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Araştırma Makalesi
Research Article

Exploring the Mediating Role of Lecturer Competence in the Relationship Between Service Quality and Academic Engagement in the Turkish Higher Education

Türk Yükseköğretiminde Hizmet Kalitesi ile Akademik Katılım Arasındaki İlişkide Öğretim Elemanı Yeterliliğinin Aracılık Rolünün Araştırılması

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Abstract: The higher education sector has witnessed significant changes in recent years, with an increasing emphasis on service quality, lecturer competence, and academic engagement as important determinants of academic success. This research aims to explore the mediating role of lecturer competence between service quality and the academic engagement of students in the Turkish higher education. The relational survey model was used to determine the relationships between service quality, lecturer competence, and academic engagement. A conceptual model regarding service quality, academic engagement, and lecturer competence was developed in this regard. To test the model, appropriate data were collected and analyzed. The findings indicate that the quality of service in higher education is directly related to academic engagement. There is a positive and significant relationship between service quality and lecturer competence. Similarly, a positive and significant relationship exists between lecturer competence and academic engagement. Furthermore, lecturer competence is a mediating factor in the relationship between service quality and academic engagement.

Keywords: Service quality, higher education, academic engagement, lecturer competence

Özet: Yükseköğretim sektörü son yıllarda önemli değişimlere sahne olmuş; hizmet kalitesi, öğretim elemanı yeterliliği ve akademik bağlılık gibi unsurlar, akademik başarının belirleyicileri olarak giderek daha fazla önem kazanmıştır. Bu araştırma, Türkiye'deki yükseköğretimde hizmet kalitesi ile öğrencilerin akademik bağlılıkları arasındaki ilişkide öğretim elemanı yeterliliğinin aracı rolünü incelemeyi amaçlamaktadır. Hizmet kalitesi, öğretim elemanı yeterliliği ve akademik bağlılık arasındaki ilişkileri belirlemek için ilişkisel tarama modeli kullanılmıştır. Bu kapsamda, hizmet kalitesi, akademik bağlılık ve öğretim elemanı yeterliliğine ilişkin kavramsal bir model geliştirilmiş ve bu modeli test etmek amacıyla uygun veriler toplanarak analiz edilmiştir. Bulgular, yükseköğretimde hizmet kalitesinin akademik bağlılıkla doğrudan ilişkili olduğunu göstermektedir. Hizmet kalitesi ile öğretim elemanı yeterliliği arasında pozitif ve anlamlı bir ilişki bulunmuştur. Benzer şekilde, öğretim elemanı yeterliliği ile akademik bağlılık arasında da pozitif ve anlamlı bir ilişki vardır. Ayrıca, öğretim elemanı yeterliliği, hizmet kalitesi ile akademik bağlılık arasındaki ilişkide aracı bir değişken olarak rol oynamaktadır.

Anahtar Kelimeler: Hizmet kalitesi, yükseköğretim, akademik bağlılık, öğretim elemanı yeterliliği

1. Introduction

Higher education institutions (HEIs) play a substantial role in equipping students with the qualifications they need to survive in knowledge-based societies. Students continue their higher education studies to attain the knowledge, skills, and competencies to use in their study or work contexts (European Commission, 2018). In this respect, HEIs have a crucial role in training qualified human resources that constitute the triggering force of development in close cooperation with economic, political, social, cultural, and technological systems. They are supposed to train a sufficient number of qualified human resources needed by countries (Çınkır & Yıldız, 2018). Therefore, HEIs deal with various issues, including quality assurance systems, recognition, and graduate employment (Wells, 2018). Quality assurance

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systems have emerged to enhance the quality of higher education (Yıldırım & Aslan, 2021). The quality matter in HEIs has been a global action plan via the Bologna Process. One of the objectives of this process is to ensure quality teaching and learning in HEIs (European Commission, 2024). Students' perceptions of the quality of services they receive from higher education institutions depend on factors such as physical infrastructure, the teaching process carried out by lecturers and their ability to transfer knowledge, the holistic development that academic programs encourage in students, facilities, teaching materials, lecturer competencies, compliance with the curriculum and the student's willingness to engage extracurricular activities, and the student's orientation towards their professional future (Lagunas, Ramírez & Téllez, 2016). Quality teaching and learning can significantly contribute to students' acquisition of knowledge, skills, and competencies concerning their field. It is declared that the Educational Ministers responsible for higher education recommended supporting quality and innovation in teaching and learning in the 2020 Rome Communique. In the Communique, three interconnected thematic areas were identified: system-level policies and measures, student-centered learning, and initiatives fostering continuous enhancement of teaching (EHEA, 2020). It can be deduced from this policy document that quality teaching and learning in HEIs are crucial to enabling the students to gain these qualifications. Therefore, it is highly important to determine the current status of teaching and learning services in HEIs to enhance the quality of teaching and learning. Teaching and learning opportunities determine the quality of service in higher education. Service quality is primarily conveyed to students by lecturers. The teaching competencies of lecturers determine how students perceive the teaching service quality. Competent lecturers with a high level of teaching competence can foster student engagement by increasing the quality of teaching and learning. Thus, it can be considered that service quality, lecturer competencies, and academic engagement in higher education are interrelated variables.

Quality deals with satisfying users and meeting their needs via services or products. It mainly concerns acquiring better outcomes and improving processes (Yıldırım & Aslan, 2021). When it is used in the field of education, it involves conducting training services in line with the educational standards, making stakeholders, especially students and the parents, satisfied with the training, and ensuring the students implement what they have acquired in real life (Özdemir, 2015; Yıldırım, 2018). As educational policymakers and researchers have attached great importance to the quality of teaching and learning in higher education, the European Association for Quality Assurance in Higher Education (ENQA) has been founded to generate a higher education network to ensure harmony and coordination among the quality development applications. The Standards and Guidelines for Quality Assurance (ESG) were determined by ENQA. The main aspect of these standards consists of the student-centered approach to teaching and learning (ENQA, 2015). In the policy documents released by ENQA and the European Commission, teaching and learning processes are understood to significantly enable students to gain the necessary skills they need in their study or work contexts. To what extent they get, the skills are closely related to quality teaching and learning processes in which they are engaged.

2. Conceptual Framework

This study aims to explore the mediating role of lecturer competence between service quality and academic engagement in higher education. For this purpose, a conceptual framework was developed regarding service quality, academic engagement, and lecturer competence. Service quality in higher education, students' academic engagement, and lecturer competence variables have been included to examine the quality of teaching and learning in Turkish higher education profoundly and extensively.

2.1. Service Quality in Higher Education

Service quality in HEIs is a multi-dimensional concept and, therefore, includes many services such as infrastructures of HEIs, their characteristics, capacities to meet the societies' demands, and services provided to students (Bektaş & Ulutürk Akman, 2014). Owlia and Aspinwall (1996) stated that the service quality dimensions in higher education include reliability (correctness, accurateness, and updated education), responsiveness (lecturers' willingness to help students), understanding customers (understanding students and their needs), access (lecturers' availability for guidance and advice), competence (lecturers' theoretical, practical knowledge and presentation skills), courtesy (lecturers' emotive and positive attitudes to students), communication (lecturers' and students' communication in class), credibility (trustworthiness of institution), security (confidentiality of the information), tangibles (availability of facilities and equipment), performance (students' required main knowledge and skills), completeness (supplementary knowledge and skills), flexibility (applicability of the acquired knowledge and skills to other fields), and redress (an institution's handling its customers' complaints and solving their problems). Yidana, Bawa, Gariba, and Adabuga (2023) showed that the quality of service experi-

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enced by students significantly influences their satisfaction levels directly. Students' satisfaction levels, in turn, significantly and positively influence their loyalty. They also demonstrated that the service quality experience of students has a significant and positive indirect effect on loyalty through satisfaction. Can (2021) conducted a study to determine university students' perceptions of quality indicators in higher education in the context of Türkiye. According to the research findings, the most important quality indicators in higher education are as follows; the education service provided for students with disabilities, the satisfaction levels of students, the importance given to students and support for student success by the teaching staff, the use of new educational technologies in teaching and learning processes, and effective communication between the teaching staff and students. According to the research results, to improve the quality in higher education, there is a need for studies on facilities, libraries and technology centers, management, teaching and learning processes, scientific and social activities, and students and teaching staff. It's declared that service quality is a critical factor in determining students' satisfaction and engagement within the higher education context.

Several measurement tools have been implemented to measure the quality of service in higher education. One of those tools is SERVQUAL, which determines the customers' overall service examination based on the gap between expected and perceived service quality (Angell, Heffernan & Megicks, 2008). However, it is criticized severely in many aspects. To illustrate, Çınkır, Yıldız, and Kurum (2021) have argued that SERVQUAL is not appropriate for the higher education structure in the sense that students should not be regarded as customers but stakeholders. So, the scales should be directly concerned with the quality of higher education as a public sphere. From this perspective, they developed the service quality scale in higher education. This scale includes the sub-dimensions of academic services, administrative services, and campus facilities. Another scale used to measure service quality in higher education is the SERPERF developed by Cronin and Taylor (1992). This scale is performance-oriented. It measures perceived service quality by evaluating current performance. The Performance-based Higher Education service quality scale (PHed), developed by Sultan and Wong (2010), consists of the dimensions of reliability, impact, capability, efficiency, competence, assurance, emergency management, period, and syllabus. The Higher Education Service Quality (HiEdQUAL) scale developed by Annamdevula and Bellamkonda (2012) includes dimensions of teacher and course content, administrative services, academic facilities, campus infrastructure, and support services. Zineldin et al. (2011) defined service quality in higher education with the sub-dimensions of object, process, infrastructure, interaction, and environment quality according to the 5Q model they developed.

2.2. Academic Engagement

The engagement concept is a broad phenomenon. It covers the academic and social aspects of student life. It determines how well students can integrate their study style into their university's learning environment to promote the most effective learning. It also includes the quality of relationship between students and institutions. It describes the internal quality of effort and concentration to conduct effective learning (Kızılkaya & Corbin, 2012). Student engagement is a sociological and psychological concept (Kahu, 2013). It is defined as "the quality and quantity of students' psychological, cognitive, emotional and behavioral reactions to the learning process as well as to in class/out of class academic and social activities to achieve successful learning outcomes" (Gunuc & Kuzu, 2015, p.588). Engaged students have a natural drive to motivate themselves to attend courses and engage in academic activities and tasks. They have a sense of curiosity, inquire, and take pleasure in questioning difficulties in acquiring knowledge. Energetic and committed students are deeply engaged in their academic pursuits, leading them to be fully dedicated to their studies. Thus, they become successful (Salanova et al., 2010). When students engage in classes and try to learn effectively, they gain the appreciation of their lecturers. From this point of view, it can be inferred that student engagement and lecturer competence are related.

Student academic engagement has three dimensions: behavioral, emotional, and cognitive (Fredricks, Filsecker, & Lawson, 2016). The behavioral dimension arises from the idea of engagement and refers to the participation of students in academic, social, or out-of-class activities. The emotional dimension is based on a psychological approach and deals with an internal psychosocial process that develops over time and changes in density. It is related to students' feelings concerning different aspects of education, such as teachers and classmates. The cognitive dimension is the level of students' active interest and investment in educational processes, including having thought and purpose and being eager to make a necessary effort (Finn & Voelkl, 1993; Fredricks, Blumenfeld & Paris, 2004; Kahu, 2013). According to Baron and Corbin (2012), the key to engagement is student experience.

Student academic engagement is a concept in which all behavioral, emotional, and cognitive dimensions are intertwined and integrated. A significant part of the scales

developed to measure the level of student academic engagement in higher education deal with all aspects of engagement (Maroco, Maroco, Campos & Fredricks, 2016; Sun & Rueda, 2012; Gunuc & Kuzu, 2015). The level and dimensions of student academic engagement may vary according to educational levels. Schaufeli et al. (2002) developed a scale to determine the dimensions of burnout and student academic engagement in the context of higher education. They determined the dimensions of student engagement such as vigor, dedication, and absorption. Kızılkaya and Doğan (2022) examined student academic engagement at the higher education level. The sub-dimensions of engagement involve "participation in the course, library, resource access", "communication with lecturers" and "participation in scientific and cultural activities".

2.3. Lecturer Competence

Teacher effectiveness is a multi-dimensional issue. It consists of three factors, namely respect for students, the ability to challenge students, organization, and presentation skills (Patrick & Smart, 1998). It is a key issue in higher education that importance should be paid to the quality of teaching and the pedagogical development of academic staff (Kobayashi et al., 2017). Therefore, it is stressed in the European Higher Education Area in the 2024 Bologna Process Implementation Report (European Commission, 2024) that academics with a teaching role should receive training in teaching. To enable students to gain the knowledge, skills, and competencies specified in the European Qualification Framework and the Turkish Qualification Framework, academic staff should generate course plans, prepare teaching and evaluation activities for learning outcomes in these plans, and ensure active participation of the student in the teaching process (CoHE, 2010). In this respect, the lecturing competencies of academic staff or lecturers play a significant role in the quality of teaching and learning processes.

One factor that may play a crucial role in mediating the relationship between service quality and academic engagement is lecturer competence. Lecturer competence encompasses various aspects, such as subject knowledge, pedagogical skills, and the ability to effectively communicate and engage with students. Highly competent lecturers may be able to enhance students' perceptions of service quality, which in turn can lead to increased academic engagement and improved learning outcomes. Lecturer competence refers to the lecturers' skill and proficiency in effectively delivering lectures in the classroom (Opatha, 2020). Competent lecturers have a comprehensive understanding of both learning and teaching, encompassing all aspects. They have communication skills, social connections, moral integrity, and developed individual attributes (Hanapi & Nourdin, 2014). Abdul Latip, Nawaz & Ramasamy (2020) examined the effect of lecturers' competencies on student satisfaction and loyalty, incorporating four exogenous variables: knowledge and credentials, pedagogical knowledge and skills, industry experience, and lecturer motivation. They found that lecturers' knowledge and credentials, industry experience, and motivation all significantly positively correlate with student satisfaction. Conversely, the motivation of lecturers was the only factor identified as having beneficial impacts on student loyalty to the institution. Students' satisfaction was discovered to mediate the connections between knowledge and credentials, industry experience, and lecturers' motivation concerning student loyalty. The results of the research also highlighted the significance of providing and upholding high service quality by the institution, accomplished mainly through skilled lecturers, as this will foster student loyalty and ensure institutional sustainability. Thus, it is understood that lecturer competence is a broad concept that is not limited to knowing a certain subject. Lecturers with a high level of competence have a deep knowledge of the subject as well as the ability to present it effectively. They ensure students have a good understanding of the topics and communicate effectively. Guide students on their social and psychological development. Students who understand the course well can be satisfied and engage more. A competent lecturer has a high level of ability to engage students in the lecture.

Various measurement tools have been developed to measure lecturer competence. In the scale developed by Doğanay, Yeşilpınar-Uyar, Dinçer, and Karaçoban (2021), the sample consists of higher education students. This instrument has four dimensions, including preparation for instruction, effective presentation, student-centered instruction and evaluation, and in-class and out-of-class communication. The preparation for instruction dimension refers to the lecturer's ability to bring the course to a sufficient level in terms of content and material. Preparation process for the course, preparing a course plan following the learning outcomes, compiling and organizing the course content from different scientific sources, and updating it by considering the characteristics of students. The effective presentation dimension is that the lecturer conveys the course content in a way that persuades and informs students. It includes the lecturer's ability to prepare effective presentations, establish connections that facilitate students' understanding of knowledge, use appropriate tools, equipment, and materials, and integrate theoretical knowledge with practical studies. In the dimension

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of student-centered instruction evaluation, the learning and development of students are taken into account. The lecturer adopts a student-centered teaching approach, encourages the active participation of students, uses process-based assessment methods, and provides feedback to students. The dimension of communication in and out of the classroom is expressed as the ability to establish effective social and pedagogical relations with students.

Based on the literature review, it can be deduced that service quality, lecturer competence, and academic engagement in higher education are interrelated variables. The work opportunities provided by higher education institutions directly affect service quality. Lecturers in institutions with good work opportunities can provide more effective teaching. Lecturers who aim to provide quality teaching need to develop their lecturing competencies. The courses of lecturers with high teaching competencies are more popular with students. If students satisfy their learning needs, they show interest in the course and engage. Therefore, service quality directly affects the competencies of lecturers and student academic engagement. Lecturers' competencies act as a bridge in the perception of service quality by students. Because service quality reaches students most effectively through course quality.

As a matter of fact, substantive attention is paid to the quality assurance system concerning the Turkish higher education system. In this regard, the Higher Education Quality Council of Türkiye was founded in line with Law No. 2547 on Higher Education, Additional Article 35 (18/6/2017-7033/18 article). The Council is a public entity with administrative and financial autonomy. It aims to evaluate the quality levels of education and research activities in line with national and international quality standards (YÖKAK, 2017). The quality assurance system of higher education is monitored through internal and external quality assurance.

The main objective of this study is to explore the mediating role of lecturer competence in the relationship between service quality and academic engagement. As a result of the literature review, the following hypotheses were developed.

H1. Service quality in higher education is positively and significantly related to students' academic engagement.

H2. Service quality in higher education is positively and significantly related to lecturer competence.

H3. Lecturer competence is positively and significantly related to students' academic engagement.

H4. Lecturer competence significantly mediates the relationship between service quality in higher education and students' academic engagement.

2.4. Model of the Study

Within the scope of the research, the model in ▶**Figure 1** was developed. According to this model, service quality is the independent variable, academic engagement is the dependent variable, and lecturer competence is the mediator variable. Hypotheses denoted by H1, H2, H3 and H4. Relations between variables are demonstrated by paths 1, 2, 3, and 4. Path 4 is the indirect relationship between service quality and academic engagement. In the model, as service quality increases, both lecturer competence level and student academic engagement level increase as well. Lecturer competence plays a mediator

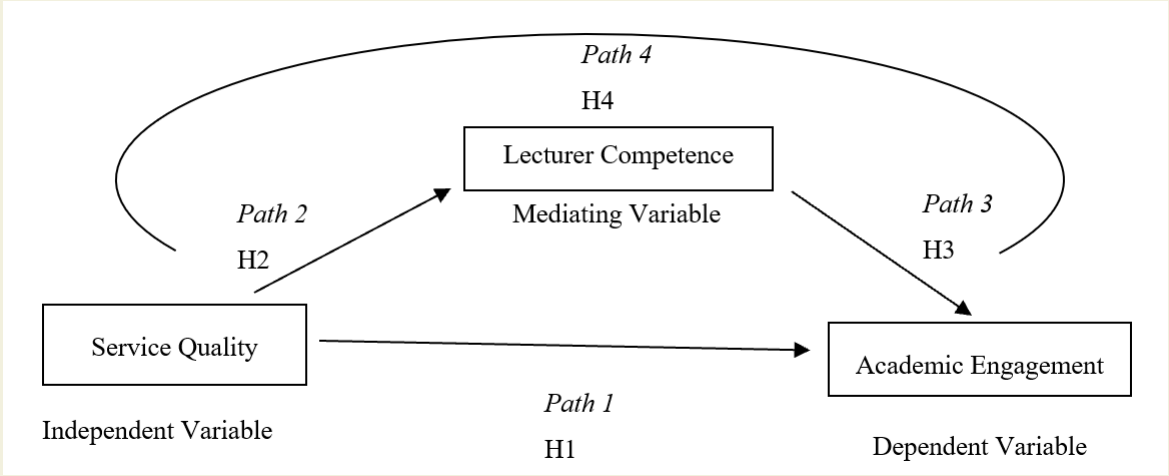

Figure 1. Model of the study

role between service quality and academic engagement. The data were collected and analyzed to test this model.

3. Method

3.1. Research Design

The study was carried out by the correlational survey model to determine the relationships between service quality in higher education, lecturer competencies, and students' academic engagement. This model allows researchers to understand the direction of change between two or more variables (Cohen, Manion, & Morrison, 2000).

3.2. Population and Sample

At the first step we got permission from the scale owners. Then applied for the ethics approval. The ethics consent letter was received from Selçuk University Ethic Commission on 23 May 2023 (numbered as E-16343714) to conduct the research. The population of the research consists of 27981 undergraduate students attending a state university in Türkiye (Council of Higher Education, 2022). According to the 95% confidence interval, the lower limit for the sample size of the study is 379 (Gürbüz & Şahin, 2014). The research sample included 386 undergraduate students studying at the state university in the 2022-2023 academic year. During the implementation process, 386 participants could be reached. The number of samples is sufficient when the 95% confidence interval criterion is considered (Gürbüz & Şahin, 2014). The students were selected based on simple random sampling. In ▶Table 1, the descriptive statistics for the participants concerning the demographic variables are provided.

▶**Table 1.** Descriptive statistics for the participants concerning the demographic variables

Variables		N	%
Gender	Female	302	78.2
	Male	84	21.8
Age	19 and under	65	16.8
	20-22	237	61.4
	23 and over	84	21.8
Grade	1st grade	41	10.6
	2nd grade	104	26.9
	3rd grade	32	8.3
	4th grade	209	54.1
Total		386	100

As seen in Table 1, the proportion of women is higher than men at 78.2%. According to the age variable, the group with the highest rate is "20-22 years old" with 61.4%. In terms of grade variables, the group with the highest rate is 4th-grade students with 54.1%.

3.3. Instruments

3.3.1. Service Quality Scale

The Service Quality in Higher Education Scale (SQHES) developed by Çınkır, Yıldız, and Kurum (2021) was used to determine the service quality in higher education. It is a five-point Likert-type scale with 29 items and three dimensions, namely, academic services, administrative services, and campus facilities. Confirmatory factor analysis (CFA) was conducted to confirm the factor design of the instrument. As a result of the analysis, t values were determined to be significant at the .01 level. CFA values for SQHES were determined as P=.00, χ^2/sd = 1.89, RMSEA =.04, SRMR=.04, GFI = .91, NNFI = .94, CFI = .95. The fit index values regarding the results of CFA were at the desired levels. Regarding the reliability analysis of the study, an item analysis was carried out using item-total correlation. Then, the reliability analysis of the scale was conducted using Cronbach's Alpha. Item-total correlations for all items in the scale ranged between .37 and .73. The scale items can distinguish individuals as well. Cronbach's Alpha internal consistency coefficient was found to be .94, which indicated its reliability.

3.3.2. Academic Engagement Scale

The Academic Engagement Scale (AES) developed by Kızılkaya and Doğan (2022) was used to identify students' academic engagement. It is a five-point Likert-type scale with 25 items and three dimensions, namely class attendance, library and resource access, communication with faculty members, and participation in scientific and cultural events. CFA was implemented to verify its factor design. As a result of the analysis, t-values were determined to be significant at the .01 level. Therefore, all indicators were included in the model. CFA values for AES were calculated as P=.00, χ^2/sd = 1.90, RMSEA =.04, SRMR=.06, GFI = .92, NNFI = .94, CFI = .95. The fit index values concerning the results of CFA were at the desired levels. Cronbach's Alpha internal consistency coefficient was calculated as .90, which verified its reliability.

3.3.3. Lecturer Competence Scale

The Assessment of Lecturer Competence Scale (ALCS) developed by Doğanay, Yeşilpınar-Uyar, Dinçer, and Karaçoban (2021) was employed to determine the lecturer competencies. It is a five-point Likert-type scale with 38 items and four dimensions, including prepara-

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tion for instruction, effective presentation, student-centered instruction and evaluation, and in-class and out-of-class communication. CFA was conducted to affirm its factor design. The results revealed that t-values were significant at the .01 level. Therefore, all indicators were included in the model. CFA values for AES were calculated as P=.00, χ^2/sd = 1.89, RMSEA =.04, SRMR=.04, GFI = .90, NNFI = .94, CFI = .95. The fit index values of the results of CFA were at the desired levels. Cronbach's Alpha internal consistency coefficient was calculated as .97, which meant that it was reliable.

3.4. Data Collection and Analyses

The data collection instrument was applied in the spring semester of the 2023 academic year. In the data analysis, it was first examined whether the data met the normality assumption. In this regard, standard deviation, skewness, and kurtosis coefficients, and mean, median, and mode values were analyzed. The standard deviation, skewness, and kurtosis values were calculated as .60, -.75, 1.69 in SQHES; .54, -.32, .56 in AES and .64, -.59, .95. in AFMICS, respectively. Kurtosis and skewness values in the study varied between ±2, which indicated that the data set had a normal distribution (George & Mallery, 2010). In addition, mean, median, and mode values were 3.43, 3.54, and 4.00 in SQHES, 3.13, 3.16, and 3.60 in AES, and 3.49, 3.55, and 4.00 in AFMICS, consecutively. The fact that these values in the study are close to each other also shows that the data set is normally distributed (Hair, Ringle & Sarstedt, 2011). In this context, the Pearson product-moment correlation coefficient was used to determine the relationships between the values derived from the scales. To determine the mediating role of the model tested in the research, regression analysis based on the Bootstrap method was employed. This method gives more reliable results than Baron and Kenny's (1986) traditional method and the Sobel test (Hayes, 2018; Zhao, Lynch, and Chen, 2010). Analyses were conducted through Process Macro, developed by Hayes (2018). In the analysis, 5000 resampling options were preferred with the Bootstrap technique. In mediating effect analyses conducted with the Bootstrap technique, zero (0) value should not be included in the 95% confidence interval (CI) ones (MacKinnon, Lockwood & Williams, 2004). The data was tested with IBM SPSS 26, Process Macro 4, and AMOS 22 package programs. In the interpretation of the results, the .05 significance level was taken.

4. Findings

Descriptive statistics of the scales in the research and the relationships between the variables were analyzed. The results are indicated in ▶**Table 2**.

▶**Table 2.** Descriptive statistics of the scales and correlation coefficients of the variables

Variables	Descriptive statistics		Correlation coefficients		
		S.S.	1	2	3
SQHES	3.52	.60	---	.39*	.75*
AES	3.14	.54		---	.46*
AFMICS	3.50	.64			---

*p< .01

As seen in ▶**Table 2**, the students' perceptions of the service quality in higher education ($\bar{x}$ = 3.52) and lecturer competence ($\bar{x}$ = 3.50) are high. It is understood that their perception of their academic engagement ($\bar{x}$ = 3.14) is at a medium level. In addition, there is a high relationship between service quality in higher education and lecturer competence (r = .75, p <.01). It is observed that there are moderate positive significant relationships between service quality in higher education and academic engagement (r = .39, p<.01), and between academic engagement and lecturer competence (r = .46, p< .01). The regression analysis results regarding the mediation test are provided in ▶**Table 3**.

▶**Table 3.** The regression analysis results regarding the mediation test

Predictor variables	Dependent variables			
	Lecturer Competence		Academic Engagement	
	B	S.E.	B	S.E..
Service quality	.803***	.036	.093	.062
Lecturer competence	---	---	.321***	.057
Fixed	.674***	.129	1.685***	.151
	R^2 = .562		R^2 = .212	
	F(1; 384) = 492.868; p< .001		F(2; 383) = 51.778; p< .001	

Note: *p< .05, **p< .01, ***p< .001; *S.E.*: Standard Error. Unstandardized beta coefficients (b) were reported.

The regression analysis based on the Bootstrap method was conducted to test whether lecturer competence has a mediating role in the effect of service quality in higher education on students' academic engagement. The results of the regression analysis are shown in ▶**Table 3**. It is understood that service quality in higher education has a positive and significant relationship with students' academic engagement (Path 1, a = .351, 95% CI [.2669, .4346], t = 8.2232, p <.01). Hence, the H1 hypothesis on path 1 was supported. According to the H2 hypothesis test results of the research, it is seen that service quality in higher education has a positive and significant relationship with lecturer competence (Path 2, b = .803, 95% CI [.7322, .8745], t = 22.2006, p<.01). Therefore,

the H2 hypothesis on path 2 was supported. Lecturer competence has a positive and significant relationship with the student's academic engagement (Path 3, c = .321, 95% CI [.2072, .4350], t = 5.5411, p<.01). Thus, the H3 hypothesis on path 3 was supported.

Whether service quality in higher education has an indirect effect on students' academic engagement was determined according to the confidence intervals in the Bootstrap technique. Accordingly, it has been identified that the indirect effect of service quality in higher education on students' academic engagement is significant, and therefore, lecturer competence mediates the relationship between service quality in higher education and students' academic engagement. (Path 4, d = .258, 95% CI [.1541, .3650]). Thereby, the H4 hypothesis on path 4 was supported. It can be stated that the teaching competencies of lecturers partially mediate the relationship between service quality in higher education and students' academic engagement (Hayes, 2018). In addition, the regression analysis results for the mediation test are shown on the model in ▶**Figure 2**.

5. Discussion, Conclusion & Suggestions

In this study, we aimed to examine the mediating role of lecturer competence in the relationship between service quality in higher education and students' academic engagement in the Turkish context. According to the conceptual model, it is revealed that service quality in higher education is directly related to students' academic engagement. Furthermore, lecturer competencies play a mediating role between these two variables. An increase in service quality leads to an increase in academic engagement. Lecturer competencies affect academic engagement because they are a component of service quality. Thus, they play a mediating role. The research findings confirm this model.

First, it is seen that service quality in higher education has a positive and significant relationship with students' academic engagement. This result is also consistent with some research findings on similar subjects. Snijders, Wijnia, Rikers, and Loyens (2020), based on data obtained from higher education students, determined that the quality of students' relationships with their faculty has an impact on their engagement. In this direction, Amoako, Ampong, Gabrah, de Heer, and Antwi-Adjei (2023) conducted research to explore the determinants of student satisfaction. The outcomes of the study showed there was a positive and significant relationship between satisfaction, academic services, and administrative services. Since academic engagement is related to satisfaction, these results can be considered to support the first hypothesis of our study. It is an expected result that there are significant relationships between service quality in higher education and students' aca-

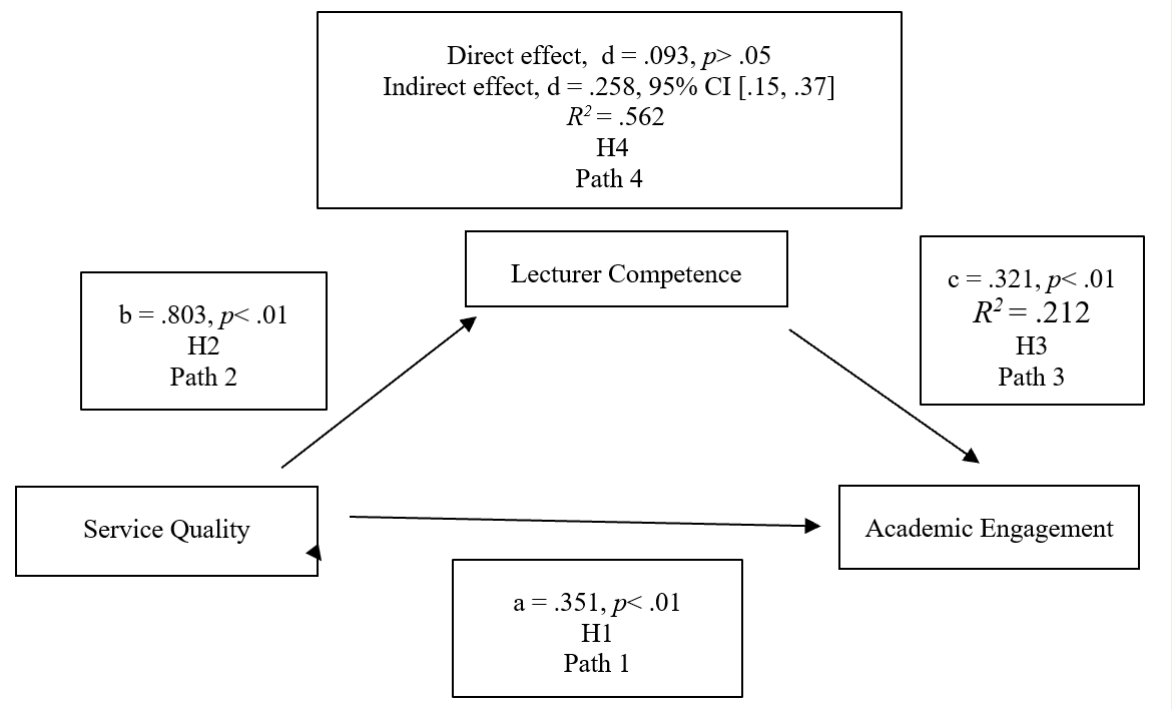

Figure 2. The Mediating Role of Lecturer Competence in the Relationship between Service Quality in Higher Education and Students' Academic Engagement (N = 386).

https://doi.org/10.32329/uad.1706160

demic engagement. Because students who are satisfied with the services provided by their institution also confirm that the services are of high quality and meet their expectations. Therefore, HEIs must provide quality educational services.

Second, it's found that service quality in higher education has a positive and significant relationship with lecturer competence. The increase in service quality means an increase in lecturing competence. The quality of the study and research opportunities provided by the higher education institution also leads to the faculty members providing quality education and thus improving their lecturing competence. In this context, Hansen et al. (2000) developed a reliable tool for assessing study units or modules in higher education institutes. Their research showed that the quality of teaching by the lecturer significantly affects how students perceive the quality of these modules. Similarly, Hill et al. (2003) discovered that the lecturer's quality is among the key elements for delivering education of high standard. Hence, if lecturers know what their students want, they can adjust their actions to meet these expectations. This adjustment can lead to better service quality and increased engagement among students. Therefore, higher education institutes need to increase the service quality by providing good working opportunities to lecturers to enable them to provide higher quality teaching and thus improve their lecturing competence. Universities should improve the quality of lecturers through competence development, welfare provision, and adequate institutional support (Farida, 2023). On the other hand, student participation in management and holding seminars to discuss and implement innovations from a student perspective will increase the quality of services students receive from higher education institutions (Alvarado, Morales & Aguayo, 2016).

Third, lecturer competence has a positive and significant relationship with academic engagement. It is statistically evident that both lecturers' competence and students' academic engagement are related positively and significantly. The more competent the lecturer is, the more effective the engaging behavior of the student is. Students who are satisfied with the course are expected to engage more in that course. Hence, it is obvious that satisfaction and engagement levels are related to each other. As concluded by Ali and Hassan (2018), teachers play an important role in changing barriers in the academic and social spheres by creating opportunities to increase student engagement through planned strategies by applying effective learning theories. Therefore, teacher support is important in influencing students' academic engagement, which indirectly contributes to students' success in school. A study conducted by Zhao (2003) found that student satisfaction with the course is based on course quality, teacher and peer interaction, and support services. The result of our study is supported by the results of previous studies, which found a positive and significant effect of lecturing competence on student satisfaction (Carter & Yeo, 2016; Osman & Saputra, 2019).

Fourth, the indirect effect of service quality in higher education on students' academic engagement is significant, and therefore, lecturer competence mediates the relationship between service quality in higher education and students' academic engagement. The aim was to explore the mediating role of lecturer competence on the relationship between service quality and students' academic engagement. The results of the mediation analysis statistics showed that lecturer competence greatly and entirely facilitated the relation between service quality and the engagement of students. Lecturer competence acts as a crucial, complete mediator in the connection of service quality and student academic engagement. Because lecturers serve as facilitators for both traditional education and innovation using digital technologies to increase learning efficiency and expand students' access to knowledge (Obadimeji & Oredein, 2023), this mediating role is positively related to student academic engagement. Accordingly, promoting technologies and innovation as teaching resources and continuously evaluating and developing indicators of curriculum and teaching development are important for future generations (Avalos & Sanchez, 2016).

In conclusion, the conceptual model was confirmed by the findings we obtained and the findings of similar studies in relevant literature. Accordingly, there is a positive relationship between service quality in higher education and students' academic engagement. Since lecturer competence is also a component that constitutes service quality, it has a mediating role between these two variables. If the administrators and policy makers of higher education institutions consider these results in literature and make arrangements, this will positively contribute to the increase in service quality in higher education, the development of lecturer competencies, and the increase in academic engagement levels. Thus, the improvement of administration in general, aiming to include the opinions of lecturers and their participation in the organization, could be a helpful measure for enhancing quality and their perception as professors, as a result of the inter-systemic relationship of lecturers and students.

In this context, it may be useful to consider the following suggestions: Arrangements can be made taking into ac-

count the results of surveys measuring the satisfaction and engagement level of students and academic staff. In-service workshops can be organized to provide skills in making effective course presentations. Strengthening the course environments and tools used with new technological opportunities can increase student engagement. Service quality can be increased by inspecting all components in an institution. Studies that address the quality of education and teaching services, teacher competencies, and student academic engagement levels can be conducted at all other school types. New international studies with larger samples can be conducted.

This study is limited to the context of higher education and Türkiye. The sample of this study is limited to students studying at state universities in Türkiye. New international studies with larger samples can be conducted. This study lays the groundwork for future multi-dimensional analyses. Thus, the relationships between these variables can be examined in a larger sample, and the results of existing studies can be compared. Another limitation is the scales used in the study. The sample group and measurement method of these scales also affect the findings and results of the current study. Therefore, to compare the results of the study, the number of similar studies on the subject should be increased.

Research Ethics

Ethical approval for this study was obtained from the Selçuk University Education Faculty Ethics Committee, with the decision dated 23/05/2023 and numbered E-16343714.

Artificial Intelligence Use

The author(s) declare that no generative artificial intelligence (e.g., ChatGPT, Gemini, Copilot, etc.) was used in any part of this study.

Yazar Katkıları / *Author Contributions*

The author(s) have (has) accepted responsibility for the entire content of this manuscript and approved its submission.

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Competing Interests

The author(s) state(s) no conflict of interest.

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Data Availability

The raw data can be obtained on request from the corresponding author.

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