendoğdu & Asan, 2019). In another study on this topic, a significant positive relationship was found between the five dimensions of the SERVQUAL scale service quality instrument and school affiliation. Furthermore, the study found that in addition to behaviours that increase satisfaction, improvements in timely responses to inquiries and helpfulness also increased students' academic engagement.

The service quality of higher education institutions is an important competitive factor. Moreover, it can be said that another competitive factor is academic engagement. In today's conditions, managing the process of change has become more important. In this context, learning, planning and implementing change is considered as a priority issue for the successful survival of an institution (Akyüz, 2006). In this context, institutional success and the creation of a productive environment are related to both the quality of institutional services and the individual's sense of belonging to the institution. The literature review revealed that while there are many studies that focus on the service quality of higher education institutions, the number of studies that focus on academic engagement and the relationship between service quality and academic engagement is quite limited. It is hypothesised that service quality contributes positively to the preference of higher education institutions and academic engagement. Consistent with this information, the purpose of this study is to examine the perceptions of service quality and academic engagement by students in the School of Sport Sciences in relation to several variables. In addition, in line with the results obtained, another aim of this research is to make recommendations to these institutions in order to increase the service quality provided in higher education institutions.

METHOD

This section includes the research model, research group, data collection tools, and data analysis.

Research Model

In this study, among the quantitative research methods, the survey model was used. In survey studies, existing situations are revealed through the description of the subjects (Büyüköztürk, 2018). This method, which is widely used in social sciences, was applied to study the sample group in terms of variables such as (gender, age, department, class, type of education, playing sports and coming from different provinces for university education).

Population and Sample

The population of this study consists of university students studying at Karamanoğlu Mehmetbey University Faculty of Sport Sciences. The sample consists of 298 university students who voluntarily accepted to fill in the data collection tools in line with the convenience sampling method. The demographic characteristics of the participants included in the study are shown in Table 1.

Table 1. Demographic Characteristics of Participants

Features	Categories	f	%
Gender	Male	180	60.4
	Female	118	39.6
Age	17-19 Age	54	18.1
	20-22 Age	170	57.0
	23-25 Age	59	19.8
	26 and higher	15	5.0
Department	Coaching Education	73	24.5
	Physical Education and Sports	80	26.8
	Sport Management	145	48.7
Type of Instruction	First Education	183	61.4
	Secondary Education	115	38.6
Sports Participation Status	Yes	229	76.8
	No	69	23.2
Coming to University from Another Province	Yes	207	69.5
	No	91	30.5

Grade Level	1. Grade	60	20.1
	2. Grade	34	11.4
	3. Grade	64	21.5
	4. Grade	140	47.0
Total		298	100,0

Data Collection Tools

For the purposes of this study, the Service Quality Scale, the Academic Engagement Scale, and the Personal Information Form created by the researchers were used. In the personal information form, there are items regarding the participants' gender, age, department, education level, participation in sports, class level and coming to the university from another province.

Service quality scale: in the scale developed by Erdoğan (2020) in his dissertation, a structure with 5 factors and 22 items was formed as a result of the analyses. Of the 22 items remaining in the scale, 6 were collected in the first factor, 5 in the second factor, 4 in the third factor, 4 in the fourth factor, and 3 in the fifth factor. The factor loadings of these 22 items ranged from .56 to .80, and in our analysis, the Cronbach's alpha ranged from .92 to .94.

Academic Engagement Scale: as a result of the exploratory and confirmatory factor analyses applied to the scale developed by Kızılkaya and Doğan (2022), a 25-item structure with three subdimensions emerged. The sub-dimensions were labelled as "participation in class, access to library and resources," "communication with faculty members," and "participation in scholarly and cultural activities." While the Cronbach's alpha reliability coefficient for the overall scale was .91, the Cronbach's alpha reliability coefficients for the individual subdimensions ranged from .78 to .90. In our analysis, the Cronbach's alpha ranged from .77 to .92.

Data Collection

Data for the study were collected online. The data collection instruments were prepared to allow online response collection through the Google Forms application, and then sent to the students of the Faculty of Sports Sciences in Karaman through the link address. The Ethics Committee Report for the study was approved by the Ethics Committee of Karamanoğlu-Mehmetbey University of Social Sciences.

Analysis of Data

All data collected by the students of the Faculty of Sports Sciences were carefully checked, and the data with erroneous and outlier values were removed from the data collected by 310 university students, and analyses of 298 data were performed. Descriptive statistics were used to examine whether the total and subfactor scores of the scales were normally distributed, and kurtosis skewness coefficients were used to determine that all subcategories of all independent variables in the total and subfactor scores of the scale were not normally distributed. According to Tabachnick and Fidell (2013), kurtosis and skewness values within the range of ± 1.5 are indicators of normal distribution. Since the Skewness value of the service quality scale was -.611 and the Kurtosis value was .592, and the Skewness value of the academic engagement scale was -.388 and the Kurtosis value was .478, parametric tests were used in the analyzes. The T-test, analysis of variance, Pearson's correlation coefficient, and linear regression analysis were used in the analysis of the data.

FINDINGS

This section includes the results obtained through the data collected.

Table 2. T-test Analysis of Service Quality and Academic Engagement Scale of the Students Studying at the Faculty of Sport Sciences According to Gender Variable

The Scale	Factors	Gender	n	\bar{X}	S	t	p
Service Quality Scale	Academic Appearance	Male	180	3,60	,91	-2.282	.023*
		Female	118	3,83	,76		
	Image	Male	180	3,05	1,06	-.535	.593
		Female	118	3,12	,98		
	Administrative Appearance	Male	180	3,41	1,00	-1.653	.099
		Female	118	3,60	,83		
	Access	Male	180	3,32	1,06	-.978	.329
		Female	118	3,43	,92		
	Empathy	Male	180	3,47	1,05	-1.094	.275
		Female	118	3,60	,97		
The Scale Wide	Male	180	3,37	,89	-1.513	.131	
	Female	118	3,52	,76			
Academic Engagement Scale	Class Attendance, Library, Resource Access	Male	180	3,33	,69	-3.101	.002*
		Female	118	3,58	,63		
	Communication with Faculty Members	Male	180	3,19	,96	-.325	.746
		Female	118	3,23	,88		
	Participation in Scientific and Cultural Events	Male	180	3,06	,92	.369	.712
		Female	118	3,02	,91		
	The Scale Wide	Male	180	3,20	,73	-1.059	.290
Female		118	3,29	,64			

* $p < 0.05$

Examining Table 2, according to the results of the T-test, a statistically significant difference was found in relation to the gender variable in academic appearance [$t(-2.282) = .023$; $p < 0.05$], the sub-dimension of the quality of service scale, and in class attendance, library, access to resources [$t(-3.101) = .002$; $p < 0.05$], the sub-dimension of the academic engagement scale. When analyzing the arithmetic means, it appears that female students scored higher than male students on both dimensions. When examining the results of the other sub-dimensions of the Quality of Service scale and the Academic Engagement Scale, as well as the overall scale, it was statistically determined that there was no significant difference between the genders ($p > 0.05$).

Table 3. T-test Analysis of Service Quality and Academic Engagement Scale of the Students Studying at the Faculty of Sport Sciences According to the Type of Education Variable

The Scale	Factors	Type of Instruction	n	\bar{X}	S	t	p
Service Quality Scale	Academic Appearance	First Education	183	3,64	,84	-1.365	.173
		Secondary Education	115	3,78	,89		
	Image	First Education	183	3,05	,98	-.587	.558
		Secondary Education	115	3,12	1,10		
	Administrative Appearance	First Education	183	3,50	,94	.399	.690
		Secondary Education	115	3,46	,950		

Access	First Education	183	3,34	,99	-.459	.646
	Secondary Education	115	3,40	1,02		
Empathy	First Education	183	3,47	1,03	-1.047	.296
	Secondary Education	115	3,60	1,00		
The Scale Wide	First Education	183	3,40	,82	-.734	.464
	Secondary Education	115	3,48	,88		
Class Attendance, Library, Resource Access	First Education	183	3,42	,69	-.140	.889
	Secondary Education	115	3,44	,67		
Communication with Faculty Members	First Education	183	3,16	,96	-.951	.343
	Secondary Education	115	3,27	,88		
Participation in Scientific and Cultural Events	First Education	183	3,02	,89	-.593	.553
	Secondary Education	115	3,09	,94		
The Scale Wide	First Education	183	3,21	,70	-.705	.482
	Secondary Education	115	3,27	,69		

When Table 3 is examined, it is concluded that there is no significant difference in the service quality scale and its sub-dimensions and academic engagement scale and its sub-dimensions in terms of the type of education variable according to the T-test results ($p>0.05$).

Table 4. T-test Analysis of the Service Quality and Academic Engagement Scale of the Students Studying at the Faculty of Sport Sciences According to the Variable of Sporting Status

The Scale	Factors	Sports Participation Status	n	\bar{X}	S	t	p
Service Quality Scale	Academic Appearance	Yes	229	3,74	,86	1.635	.103
		No	69	3,54	,84		
	Image	Yes	229	3,11	1,02	1.046	.297
		No	69	2,96	1,05		
	Administrative Appearance	Yes	229	3,54	,93	1.959	.051
		No	69	3,29	,98		
	Access	Yes	229	3,45	1,00	2.573	.011*
		No	69	3,09	,98		
	Empathy	Yes	229	3,61	1,01	2.741	.007*
		No	69	3,23	1,02		
	The Scale Wide	Yes	229	3,49	,85	2.158	.032*
		No	69	3,24	,80		
Academic Engagement Scale	Class Attendance, Library, Resource Access	Yes	229	3,47	,66	1.972	.050
		No	69	3,29	,73		
	Communication with Faculty Members	Yes	229	3,21	,89	.207	.836
		No	69	3,18	1,04		
	Participation in Scientific and Cultural Events	Yes	229	3,08	,90	1.153	.250
		No	69	2,94	,94		
	The Scale Wide	Yes	229	3,26	,67	1.264	.207
		No	69	3,14	,76		

* $p<0.05$

Examining Table 4, a statistically significant difference was found in the T-test results of the access [t(2.573)= .011; p<0.05] and empathy [t(2.741)= .007; p<0.05] subdimensions of the service quality scale and the service quality scale in general [t(2.158)= .032; p<0.05] with respect to the variable of playing sports. When analyzing the arithmetic means, it can be seen that those who participate in sports score higher than those who do not participate in sports in both sub-dimensions and in the whole scale. When analyzing the data from the other sub-dimensions of the quality of service scale and the overall academic engagement scale and its sub-dimensions, it was statistically determined that there was no significant difference in relation to the variable of playing sports (p > 0.05).

Table 5. T-test Analysis of Service Quality and Academic Engagement Scale of the Students Studying at the Faculty of Sport Sciences According to the Variable of Different City for University Education

The Scale	Factors	Another Province	n	\bar{X}	S	t	p
Service Quality Scale	Academic Appearance	Yes	207	3,76	,84	1.973	.049*
		No	91	3,54	,89		
	Image	Yes	207	3,09	1,03	.330	.742
		No	91	3,05	1,03		
	Administrative Appearance	Yes	207	3,51	,93	.772	.441
		No	91	3,42	,97		
	Access	Yes	207	3,45	,94	2.129	.034*
		No	91	3,18	1,12		
	Empathy	Yes	207	3,59	,97	1.802	.073
		No	91	3,36	1,11		
The Scale Wide	Yes	207	3,48	,82	1.556	.121	
	No	91	3,32	,88			
Academic Engagement Scale	Class Attendance, Library, Resource Access	Yes	207	3,46	,64	1.116	.265
		No	91	3,36	,76		
	Communication with Faculty Members	Yes	207	3,26	,90	1.535	.126
		No	91	3,08	,97		
	Participation in Scientific and Cultural Events	Yes	207	3,16	,90	3.125	.002*
		No	91	2,80	,90		
	The Scale Wide	Yes	207	3,30	,67	2.358	.019*
		No	91	3,09	,73		

*p<0.05

When the t-test results in Table 5 are analyzed, it is found that there is a significant difference in academic appearance [t(1.973)= .049; p<0.05] and Access [t(2.129)= .034; p<0.05], which are sub-dimensions of the service quality scale, in participation in scientific and cultural activities [t(3.125)= .002; p<0.05], which is one of the sub-dimensions of the academic engagement scale, and in academic engagement scale in general [t(2.358)= .019; p >0.05] according to the variable of coming from different provinces for university education. Considering the means of the groups, it was seen that students coming from outside the province for university education received higher scores than those coming from within the province. It was determined that there was no statistically significant difference in the overall service quality scale and other sub-dimensions and other sub-dimensions of the academic engagement scale according to the variable of coming from different provinces for university education. (p>0.05).

Table 6. ANOVA Test Analysis of Service Quality and Academic Engagement Scale of the Students Studying at the Faculty of Sport Sciences According to Age Variable

The Scale	Factors	Age Category	n	\bar{X}	S	Source of Variance	Sum of Squares	df	Mean Squares	F	p	Tukey
Service Quality Scale	Academic Appearance	17-19 Age	54	4,05	,61	Intergroup	10,182	3	3,394	4,777	,003*	1-2 1-3
		20-22 Age	170	3,58	,87	Intragroup	208,860	294	,710			
		23-25 Age	59	3,62	,95	Total	219,042	297				
		26 and higher	15	3,93	,79							
	Image	17-19 Age	54	3,54	,70	Intergroup	18,991	3	6,330	6,300	,000*	1-2 1-3
		20-22 Age	170	2,97	1,03	Intragroup	295,415	294	1,005			
		23-25 Age	59	2,85	1,17	Total	314,406	297				
		26 and higher	15	3,48	,84							
	Administrative Appearance	17-19 Age	54	3,92	,56	Intergroup	18,541	3	6,180	7,384	,000*	1-2 1-3
		20-22 Age	170	3,38	,96	Intragroup	246,071	294	,837			
		23-25 Age	59	3,27	1,11	Total	264,612	297				
		26 and higher	15	3,98	,47							
	Access	17-19 Age	54	3,85	,65	Intergroup	16,783	3	5,594	5,828	,001*	1-2 1-3
		20-22 Age	170	3,24	1,02	Intragroup	282,212	294	,960			
		23-25 Age	59	3,23	1,13	Total	298,996	297				
		26 and higher	15	3,52	,85							
Empathy	17-19 Age	54	4,06	,68	Intergroup	21,364	3	7,121	7,272	,000*	1-2 1-3	
	20-22 Age	170	3,39	1,02	Intragroup	287,917	294	,979				
	23-25 Age	59	3,33	1,20	Total	309,281	297					
	26 and higher	15	3,73	,61								
The Scale Wide	17-19 Age	54	3,88	,55	Intergroup	15,745	3	5,248	7,943	,000*	1-2 1-3	
	20-22 Age	170	3,32	,85	Intragroup	194,256	294	,661				
	23-25 Age	59	3,27	,95	Total	210,001	297					
	26 and higher	15	3,74	,62								
Academic Engagement Scale	Class Attendance, Library, Resource Access	17-19 Age	54	3,50	,54	Intergroup	,872	3				
		20-22 Age	170	3,40	,71	Intragroup	135,943	294	,291			
		23-25 Age	59	3,40	,74	Total	136,816	297	,462			
		26 and higher	15	3,59	,50							
	Communication with Faculty Members	17-19 Age	54	3,06	,76	Intergroup	3,495	3	1,165	1,359	,255	
		20-22 Age	170	3,18	,94	Intragroup	251,983	294	,857			
		23-25 Age	59	3,38	1,06	Total	255,478	297				
		26 and higher	15	3,35	,75							
	Participation in Scientific and Cultural Events	17-19 Age	54	2,96	,83	Intergroup	5,070	3	1,690	2,057	,106	
		20-22 Age	170	3,00	,88	Intragroup	241,589	294	,822			
		23-25 Age	59	3,31	1,06	Total	246,659	297				
		26 and higher	15	2,93	,72							
The Scale Wide	17-19 Age	54	3,19	,51	Intergroup	1,423	3	,474	,983	,401		
	20-22 Age	170	3,20	,71	Intragroup	141,808	294	,482				
	23-25 Age	59	3,37	,82	Total	143,231	297					
	26 and higher	15	3,30	,49								

* $p < 0.05$; 1: 17-19 Age; 2: 20-22 Age; 3: 23-25 Age; 4: 26 and higher

When Table 6 is examined, the data obtained from the service quality scale sub-dimensions: academic appearance [F(4,777)=.003; $p < 0.05$], image [F(6,300)=.000; $p < 0.05$], administrative appearance [F(7,384)=.000; $p < 0.05$], access [F(5,828)=.001; $p < 0.05$] and empathy [F(7,242)=.000; $p < 0.05$] and the data obtained from the scale in general [F(7,943)=.000; $p < 0.05$]. When the arithmetic mean values are analyzed, it is seen that the students in the 17-19 age group received higher scores than the students in the 20-22 and 23-25 age groups. Although there was a significant difference in the overall and sub-dimensions of the service quality scale, there was no statistically significant difference in the overall and all sub-dimensions of the academic engagement scale.

Table 7. ANOVA Test Analysis of Service Quality and Academic Engagement Scale of Students Studying at the Faculty of Sport Sciences According to Class Variable

The Scale	Factors	Class Category	n	\bar{X}	S	Source of Variance	Sum of Squares	df	Mean Squares	F	p	Tukey
Service Quality Scale	Academic Appearance	1. Grade	60	4,08	,60	Intergroup	13,082	3	4,361	6,225 ,000*		1-2
		2. Grade	34	3,54	,78	Intragroup	205,960	294	,701			1-4
		3. Grade	64	3,74	,89	Total	219,042	297				
		4. Grade	140	3,54	,91							
	Image	1. Grade	60	3,44	,78	Intergroup	11,190	3	3,730	3,617 ,014*		1-4
		2. Grade	34	2,99	,96	Intragroup	303,216	294	1,031			
		3. Grade	64	3,10	1,07	Total	314,406	297				
		4. Grade	140	2,93	1,09							
	Administrative Appearance	1. Grade	60	3,92	,65	Intergroup	15,927	3	5,309	6,276 ,000*		1-4
		2. Grade	34	3,41	,85	Intragroup	248,685	294	,846			
		3. Grade	64	3,50	1,01	Total	264,612	297				
		4. Grade	140	3,31	,99							
	Access	1. Grade	60	3,83	,71	Intergroup	18,478	3	6,159	6,455 ,000*		1-2
		2. Grade	34	3,19	1,00	Intragroup	280,518	294	,954			1-4
		3. Grade	64	3,39	,98	Total	298,996	297				
		4. Grade	140	3,19	1,06							
	Empathy	1. Grade	60	4,09	,64	Intergroup	32,129	3	10,710	11,361,000*		1-2
		2. Grade	34	3,47	1,00	Intragroup	277,152	294	,943			1-4
		3. Grade	64	3,64	,92	Total	309,281	297				
		4. Grade	140	3,23	1,10							
The Scale Wide	1. Grade	60	3,86	,58	Intergroup	16,039	3	5,346	8,104 ,000*		1-2	
	2. Grade	34	3,32	,83	Intragroup	193,961	294	,660			1-4	
	3. Grade	64	3,47	,84	Total	210,001	297					
	4. Grade	140	3,25	,88								
Academic Engagement Scale	Class Attendance, Library, Resource Access	1. Grade	60	3,57	,56	Intergroup	2,507	3				
		2. Grade	34	3,26	,65	Intragroup	134,309	294	,836			
		3. Grade	64	3,36	,74	Total	136,816	297	,457			
		4. Grade	140	3,44	,70							
	Communication with Faculty Members	1. Grade	60	2,91	,91	Intergroup	9,605	3		3,202 ,836	3,829 ,010*	4-1
		2. Grade	34	3,01	,85	Intragroup	245,872	294				
		3. Grade	64	3,31	,81	Total	255,478	297				
		4. Grade	140	3,33	,97							
	Participation in Scientific and Cultural Events	1. Grade	60	2,89	,91	Intergroup	4,220	3		1,407 ,825	1,706 ,166	
		2. Grade	34	2,86	,87	Intragroup	242,438	294				
		3. Grade	64	3,07	,94	Total	246,659	297				
		4. Grade	140	3,15	,90							
	The Scale Wide	1. Grade	60	3,14	,63	Intergroup	2,504	3		,835 ,479	1,744 ,158	
		2. Grade	34	3,05	,68	Intragroup	140,727	294				
		3. Grade	64	3,25	,71	Total	143,231	297				
		4. Grade	140	3,31	,71							

*p<0.05

When Table 7 is examined, it is seen that there is a significant difference between the scores of the groups on the sub-dimensions of the service quality scale, namely academic appearance [F(6,225)=.000; p<0.05], access [F(6,455)=.000; p<0.05], empathy [F(11,361)=.000; p<0.05], image [F(3,617)= .014; p<0.05], administrative appearance [F(6,276)= .000; p<0.05] and the overall scale [F(8,104)= .000; p<0.05]. As a result of the analyses conducted to determine the source of the difference, it was determined that 1st year students scored significantly higher than 2nd and 4th year students in terms of academic appearance, access, empathy and scale general scores; and 1st year students scored significantly higher than 4th year students in terms of image and administrative appearance scores. When the scores obtained from interaction with faculty members [F(3,829)= .000; p<0.05], one of the sub-dimensions of the Academic Engagement Scale, were analyzed, it was concluded that 4th grade students scored statistically significantly higher than 1st grade

students. The scores obtained from the other sub-dimensions of the Academic Engagement Scale did not differ according to the groups.

Table 8. ANOVA Test Analysis of the Service Quality and Academic Engagement Scale of the Students Studying at the Faculty of Sport Sciences According to the Department Variable

The Scale	Factors	Department Category	n	\bar{X}	S	Source of Variance	Sum of Squares	df	Mean Squares	F	p	Tukey
Service Quality Scale	Academic Appearance	Coaching Education	73	3,66	1,03	Intergroup	5,085	2	2,542	3,505	,031*	3-2
		Physical Education and Sports Teaching	80	3,50	,85	Intragroup	213,957	295	,725			
		Sport Management	145	3,81	,75	Total	219,042	297				
	Image	Coaching Education	73	2,94	1,10	Intergroup	2,912	2	1,456	1,379	,254	
		Physical Education and Sports Teaching	80	3,03	1,02	Intragroup	311,494	295	1,056			
		Sport Management	145	3,17	,99	Total	314,406	297				
	Administrative Appearance	Coaching Education	73	3,46	1,07	Intergroup	3,154	2	1,577	1,779	,171	
		Physical Education and Sports Teaching	80	3,33	,97	Intragroup	261,458	295	,886			
		Sport Management	145	3,58	,85	Total	264,612	297				
	Access	Coaching Education	73	3,32	1,07	Intergroup	9,115	2	4,557	4,638	,010*	3-2
		Physical Education and Sports Teaching	80	3,11	1,07	Intragroup	289,881	295	,983			
		Sport Management	145	3,53	,90	Total	298,996	297				
	Empathy	Coaching Education	73	3,48	1,11	Intergroup	6,947	2	3,473	3,389	,035*	3-2
		Physical Education and Sports Teaching	80	3,30	1,06	Intragroup	302,334	295	1,025			
		Sport Management	145	3,66	,93	Total	309,281	297				
	The Scale Wide	Coaching Education	73	3,37	,96	Intergroup	4,589	2	2,294	3,295	,038*	3-2
		Physical Education and Sports Teaching	80	3,26	,86	Intragroup	205,412	295	,696			
		Sport Management	145	3,55	,75	Total	210,001	297				
Academic Engagement Scale	Class Attendance, Library, Resource Access	Coaching Education	73	3,40	,77	Intergroup	,913	2		,991	,372	
		Physical Education and Sports Teaching	80	3,36	,71	Intragroup	135,903	295	,457 ,461			
		Sport Management	145	3,48	,61	Total	136,816	297				
	Communication with Faculty Members	Coaching Education	73	2,95	,94	Intergroup	9,757	2	4,879 ,833	5,857	,003*	3-1
		Physical Education and Sports Teaching	80	3,12	1,03	Intragroup	245,721	295				
		Sport Management				Total						

Participation in Scientific and Cultural Events	Sport Management	145	3,38	,83	Total	255,478	297			
	Coaching Education	73	2,72	,93	Intergroup	16,603	2			
	Physical Education and Sports Teaching	80	2,93	,88	Intragroup	230,055	295	8,302,780	10,645,000*	3-1 3-2
The Scale Wide	Sport Management	145	3,28	,86	Total	246,659	297			
	Coaching Education	73	3,04	,73	Intergroup	6,728	2			
	Physical Education and Sports Teaching	80	3,14	,71	Intragroup	136,503	295	3,364,463	7,270,001*	3-1 3-2
	Sport Management	145	3,38	,64	Total	143,231	297			

* $p < 0.05$; 1: Coaching Education; 2: Physical Education and Sports Teaching; 3: Sport Management

According to the results in Table 8, it was seen that there was a significant difference between the scores of the groups on the sub-dimensions of the service quality scale, namely academic appearance [$F(3,505) = .031$; $p < 0.05$], access [$F(4,638) = .010$; $p < 0.05$], empathy [$F(3,389) = .035$; $p < 0.05$] and the overall scale [$F(3,295) = .038$; $p < 0.05$]. As a result of the analyzes conducted to determine the source of the difference, it was determined that sports management students scored significantly higher than physical education and sports students in terms of their scores on these sub-dimensions.

When the scores obtained from the sub-dimensions of the Academic Engagement Scale are analyzed, it is seen that sport management students are statistically more likely than coaching education students in terms of the scores obtained from the interaction with faculty members sub-dimension [$F(5,857) = .003$; $p < 0.05$]; sport management students are statistically more likely than coaching education students in terms of the participation in scientific and cultural activities sub-dimension [$F(10,645) = .000$; $p < 0.05$] and the overall scale [$F(7,270) = .001$; $p < 0.05$], sports management students scored statistically significantly higher than coaching education and physical education students.

Table 9. Pearson Correlation Analysis According to Service Quality and Academic Engagement of Students Studying at the Faculty of Sport Sciences

Correlation	Service Quality Scale	Academic Engagement Scale
Service Quality Scale	1	.470**
Academic Engagement Scale	.470**	.000

** $p < 0.01$

When Table 9 is examined, as a result of the simple linear correlation analysis applied to reveal whether there is a relationship between the service quality and academic engagement scores of the students of the Faculty of Sport Sciences, it is concluded that there is a positive, moderately significant relationship ($r = 0.47$, $p < 0.01$).

Table 10. Linear Regression Analysis on Service Quality and Academic Engagement of Students Studying at the Faculty of Sport Sciences

The Scale	B	Se	β	t	P
Academic Engagement	1.903	.150		12.718	.001*
Service Quality	.388	.042	.470	9.165	.000*

$R = .470$; $R^2 = .221$; $F = 83.997$; * $p = 0.000$

When Table 10 is examined, it is seen that 22% of the academic engagement of the students studying at the Faculty of Sport Sciences is determined by service quality ($R=.470$; $R^2=.221$; $F=83.997$; $p=0.000$). As a result of the statistical inferences made for the data, it was seen that service quality made a significant contribution to the prediction of academic engagement.

DISCUSSION AND CONCLUSION

One of the factors that students who want to receive a university education consider when choosing a higher education institution is the service quality of the educational institution. Service quality plays a very important role both in choosing a higher education institution and in continuing studies at the same institution. The service quality of higher education institutions is considered as an important competitive factor. Moreover, it can be said that another factor influencing competition is academic engagement. In this direction, the research aims to investigate the perception of service quality and academic engagement of students studying in sports science faculties in relation to variables such as gender, age, department, class, type of education, playing sports, and coming from different provinces for university education. Another objective of the study is to show the relationship between perceived service quality and academic engagement, and to determine the predictive status of service quality for academic engagement.

In evaluating the research results primarily by gender, a statistically significant difference was found in academic appearance, the sub-dimension of the Quality of Service scale, and in class attendance, library, and access to resources, the sub-dimension of the Academic Engagement Scale. Female students scored higher than male students on both dimensions. When analyzing the results of the other sub-dimensions of the Quality of Service Scale and the Academic Engagement Scale, as well as the overall scale, it was statistically determined that there was no significant difference between the genders. During the literature review, it was found that there are many studies in both the national and international literature that support this research finding. Pike and Kuh (2005) examined the affiliation and intellectual development of college students as a function of some demographic variables (gender, ethnicity, desire to pursue a college degree, campus residency status) and concluded that academic engagement was significantly higher among female students. Similar results were also found when examining data from students at three public universities in Pakistan. In this study, female students were found to have a higher sense of belonging, higher locus of control, and perform better academically than male students (Sarwar & Ashrafi, 2014). It can be seen that studies on academic engagement are quite limited in the national literature. It was found that the studies on affiliation mostly focus on institutional affiliation. In a dissertation conducted by Kızılkaya (2021), the same result was found with this research. In both studies, there is a significant difference between female and male students on the dimensions of 'class participation, library, access to resources' in favor of female students. In addition, in a study to determine the degree of institutional engagement of academic staff, it was found that male participants scored higher and differed significantly, contrary to the research results. When analyzing the studies on perceptions of service quality with regard to the gender variable, it is found that there are studies that are consistent with this study. In another study, it was found that male students had lower perceptions of quality than female students (Karakaya et al., 2016). Similar to the results of this study, Bayrak (2007) concluded in his doctoral study of higher education institutions that female students' perceptions of service quality were significantly different from those of male students and had higher scores. In addition to the results of the research conducted with college students, similar results were also obtained in studies with students from lower age groups. In a study conducted by Orman

(2019) with a group of students aged 6 to 18, it was found that the sense of belonging differs in favor of female students. Although there are studies in the literature that support this research, there are studies in which males scored higher than females (Devebakan et al., 2019; Yokuş et al., 2016) and studies that concluded that there was no significant difference for both groups (Kaban, 2022; Topsakal & İplik, 2013; Yavuz & Gülmez, 2016).

According to another result, it was found that there was no significant difference in the scale of service quality and its sub-dimensions and the scale of academic engagement and its sub-dimensions in relation to the type of education. The literature found that studies examining perceptions of service quality and academic engagement as a function of type of education are quite limited. The literature search revealed that the study by Ataman and Adıgüzel (2019) and Kaban (2022) concluded that the affiliation of undergraduate or graduate education did not make a significant difference in the perception of quality. However, in another study, it was found that undergraduate students had higher perceptions of service quality than graduate students (Altaş, 2006).

Another result of the study is that a statistically significant difference was found between the access and empathy sub-dimensions of the service quality scale and the service quality scale in general in relation to the variable "playing sports". This shows that in both sub-dimensions and in the whole scale, those who play sports score higher than those who do not play sports. In contrast to this study, the studies by Kaban (2022) and Yavaşer and Yurtsizoğlu (2022) found that athletes' perceptions of service quality are low. It is suggested that this is due to the high expectation of service quality.

When examining the results related to the variable of origin from another province, it was found that there was a significant difference in terms of academic appearance and access (sub-dimensions of the Quality of Service scale) and participation in scientific and cultural activities and academic engagement (sub-dimensions of the Academic Engagement Scale). It was found that students who come from outside the province to pursue higher education studies scored higher than those who come from within the province. It is believed that the reason for this is that students from other provinces participate more in cultural activities to socialise. No source on this research result was found in the literature review.

A significant difference was found in the age variable. Thus, it was found that students in the 17-19 age group received higher scores than students in the 20-22 and 23-25 age groups. In contrast to this study, there are also studies that conclude that as the age of students increases, their perception of the service quality of their universities also increases (Bayrak, 2007). When analyzing the results for the class level variable, which is directly proportional to age, it can be seen that the results are parallel and mutually supportive. It was found that there is a significant difference between the results of the sub-dimensions of the service quality scale, namely academic demeanor, empathy, image, administrative demeanor and the overall scale. It was found that 1st grade students scored significantly higher than 2nd and 4th grade students on academic appearance, access, empathy, and total scale scores. Contrary studies were found in the literature (Kaban, 2022). In another study, it was found that there was no significant difference between perceptions of service quality and grade levels (Karakaya et al., 2016). When analyzing scores for faculty interaction, one of the sub-dimensions of the Academic Engagement Scale, it was found that students in the 4th grade were more likely to be engaged in academic activities. The results of this study show that as age and grade level increase, perceptions of service quality decrease, but academic engagement increases. In other words, age and grade level are directly proportional to academic engagement and inversely proportional to perceptions of service quality.

The results of the student ratings by department show that there is a significant difference between the ratings in the sub-dimensions of the Quality of Service, Academic Appearance, Empathy scale and the overall scale. It was found that students in the Sport Management Department scored higher than students in the Physical Education and Sport Department. In addition, it was concluded from the results of the sub-dimension Interaction with Lecturers that the students of the Department of Sport Management scored statistically significantly higher than the students of the Department of Physical Education; and it was concluded from the results of the sub-dimension Participation in Scientific and Cultural Activities and the Total Scale that the students of the Department of Sport Management scored statistically significantly higher than the students of the Department of Physical Education and Sport. Similarly, in a study conducted by Kaban (2022), it was found that the perception of service quality by the students of the Department of Sport Management was higher than the students of other departments. The reason for this result was that the social and cultural activities conducted in schools were more satisfying to the students of sport management department because the teaching content of sport management department was insufficient in terms of sport and socialization. This result supports the research.

Finally, simple linear correlation and regression tests were conducted to determine if there was a relationship between service quality and academic engagement of students in the School of Physical Education, and if so, the direction of that relationship. The results of these tests suggest that there is a positive and moderately significant relationship between service quality and the academic engagement scores of the Faculty of Sport Sciences students. In addition, it was found that 22% of the academic engagement of the students of the Faculty of Sport Sciences was determined by the service quality and the service quality made a significant contribution to the prediction of the academic engagement. As can be seen from the result, high perception of service quality has a positive effect on academic engagement. Related literature studies support the research results (Stodnick & Rogers 2008; Ilgan et al. 2013; Kutlu Guendoğdu & Asan, 2019). In these studies, students' perceptions of high service quality were found to lead to high levels of academic engagement. In addition, Kızılkaya (2021) found in his doctoral study that students' academic engagement decreased the lower their perception of service quality was. These results support the research. In another study conducted with undergraduates, parallel to this finding, it was found that perception of organizational image was a significant predictor of sense of institutional belonging (Orman, 2019).

Recommendations and Limitations

The limitation of the college and the faculty where the data and information in the study were collected to the Faculty of Sports Sciences of Karamanoğlu Mehmetbey University prevents the generalization of the obtained results. However, despite these limitations, the study can provide an impression of the perception levels of students in the Faculty of Sports Sciences and serve as a reference for future studies. Studies can be conducted at different universities, in different departments and samples, and in different cultures. In order for universities to develop demand strategies, marketing strategies should be developed to increase student affiliation and identification and, indirectly, perceptions of quality. This study is limited to five dimensions of service quality and three affiliation variables that affect the academic engagement of athletic department students. Future studies may examine the effect of different variables in explaining academic engagement. In future studies, it may be useful to examine the impact of college-provided services on other positive organizational behaviors and attitudes (faculty engagement, satisfaction, academic performance, motivation, etc.), taking into account the impact of college-provided services on affiliation.

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Author(s)' statements on ethics and conflict of interest

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