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ARTICLES

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The assessment of service quality effect in higher education sector on satisfaction, suggestion, and behavioral intention of university students: The case of Turkey

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Abstract: The number of enterprises in the service sector is increasing with the time and the market for service sector is expanding. Universities as higher education institutions were affected by these developments in the service sector and have included providing quality service to their internal and external stakeholders as their top priority. Providing quality service in a university affects the satisfaction of students, who are among the most important stakeholders, their intention to suggest university to potential students and to visit after graduation. Hedperf scale was used to measure the service quality at universities and various institutions in different countries. The construct validity of the Hedperf scale was investigated according to the student perceptions at a university in Turkey and it was found with exploratory factor analysis (EFA) that service quality dimensions were classified into four dimensions - *academic*, *non-academic*, *reputation*, and *access*. Among these dimensions, the effect of *academic*, *reputation* and *access* dimensions on satisfaction,

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suggestion, and behavioral intention for visiting after graduation was determined, while the effect of *non-academic* dimension was not determined. Service quality dimensions explain approximately 31% of the variability in overall satisfaction. *Access* affects satisfaction at the level of β = .322, which is more than other dimensions. It was determined that the service quality dimensions explained 17% of the behavioral intention to "visit the university after graduation" and the effect of *access* (β = .264) among these dimensions was higher than the other dimensions. University service quality dimensions explain 23% of the intention for "suggest the university to potential students", and it was determined that the *reputation* dimension has the strongest effect (β = .367). The research explores the link between service quality and satisfaction, suggestion, behavioral intention and determines the construct validity of the scale developed in a foreign culture.

I. Introduction

The understanding that universities operate in a market-oriented environment is gaining popularity (Narang 2012, 357). While the higher education sector (HES) is seen as a marketplace, the education and training services offered at the university emerge as a marketable service. In other words, it is thought that universities will be successful if the education and training services offered can meet the demands of students (Sultan and Wong 2010, 267). Knowing the needs of students will let universities create products and programs that can meet their needs (Rodríguez-González and Segarra 2016, 172). This encourages universities to continue their activities in a way that will provide competitive advantage (Cristina, Levy-Mangin and Novo-Corti 2013, 603). Service quality in HES is seen as the strongest competitive factor that determines marketing and business strategy (Muhammad, Kakakhel, and Shah 2018, 165), and it provides convenience in students' employment by presenting students with the right skills (Randheer 2015, 31).

The quality of the services offered in HES is one of the most important factors for a university to attract students, meet the needs of students and make them loyal customers (Mahmoud and Khalifa 2015, 343). Universities have begun to recognize that higher education has evolved into a product, and as a result, they have begun to assess the quality of their services, redefine their products, and gain a competitive advantage by measuring student satisfaction in ways that are familiar to service marketing experts. They understood that their sustainability is contingent on the quality of their services, and that offering high-quality services sets one university apart from another (Tsinidou, Gerogiannis, and Fitsilis 2010, 227).

It has been seen that quality as a component of service delivery comes to the fore as an important concept in students' preferences for universities (De Jager and Gbadamosi 2010, 253). Service quality at universities is very complicated and involves uncertainty (Lazibat, Baković, and Dužević 2014, 923). Being multidimensional and complicated also makes it difficult to define a standard service quality and to apply a standard service quality measurement model for determining the service quality perceptions (Gruber et al. 2010, 107). The quality at universities is related to the concepts such as efficiency, fit for purpose, high quality standards, excellence, and customer orientation (Cristina, Levy-Mangin and Novo-Corti 2013, 603).

Research about service quality in the context of HES is considered novel compared to the commercial sector. However, most of the quality models used to measure the commercial sector's service quality have been extended to the educational sector (O'Neill and Palmer 2004, 39; Sultan and Wong 2013, 72). Recently, some studies have stated that a comprehensive service quality model needs to be developed for HES (Sultan and Wong 2013, 73).

Due to the unique characteristics of HES, some studies have been conducted for developing service quality measurement models at universities (Yıldız and Kara 2009, 394). In addition, different models for service quality have been created to determine service quality and its dimensions reliably (Saad 2013, 25).

With the escalation of competition, concepts such as service quality, student satisfaction, corporate image, and student loyalty, which were previously unmentioned at university strategic plans, have rapidly become critical for long-term sustainability of universities (Teeroovengadum et al. 2019, 428). Quality definitions for universities are made according to the perspectives of stakeholders and students are considered as the most important stakeholders of universities (Ali et al. 2016, 73). The purpose of this study is to measure the quality of the services received by the students of Nigde Omer Halisdemir University in Turkey with the Hedperf scale and determining the factor dimensions determined in the scale. It is also aimed in what way the perceived service quality dimensions affect the students and to investigate the level of effect of these quality dimensions on students' satisfaction, their intention for recommending university to potential students (suggestion) and visiting after graduation (behavioral intention).

II. Theoretical background

Service quality is related to the dominant market-oriented characteristics of a service provided, which have a long-term impact on the sustainable

supplier-buyer relationship. Perceived service quality is a mental construct of quality evaluation, and service quality evaluation is a cognitive result of perceiving, acquiring, rationalizing, and comprehending service qualities (Sultan and Wong 2014, 498). In HES, O'Neill, and Palmer (2004, p.42) explained service quality as the gap between what a student anticipates and what they actually get. The service quality studies at universities reveal the significance of monitoring the service quality to continuously improve universities (Brochado 2009, 175-176). It is important to use reliable and valid scales to measure service quality at universities (De Jager and Gbolahan Gbadamosi 2010, 252), and it is necessary to determine and apply appropriate tools to assess the quality of educational services for the creation of sustainable service quality (Campos, dos Santos and Castro 2017, 409).

The satisfaction, behavioral intention, and retention of students are significantly impacted by their perceptions of the university quality (Kruja, Ha and Tabaku 2021, 373). Student satisfaction with private university rises when they have a favorable opinion of the level of service. Satisfied students will therefore stay with the university and spread the information about it to others (Tan, Choong and Chen 2021, 4). Student satisfaction is likely to benefit universities in the form of student loyalty and good word of mouth, giving the university a competitive edge. Students who are satisfied with their educational experiences are more likely to remain loyal, suggest the university to other students, and support them financially (Chaudhary and Dey 2021, 30).

Universities must be interested not just in what community values in terms of graduate students' knowledge and talents, but also with how their students feel and view their education (Cristina et al. 2013, 602-603). By comprehending the expectations and perspectives of students, universities can attract students to their institutions and provide services that meet students' needs (Ushantha and Kumara 2016, 99).

II.1. *Quality measurement in HES*

Factors such as the development of education in a global environment and the reduction of the economic support given by the government to universities encourage universities to continue their education and training activities in a way that will provide competitive advantage. These have caused universities to feel the need to benefit from the education and training experiences of students (Abdullah 2006a, 72) and to understand customer orientation in HES (Abdullah 2006b, 570). Although the Hedperf scale has been created to determine the service quality at universities (Abdullah 2005),

the Servequal, Servperf and Grönroos measurement models, which are commonly applied to assess the service quality of universities, are also used. Abdullah (2005) concluded that the 41-item Hedperf scale's modified five-dimensional structure *-academic, non-academic, reputation, access,* and *program issues-* explained the variance better than the Servperf scale in terms of unidimensionality, reliability and validity. Brochado (2009) classified the quality dimensions as reliability, sensitivity, assurance, empathy, and concreteness in his study to determine which of the Servqual, Servperf, importance weighted Servqual, importance weighted Servperf and Hedperf service quality models have the best quality measurement feature in HES. Abdullah (2005) and Brochado (2009) determined that the Hedperf scale fits better than Servperf and Hedperf-Servperf scales in quality measurement at universities because of its more accurate estimates, more criteria and construct validity, and more explained variance.

Banahene, Kraa, and Kasu (2018, p.99) argued that the Hedperf scale is the most advanced technique for measuring the service quality of the universities, and Açan and Saydan (2009, p.228) discussed that the Hedperf scale measures service quality more reliably. Abdullah (2005) examined the performance of Hedperf, Servperf, and Hedperf-Servperf in predicting service quality. He discovered that the Hedperf scale's modified five-dimension structure demonstrated a considerable advantage.

A scale developed in one study under certain conditions for measuring service quality may give different results when used in another study. Factors such as geographical, religious, cultural, socio-political, lifestyle and technology can differentiate consumers' perceptions of service quality (Randheer 2015, 38). Therefore, the number of dimensions differ in studies using the Hedperf scale in HES such as four service quality dimensions *-academic, non-academic, reputation* and *access-* (Sheeja, Krishnaraj, and Harindranath 2014; Mang'unyi and Govender 2014; Ushantha and Kumara 2016; Muhammad, Kakakhel, and Shah 2018; Banahene, Kraa and Kasu 2018), five service quality dimensions *-academic, non-academic, reputation, access* and *program issues-* (Abdullah 2005; Abdullah 2006c; Abdullah 2006a) and six service quality dimensions *-academic, non-academic, reputation, access, program issues* and *understanding-* (Abdullah 2006a).

The *academic* dimension consists of the education and training services offered by the universities to the students. These consist of services such as guiding the students, encouraging them to do research, evaluating the feedback well by communicating with the students, and providing consultancy to them. Academic service quality means the basic service characteristics that offer fundamental academic principles such as quality and capability of

teaching, course improvement, and relationship between student and faculty. Academic activities in the context of the university are core values (Sultan and Wong 2013, 77). Academic and pedagogical quality is evaluated within the scope of academic staff and courses given by them. It is the qualification, competence, behavior, attitudes, and teaching style of academic staff, quality of teaching and efficient support given to students. Courses cover the quality of the programs, program outcomes, effectiveness of the teaching, content of curriculum, course structure and evaluation quality. It is also claimed that one of the factors of service quality is the academic background of lecturers (Arrieta and Avolio 2020, 223). The academic dimension indicates the lecturer obligations and emphasizes essential characteristics such as positive attitude, effective communication, adequate counseling, and regular feedback. The university's academic reputation is also crucial, notably its capacity to offer prominent and comprehensive courses with a flexible framework, locally and internationally accepted degrees, and highly educated and experienced academic staff (Abdullah 2005, 312; Abdullah 2006b, 575).

The *non-academic* dimension consists of the services that meet the needs of the students during their education. Expressions such as paying attention to the principle of confidentiality and protection of information by respecting students equally and providing good communication skills and timely services by administrative (non-academic) staff are included in this dimension. These are offered to students by administrative or support staff at universities.

This dimension includes the efficiency of administrative staff, the presentable appearance of staff, the support given to students by administration, IT facilities, turnaround to student inquiries, relations with students, service delivery, etc. (Arrieta and Avolio 2020, 224). It is known that the quality of administrative service plays a significant role in the general evaluation of service quality in HES. The attributes that enable the successful operation of academic tasks are referred to as administrative service quality. Administrative and support staff skills and talents, as well as their relationships with students, may be included in this dimension. A lack of administrative service quality might lead to improper assessment (Sultan and Wong 2013, 77). This dimension includes the variables for the duties and responsibilities of administrative staff, which is necessary to assist students in fulfilling their learning responsibilities. It is related to staff's capacity and desire to treat others with respect, give equitable treatment, and maintain data confidentially. It also emphasizes the significance of being friendly and reachable, having a positive attitude and strong communication abilities, giving students a reasonable degree of independence, and offering services within the time range specified (Abdullah 2005, 312).

It is important to maintain or develop the current situation of service quality by making improvements in the areas such as the dedication of administrative staff while showing interest in students' problems, having the ability to effectively evaluate and resolve students' complaints, responding to students' requests immediately, and determining working hours at appropriate times (Purwanto, Noor and Kusumawati 2020, 14). Ushantha and Kumara (2016) identified the *non-academic* and the *access* dimension as the most important dimension. The university administration should consider the training of administrative staff, improving their communication, and equipping them with the necessary skills to increase their productivity (Ushantha and Kumara 2016, 105).

Reputation dimension consists of the ability to reflect its own professional image to students through the services offered by the university. It explains the significance of universities to reflect a professional impression (Abdullah 2006b, 575). Students' impressions of the university in terms of reputation, modernity (programs that are regularly updated and open to worldwide cultural exchanges), attractiveness, and labor market connection are referred to as university image (Arrieta and Avolio 2020, 224). Ushantha and Kumara (2016) and Ali et al. (2016) determined that students perceive reputation dimension as the lowest dimension of service quality at a university. Thus, it is required to organize marketing activities and promotional programs to inform students. Purwanto, Noor, and Kusumawati (2020) concluded that the university maintains its services at a sufficient level in terms of reputation. Since service quality in the reputation dimension is perceived at a sufficient level, it can be tried to increase the quality perceptions of the students by making improvements in this dimension. It is known that factors such as classrooms, reading rooms, laboratories, parks, large parking lots, places where students will benefit as entertainment facilities, well-accredited departments, well-educated experienced lecturers, and employment rates of graduates are effective in increasing the reputation of the university.

Access dimension consists of features such as the accessibility and ease of communication of both academic and administrative staff. Accessibility is related to student consultant services, improvement feedback, respect, access to the services, student support facilities, library facilities (resources, business hours, availability of digital platforms and textbooks), lecture hall availability and study rooms, technical aid services and catering. It includes convenient opening hours, location, service accessibility, easy communication with staff, and so on (Arrieta and Avolio 2020, 224). Facility refers to the service quality necessary to promote competitiveness. Students define facility as access to amenities, including library amenities, leisure amenities,

career counseling, transportation amenities, dining amenities, computer access, workshops access, seminars, and conferences (Sultan and Yin Wong 2013, 77-78). Although many service quality features can affect a student's perception to a certain extent, the access dimension related to factors such as approachability, ease of communication, usability, accessibility, and comfort significantly affects general comprehension of the service quality (Abdullah 2006b, 569). Factors like the necessity of using new technological resources at universities and the development of a learning culture have raised concerns about the access dimension. Abdullah (2005) and Duževič, Časni, and Lazibat (2015) determined that students consider the access dimension as the most significant dimension in the assessment of perceived service quality. University administrators should prioritize the access dimension and apply marketing strategies that can attract new students to their universities and retain existing students (Duževič, Časni, and Lazibat 2015, 49-50).

Program issues express the broad and respected quality of the flexible curricula and academic programs offered to students by universities. The program issues dimension highlights the significance of providing comprehensive and respected academic programs with flexible framework and curricula (Abdullah 2006b, 575). To organize training programs to facilitate the employment of graduates, it is essential to examine the labor market's requirements in related areas and to implement training programs (Duževič, Časni, and Lazibat 2015, 50). Universities should offer a well-prepared curriculum to students by paying attention to the diversity, design, and flexibility of the programs they offer (Ali et al. 2016, 86).

Understanding is a dimension that expresses the personalized delivery of counseling and health services to students and an understanding of students' special needs. The understanding dimension has been seen as a significant factor of service quality for many industries. It includes elements relevant to recognizing students' special needs in terms of counseling and health services at universities (Abdullah 2006b, 575). Abdullah (2005) collected data from the students of six universities in Malaysia and determined that the understanding dimension was removed from the general fit assessment because of the weak fit value (RMSEA). Because of low reliability score, the understanding dimension was removed. Therefore, there is no understanding dimension in the modified version of the Hedperf scale.

II.2. *Satisfaction measurement in HES*

Analyzing quality perceptions with a marketing approach is of great importance in attracting students to universities and continuing their

education. HES is becoming increasingly significant in the economic growth of several countries.

Parasuraman, Zeithaml, and Berry (1988, p.16) argued that although service quality and satisfaction are interrelated, service quality is a long-term attitude towards the service business, while satisfaction is a temporary feeling associated with a specific service. Customer satisfaction is defined as an overall evaluation of the services supplied based on the experience obtained throughout service delivery (Teeroovengadum et al. 2019, 430). Given that both service quality and customer satisfaction are founded on the disconfirmation theory, it has been difficult to distinguish between the two concepts and identify service quality as an attitude and customer satisfaction as a transaction-specific metric (Clemes, Gan and Kao 2008, 295). Satisfaction is an emotional response triggered by a combination of product quality, process quality or services (Browne et al. 1998, 3). Two approaches, emotional and cognitive, can be used to define satisfaction. The most frequently recognized cognitive strategy for explaining the occurrence of satisfaction is the disapproval of expectations. Satisfaction has multiple antecedents and is a lot more complicated 'feeling' than many people believe (Clemes, Cohen and Wang 2013, 393). To thrive in the service industry, HEIs must meet the needs of its students (Pardiyono et. al. 2022, 137). Student satisfaction is a temporary attitude that results from an assessment of students' interactions with the university (Kruja, Ha and Tabaku 2021, 363).

A student's cognitive or emotional response to a particular or ongoing set of services provided by the university is known as their level of student satisfaction (Tan, Choong and Chen 2021, 4). Student satisfaction is often seen as a transient emotion that develops after a thorough examination of the educational experience. (Htang 2021, 103). To create strategies and procedures that can help to increase students' satisfaction, HEIs must identify and comprehend the aspects of service quality that students demand (Kruja, Ha and Tabaku 2021, 361). To give a thorough evaluation of satisfaction with university, Bertaccini, Bacci, and Petrucci (2021) advocated for the development of an ad hoc modified CSI (Customer Satisfaction Indices) model beginning from the European CSI (ECSI) baseline.

Universities are increasingly realizing that they are in the service industry, and they place a greater emphasis on satisfying students' expectations and demands. By identifying and meeting students' needs and expectations, universities can effectively attract and retain successful students. Thus, universities must identify and present what is significant to students (Elliott and Shin 2002, 197). In the context of HES, student satisfaction is a cognitive state of enjoyment resulting from the performance

assessment of service qualities (Sultan and Wong 2012, 764). Student satisfaction is positiveness of student's subjective assessment of various educational achievements and experiences (Elliott and Shin 2002, 198). Despite satisfaction is studied widely in the literature, there are limited studies on student satisfaction (Annamdevula and Bellamkonda 2016, 490).

Attitude influences both perceived quality and enjoyment. Perceived quality is the result of a long-term comprehensive evaluation, and satisfaction is the outcome of that evaluation. At universities, if the performance of service qualifications is good in general, students are satisfied (Sultan and Wong 2014, 493). A quality product at universities should provide certain outcomes for students, such as talent, knowledge, and the ability to successfully move on to the next stages of their lives. While student satisfaction and dissatisfaction may be related to meeting expectations in these areas, it is also affected by the processes involved in achieving the desired results (Browne et al. 1998, 3). Concentrating on student satisfaction allows universities restructuring their organizations to better meet student demands, as well as creating a system to track how well they meet or surpass these demands on a continuous basis (Elliott and Shin 2002, 197). Sultan and Wong (2014) determined that perceived service quality has a favorable influence on student satisfaction, and satisfaction affects confidence positively. The university brand, which has a very important role in the market, has been identified as another significant factor for satisfaction (Sultan and Wong 2014, 494). Teeroovengadum et al. (2019) determined a direct positive relationship between students' perception of the quality of transformative service offered by university and their level of satisfaction with their university, while they found that the level of the relationship between functional service quality and student satisfaction was not significant.

Ali et al. (2016) investigated international students' perceptions of service quality in Malaysian university and the effect of these perceptions on satisfaction, loyalty, and corporate image with the Hedperf scale. It has been determined that five dimensions of service quality affect satisfaction and satisfaction affects corporate image and student loyalty. The hypotheses that students who perceive the *academic*, *non-academic*, *program issues*, *reputation*, and *access* dimensions positively at the university will have higher satisfaction are supported. It has been concluded that satisfied students will perceive the corporate image positively and be more loyal to their universities. Ali et al. (2020) investigated undergraduate students' perceptions of quality in Malaysia and the relationship between these perceptions and student satisfaction with the Hedperf scale. As a result of their study, it was determined that there is a positive relationship between *academic, non-academic* and *reputation* dimensions and student satisfaction.

Browne et al. (1998) examined the relationship between university students' perceived service quality and satisfaction with the Servequal scale. They determined that satisfaction is affected by a student's perceived quality of a course and other curricular factors associated with university. Banahene, Kraa, and Kasu (2018) investigated the perceptions of service quality of students studying at a private university in Ghana and the effect of these perceptions on satisfaction and academic performance with the Hedperf scale. *Academic, reputation, program issues* and *access* dimensions were determined to be related to students' satisfaction positively. It was concluded that the *non-academic* dimension has a negative relationship with student satisfaction, and although the *access* dimension has a positive relationship with student satisfaction, it was found that this dimension was not statistically significant.

Lazibat, Baković, and Dužević (2014) conducted a study with the Hedperf scale to determine the effect of lecturers' and students' perceptions of service quality on students' satisfaction in a Croatian university. They found that students' and lecturers' perceptions of service quality were important determinants of student satisfaction. Muhammad, Kakakhel, and Shah (2018) analysed the impact of the Hedperf scale -academic, non-academic, access, reputation, and program issues- on customer satisfaction. It has been determined that *academic, non-academic, reputation* and *access* service quality dimensions affect customer satisfaction, while the program issues dimension is not effective. Mang'unyi and Govender (2014) concluded in their research that service quality dimensions affect satisfaction.

II.3. *Behavioral intention measurement in HES*

Behavioral intention is an indication of customers' individual evaluations of repurchasing current situation and likely circumstances a certain service from the same service business (Hellier et al. 2003, 1764) and that customers strengthen and maintain their relationship with a certain service business (Zeithaml, Berry, and Parasuraman 1996, 33). The service quality has an impact on how the consumer expects to act after receiving it. Customer satisfaction and/or customer perceptions of service quality have a favorable impact on intentions to behave positively toward a firm (Khoo, Ha, and McGroger 2017, 433). Customers' behavioral intentions reveal whether they will stay with the service provider or not. There are studies showing that behavioral intentions are affected by service quality, by satisfaction, and by both. It was also claimed that satisfaction is a mediator between service quality and behavioral intention (Clemes, Cohen and Wang 2013, 393). If service quality rating is high, behavioral intention is also positive and

relationship with the company is strengthened. If it's low, the behavioral intention is likely to be negative, and the relationship will possibly deteriorate (Zeithaml, Bery, and Parasuraman 1996, 35).

Universities no longer have a steady demand for their services. Universities that were solely available to the wealthy before must now compete for students and market share. While only a few prominent universities retain the ability to enroll students of their preference, the majority must compete in an open market with a diverse range of options (Teeroovengadum et al. 2019, 428). In HEIs, behavioral intention is related to student intention to continue their study at the same university at a higher level, distribute favorable word about the school, and refer other prospective students to the university (Riznic et. al. 2013, 583).

A student who is satisfied is highly likely to display positive behavioral intentions. Customers' behavioral intention reveals whether they will stay with the company or leave. Behavioral intention is described in education as a student's willingness to act, and it can encompass both positive and negative attitudes as well as behavioral consequences. Brand performance at universities can also affect students' behavioral intentions positively. This is because students want to graduate from a respected and well-known university (Sultan and Wong 2014, 494). Haverila and Haverila (2022) determined that student satisfaction was highly relevant to behavioral intention positively. Dlacic et al. (2014) determined that service quality and value perceived by university students are important predictors of repurchase intention. Khoo, Ha and McGroger (2017) determined positive relationships among students' perceived service quality, satisfaction, and behavioral intentions. Sultan and Wong (2013) concluded that students' perceived service quality indirectly affects brand performance and behavioral intention through satisfaction and trust. Khoo, Ha and McGroger (2017) determined that perceived service quality was positively associated with behavioral intentions. In their research, Annamdevula and Bellamkonda (2016) found that the service quality perceived by the student and satisfaction were positively related and that student satisfaction fully and partially mediated the relationship between the service quality perceived by the student and student loyalty. In the same study, it was also determined that student satisfaction both fully and partially mediated the connection between student perceived service quality and student behavioral intention.

II.4. *Suggestion measurement in HES*

Positive behavioral intentions result in suggesting the company's services to other people (Gürbüz et. al 2008, 792). Satisfied students are a valuable

reference for universities, while dissatisfied students can foster a culture of complaints that harms the university's reputation (Osman and Saputra 2019, 142). The quality of service has a favorable impact on behavioral outcomes like loyalty and good word of mouth (Boulding et al. 1993, 8). Inadequate service quality leads to customer dissatisfaction or complaints. The desire to speak positively about the university and to suggest university to others are found among the behavioral intentions (Khoo, Ha, and McGroger 2017, 433). In the context of HES, customer satisfaction is also seen to be a positive predictor of willingness to provide recommendations. According to existing studies, a pleased consumer is more likely to suggest the acquired brand to others, implying that there is a link between satisfaction, behavioral intentions, and willingness to recommend (Haverila and Haverila 2022, 253).

Browne et al. (1998) examined the relationship between university students' perceived service quality and satisfaction with the Servequal scale then concluded that the probability of a student recommend university to their friends/relatives is greatly affected from the size of interaction between students and university staff.

III. Methodology

Although Servequal and Servperf have been used commonly to measure the service quality of higher education institutions, Hedperf was developed specifically to measure service quality in HEIs. Additionally, the Hedperf scale was used for this study because its validity and reliability have been established in several studies, and because the scale items used to assess service quality were ranked in terms of *academic, non-academic, access, reputation*, and *program issues*.

III.1. Research hypothesis

A positive perception of service quality will result in satisfaction, positive behavior intentions for visiting university after graduation and suggesting university to potential students while a negative perception will result in dissatisfaction, negative behavior intention for visiting after graduation and negative comments about university. The effect of service quality level is the subject of research involving service enterprises, and it is known that it has not been adequately studied at universities. The irregularity of student demand with the increase in the number of universities causes the issues of service quality, satisfaction, positive behavior intention for re-visit and suggestion are becoming more important for universities. The hypotheses in this study aiming

to determine whether the perceived service quality dimensions in the context of universities affect students' satisfaction, their intention to visit after graduation and suggestion to potential students, are stated below.

Providing high-quality services to students has a significant impact on their satisfaction (Lau 2016, 391). Students may be satisfied if they have a pleasant experience with university services and believe that they are of high quality (Kruja, Ha and Tabaku 2021, 362). Student satisfaction and the image of university program were both increased by the perceptions of service quality (Tan, Choong and Chen 2021, 4). According to empirical research, student satisfaction is significantly influenced by service quality. Universities should evaluate student satisfaction using the outlined quality dimensions. We investigated the link between service quality and student satisfaction in higher education and discovered data to support this.

This results in the initial hypotheses:

H1: The quality perceptions of the university students affect their satisfaction levels.

The perceived quality is a factor in satisfaction, which should promote behaviors that include repeat purchases. These actions can be translated in the education field as a desire to continue education after receiving a degree (Bertaccini, Bacci and Petrucci 2021, 1). The link between service quality and constructive behavioral intentions is thought to be improved by measuring emotional satisfaction as a key indication. The research from Malaysian Public Universities shows that, with strong impacts, emotional satisfaction mediates the links between service quality and positive behavioral intentions (Mustaffa et. al. 2016, 499). A favorable sense of service quality may have a beneficial influence on students' satisfaction, and pleased students are more likely to interact favorably with prospective students and come back to the HEI to enroll in other programs (Kruja, Ha and Tabaku 2021, 362). There is a considerable chance that they will spread the word about the university, its services, and its brand and return to enroll there to continue their studies in the future if a student is satisfied with the university's services (Tan, Choong and Chen 2021, 5). Studies on student loyalty in HEIs assist college administrators in developing suitable programs that encourage, build, develop sustainable connections with students. Higher quality perceptions have a favorable impact on students' behavior intentions (Annamdevula and Bellamkonda 2016, 495). If students are really pleased with the university services they have received, their dedication will be especially increased (Cinkir, Yildiz, Kurum 2022, 2-3).

This brings up the following second premise:

H2: The quality perceptions of the university students affect their behavioral intentions to visit the university after graduation.

In the context of HEIs, student loyalty encompasses behaviors like praising a university to others, recommending to others, and returning to the same university in the future (Dewi et. al. 2020, 94). With more options, students are pickier about which university they will choose. Higher education has significant difficulties as a result, but they work to solve students' dissatisfaction to draw in new students and keep hold of current ones. Because unsatisfied students may disseminate unfavorable rumors, student satisfaction becomes crucial. Higher education has long placed a great emphasis on service quality. However, it is important to comprehend how students view the factors that determine and the results of the quality of services provided by higher education.

The potential advantages from a long-term commitment with students, such as good word-of-mouth advertising and prospective partnership with the university after graduation, highlight the significance of knowing students' perceptions of the quality of university services (Chong and Ahmed 2012, 36). Students are more likely to encourage others to enroll in their universities if they believe that the services are good (Pardiyono et. al. 2022, 138). The amount to which students tell their peers about their university after enrolling is what this study's word of mouth communication behavior is focused on. Word of mouth has long been seen as a potent tool for charity organizations, including colleges, as well as a potent source of information for consumers. Previous research has discovered connections, both direct and indirect, between students' opinions of service quality and effective word of mouth (Casidy 2014, 146).

This leads to the third hypothesis:

H3: The quality perceptions of the university students affect their suggestion intention to potential students.

III.2. Data collection and sample

In this study, data were collected from the students of Nigde Omer Halisdemir University in Turkey with the face-to-face survey method and quota sampling method. Quota sampling method was employed by dividing the population into strata (or subgroups) and reserved a non-random sample for each subgroup. Quota sampling was used for proportioning the sample to the

student number present in each of the different academic units to represent the population effectively. The study population consists of undergraduate and vocational degree students studying at Nigde Omer Halisdemir University in Turkey in the Spring Semester of the 2018-2019 Academic Year. A face-to-face survey method was conducted between 25.02.2019 and 25.04.2019.

Hedperf scale developed by Abdullah (2005, p.308) consists of 4 parts: A, B, C, D. In part A, the demographics and personal information of students were collected. In part B, there are questions from the 22-item Servperf scale adapted to universities. The questions in section C consist of 41 items that were taken from the Hedperf scale. All items in parts B and C were arranged as expressions in a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Part D measures students' overall perceptions of service quality, satisfaction levels, the intentions for giving suggestions to potential students and future visits after graduation. In addition, in part D, three open-ended questions were asked to explain the students' personal opinions about how the quality of service should be increased.

Data was collected from 1150 participants and 1112 questionnaires were evaluated. 50.7% (n= 567) of the sample was female, 48.5% (n= 542) was male, 35.7% (n = 399) was first grade students, 31.6% (n = 353) was second grade, 15.8% (n=177) was third grade students and 15.5% (n=173) was fourth grade students.

IV. Results

IV.1. *Normal distribution analysis*

The data was discovered to have a normal distribution since the kurtosis and skewness coefficients shown in Table 1 are all between -1.96 and 1.96 values, respectively (Howell, 2006: 76).

Table 1

Kurtosis and Skewness Values of Quality Dimensions

Perceived Service Quality	Kurtosis	Skewness
1. Academic Dimension	-.598	.319
2. Non-Academic Dimension	-.469	.198
3. Reputation	-.036	.103
4. Access	-.324	.145

General Perception	Kurtosis	Skewness
1. Perceived Quality	-.529	.676
2. General Satisfaction	-.489	-.203
3. Intention	.742	.171
4. Suggestion	.271	-.795

IV.2. *Validity and reliability analysis*

Kaiser-Meyer-Olkin (KMO) value was determined to be 0.943 with exploratory factor analysis (EFA). In addition, according to the Barlett sphericity test result, the chi-square ($\chi2$) value is at the level of 0.01 ($\chi2$=191.500, p =.00). These show that the data come from a multivariate normal distribution. Principal component analysis, one of the factorization techniques, was used to reveal the factor structure of the scale. The varimax (maximum variability) method, one of the vertical rotation methods, was used to find the dimension the items fit in better. For the main scale, objects with a factor loading of at least 0.32 were chosen (Tabachnick and Fidell 2007: 646). Items 3, 12, 17, 19, 20, 26, 27, 30, 31, 32, 33, 34, 35 were removed from scale as they had high load values in more than one factor. The values for factor load obtained with EFA are given in Table 2.

Table 2

Factor Load Values of Items

Item number	Academic	Non-Academic	Reputation	Access
k5	.757			
k2	.729			
k6	.724			
k4	.710			
k1	.636			
k7	.626			
k8	.582			
k22		.770		
k21		.709		

Item number	Academic	Non-Academic	Reputation	Access
k29		.683		
k23		.666		
k28		.652		
k24		.639		
k25		.519		
k11			.676	
k13			.619	
k15			.612	
k16			.571	
k18			.520	
k9			.516	
k14			.484	
k10			.479	
k39				.725
k40				.705
k38				.600
k41				.584
k37		.410		.511
k36		.353		.479

When Table 2 is examined, it is found that items are categorized under four dimensions that are sufficiently distinct from one another. Items in the first dimension are related to the *academic*, the second-dimension items are related to the *non-academic*, the third-dimension items are related to the *reputation*, and items in the fourth dimension are related to the *access*. The dimensions that Abdullah (2005) explained as program issues (providing comprehensive and respected academic programs with a flexible structure and curriculum) and understanding (counseling and health services) were not included because the model in this study was designed as 4 dimensions of the Hedperf scale. Item 37 in the Hedperf scale includes counseling service, item 38 includes health services. In this context, the understanding dimension was

merged with the *access* dimension in the scale. Also, adequate specialization programs in Hedperf scale are presented in item 15, flexible curriculum in item 16, and prestigious diploma programs in item 18. In this context, the *program issues* dimension was merged with the reputation dimension. The variance rates explained by each dimension in the scale are given in Table 3.

Table 3

Principal Components Analysis of Dimensions

Dimensions	Eigenvalue	Percentage of Variance	Percentage of Total Variance	Quality Rank
Academic	4.134	14.764	14.764	1
Non-Academic	4.046	14.449	29.213	1
Reputation	3.305	11.802	41.016	2
Access	2.860	10.213	51.228	3

Academic and *non-academic* dimensions are considered in the first place in the students' service quality perceptions towards university, according to the explained variance results. *Reputation* is in the second place, and *access* is in the third place (See Table 3). However, the service quality of universities should be evaluated with a holistic approach that includes all dimensions.

To determine whether the factor structure obtained by EFA of the scale was verified or not, Confirmatory Factor Analysis (CFA) was performed. Chi-square ($\chi2$), $\chi2$/sd, RMSEA, NNFI, NFI, CFI, IFI, GFI and AGFI are the most frequently used statistics calculated on model-data fit. CFA. $\chi2$/sd ratio less than 2, the RMSEA value less than 0.05, and GFI, AGFI, NFI, NNFI, CFI, IFI values higher than 0.95 indicate that the model data fit is excellent (Tabachnick and Fidell 2007: 715-720). The values obtained from the scale are in Table 4 with the values of goodness of fit. According to these values, the factor structure of the scale is confirmed.

Table 4

Goodness of Fit Values for the Hedperf Scale

Fit Indices	Good Fit	Acceptable Fit	Goodness of Fit Values
RMSEA	0≤ RMSEA≤ .05	.05 < RMSEA ≤ .08	0.039
NFI	.95 ≤ NFI ≤1	.90≤ NFI < .95	0.98

Fit Indices	Good Fit	Acceptable Fit	Goodness of Fit Values
NNFI	.97 ≤ NNFI ≤1	.95≤ NNFI < .97	0.99
CFI	.97 ≤ CFI ≤1	.95≤ CFI < .97	0.99
GFI	.95 ≤ GFI ≤1	.90≤ GFI < .95	0.94
AGFI	.90 ≤ AGFI ≤1	.85≤ AGFI < .90	0.93
χ^2	$0 \leq \chi^2 \leq 2\ df$	$2\ df \leq \chi^2 \leq 3\ df$	
p	$.05 < p \leq 1.00$	$.01 \leq p \leq .05$	$p < .05$
χ^2/df	$0 < \chi^2/df \leq 2$	$2 < \chi^2/df \leq 3$	2.63

Source: Schermelleh-Engel, Moosbrogger and Müller 2003, p. 52.

Considering all the values related to the model-data fit in Figure 1, the data of the established model is in near-perfect fit. These findings reveal that the scale's factor structure is supported by the data, indicating that the scale has structural validity.

Table 5 shows the reliability coefficients of the perceived service quality dimensions. The confidence coefficients show that *academic*, *non-academic*, *reputation* and *access* dimensions are reliable.

Table 5
Hedperf Scale Dimensions Confidence (Cronbach Alfa) Coefficients

Dimensions	Number of Items in the Scale	Cronbach Alfa Coefficient
Academic	9	0.859
Non-Academic	12	0.892
Reputation	9	0.760
Access	7	0.825
Program Outcomes	2	0.60 (Merged with reputation)
Understanding	2	0.501(Merged with access)

Table 6 and Figure 2 show the effect of students' perceived *academic*, *non-academic*, *reputation* and *access* on satisfaction and the level of this effect.
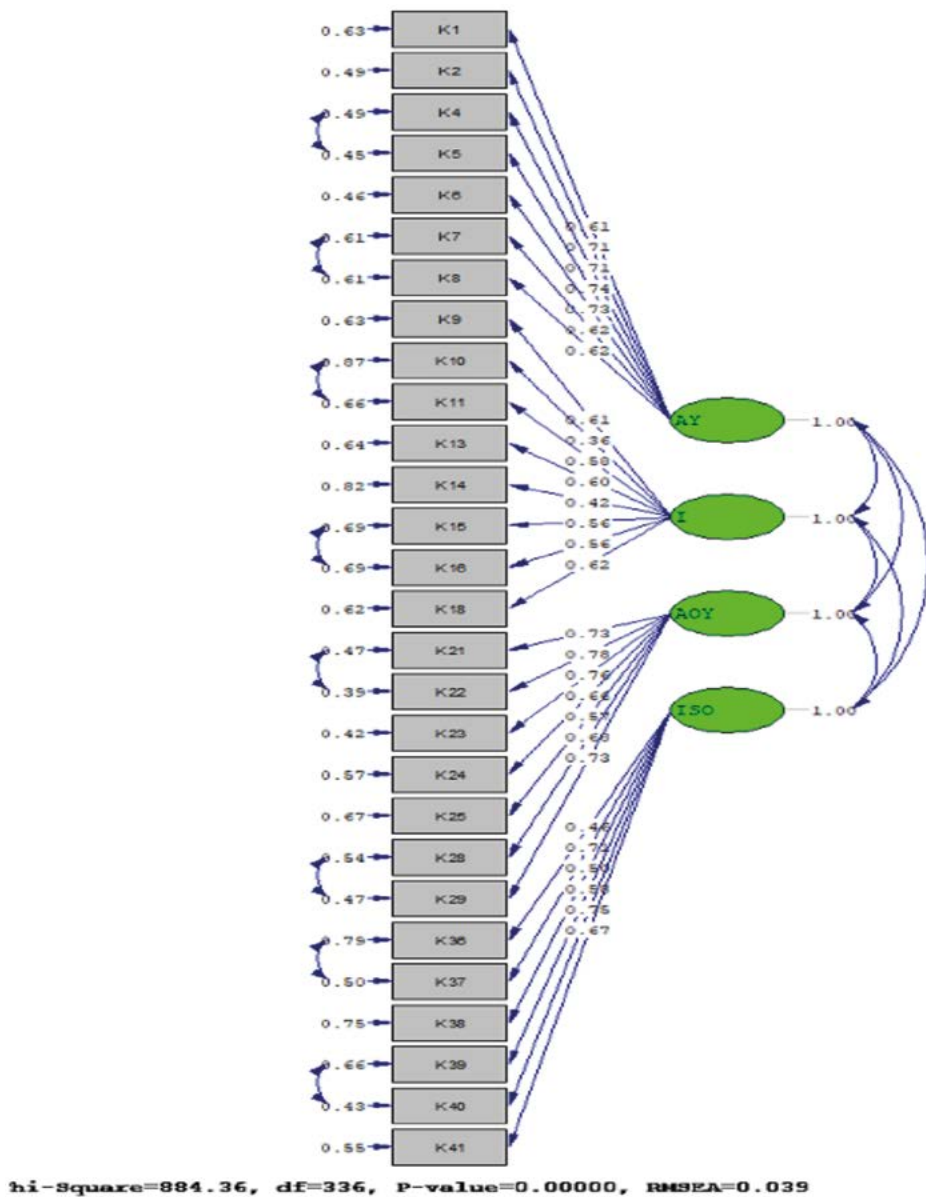
Figure 1

Confirmatory Factor Analysis Results of Hedperf Scale

Table 6

The Effect of Hedperf Dimensions on Satisfaction

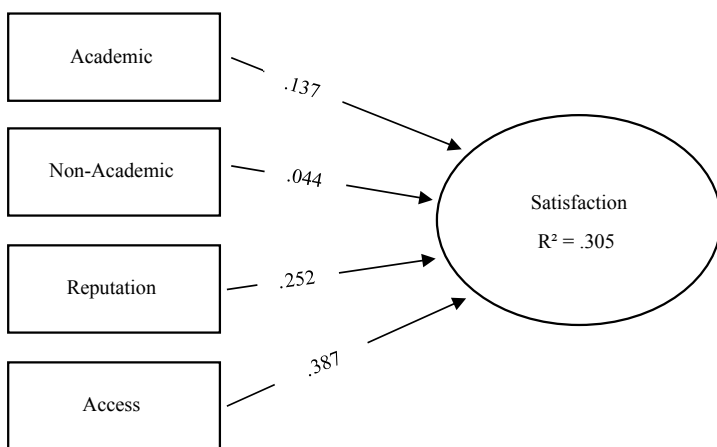| Independent Variable	Dependent Variables	β	T	p	Adjusted R²
Service Quality Dimensions a. Academic b. Non-Academic c. Reputation d. Access	Satisfaction	.137 .044 .252 .387	3.567 1.056 5.966 9.314	.000 .291 .000 .000	.305
F = 122.081, *p* = 0.00, *R* = .554, *R²* = .307					

Figure 2

The Effect of Hedperf Dimensions on Satisfaction

As seen in Table 6 and Figure 2, at least one of the service quality dimensions was found to be a significant predictor of "satisfaction" (F = 122.081, p < .05). When the non-standardized regression coefficients are examined, *access* (β = .387) has the strongest effect on satisfaction. A 1-unit change in *access* dimension causes an increase of 0.387 in satisfaction level. A 1-unit change in *reputation* dimension provides an increase in satisfaction by 0.252 (β = .252). A 1-unit improvement in *academic* dimension increases the satisfaction level by 0.137. The effect of the *non-academic* dimension on satisfaction (β = .044) was not significant (p> 0.05). When the explained variance rates are examined, service quality dimensions explain approximately

31% (Adjusted R2 =.305) of the variability in satisfaction. H1 was accepted for *academic, reputation* and *access* dimensions, while *non-academic* dimension was not accepted for quality perception. The *academic, reputation* and *access* dimensions affect the satisfaction levels of university students from the services they receive, while the *non-academic* dimension does not.

Table 7 and Figure 3 show to what extent students' perceived *academic, non-academic, reputation* and *access* dimensions predict their behavioral intentions to visit the university they graduated from.

Table 7

The Effect of Hedperf Dimensions on Behavioral Intention
to Visit University after Graduation

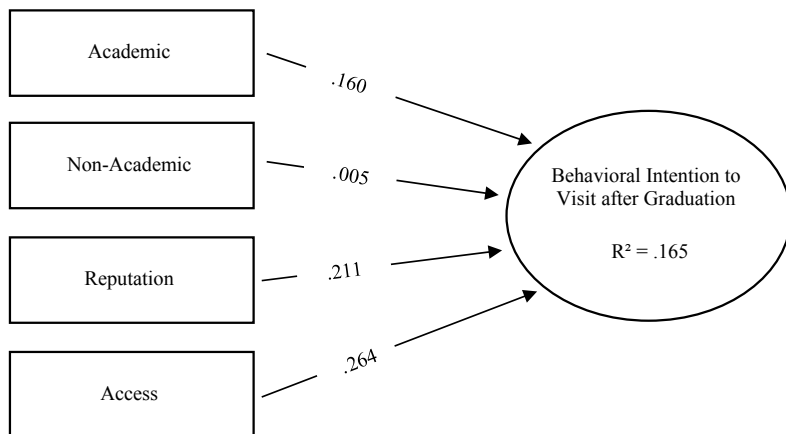| Independent Variable	Dependent Variables	β	t	p	Adjusted R²
Service Quality Dimensions a. Academic b. Non-Academic c. Reputation d. Access	Intention	.160 .005 .211 .264	3.654 .104 4.401 5.589	.000 .917 .000 .000	.165
F = 55.785, *p* = 0.00, *R* = .410, *R²* = .168					

Figure 3

The Effect of Hedperf Dimensions on Behavioral Intention
to Visit University after Graduation

As seen in Table 7 and Figure 3, at least one of the service quality dimensions perceived by the students was a significant predictor of "behavioral intentions to visit the university after graduation" (F = 55.785, p < .05). When the non-standardized regression coefficients are examined, *access* dimension (β = .264) has the strongest effect on behavioral intention. A 1-unit change in *access* causes an increase of 0.264 in behavioral intention to visit university after graduation. A 1-unit change in the *reputation* dimension provides an increase of 0.211 (β = .252), and a 1-unit change in *academic* dimension provides an increase of 0.160 (β = .160) in the behavioral intention to visit. It was found that the *non-academic* dimension did not affect the number of visits to the university after graduation (β = .005, p> 0.05). When the explained variance rates are examined, the service quality dimensions explain 16% of the behavioral intention to visit the university after graduation (Adjusted R2 =.165). H2 was accepted for the *academic, reputation* and *access* dimensions, but not for the *non-academic* dimension. The *academic, reputation* and *access* dimensions affect the behavioral intentions of visiting their universities after graduation, while the *non-academic* does not.

Table 8 and Figure 4 show to what extent *academic, non-academic, reputation*, and *access* dimensions predict students' behaviors in giving suggestions to potential students.

Table 8

The Effect of Hedperf Dimensions on Suggestion to Potential Students Behavior

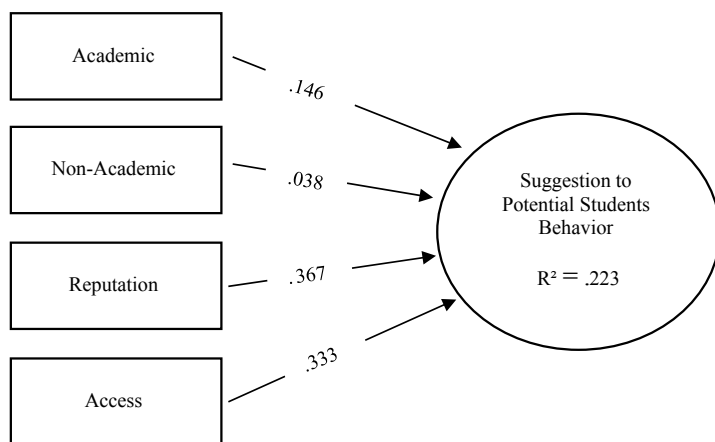| Independent Variable	Dependent Variables	β	t	p	Adjusted R²
Service Quality Dimensions a. Academic b. Non-Academic c. Reputation d. Access	Suggestion to Potential Students	 .146 .038 .367 .333	 2.905 .701 6.653 6.120	 .004 .484 .000 .000	 .223
F = 80.277, *p* = 0.00, *R* = .475, *R²* = .225					

Figure 4

The Effect of Hedperf Dimensions on Suggestion
to Potential Students Behavior

When the non-standardized regression coefficients in Table 8 and Figure 4 were examined, it was seen that reputation (β = .367) and access (β = .333) dimensions predicted the suggestion most strongly. While the *academic* dimension has an effect at the level of 0.146 (β = .146) on the suggestion for 1 unit change, the *non-academic* dimension (β = .038, p >0.05) has not. When the explained variance rates are examined, service quality dimensions explain approximately 22% (Adjusted R2 =.223) of the variability in suggestion. H3 was supported in *academic, reputation* and *access* dimensions, but not in *non-academic* dimension. *Academic, reputation*, and *access* affect students' behavioral intention to suggest university to potential students, while *non-academic* dimension does not.

V. Discussion

Service quality has become one of the most crucial criteria to be questioned because of developments and competition in the service sector. This insight has permeated the education sector and motivated universities to become aware of their students' expectations. Advances in universities are intended to consistently enhance the quality of services provided to students. Since they are immediately impacted by the services offered by universities and are involved in the process, students' perspectives have emerged as one

of the most crucial quality indicators. When consumers have a bad encounter, they adversely evaluate perceived quality. In other words, their prior experiences have an impact on how they perceive the quality of the service. The basis of a student's opinion of service quality in a university is thought to be their prior experiences as well as their contacts with university employees (Ghobehei et. al. 2019, 350).

Exploratory and confirmatory factor analyses were carried out to establish the construct validity of the scale created in a different culture. The items were categorized into four factors that were sufficiently distinct from one another with the exploratory factor analysis. The items in the first, second, third, and fourth dimensions were related to service characteristics related to *academic* dimension, service characteristics related to *non-academic* dimension, service characteristics related to *access* and service characteristics related to *reputation*, respectively. *Academic* and *non-academic* dimensions are rated at the same level as they come in the first place in the ranking according to the explained variance values, followed by *reputation* and *access*. Different studies that use the Hedperf scale in HES have different numbers of dimensions, such as four service quality dimensions -ac*ademic, non-academic, reputation*, and *access*- (Sheeja, Krishnaraj, and Harindranath 2014; Mang'unyi and Govender 2014; Ushantha and Kumara 2016; Muhammad, Kakakhel, and Shah 2018; Banahene, Kraa and Kasu 2018), five service quality dimensions -*academic, non-academic, reputation, access*, and *program issues*- (Abdullah 2005; Abdullah 2006c; Abdullah 2006a), and six service quality dimensions -*academic, non-academic, reputation, access, program issues* and *understanding*- (Abdullah 2006a). The capacity of the service provider to appropriately execute *academic, non-academic, program issue*, and *access* dimensions is confirmed as being crucial to increase the satisfaction by Khalid, Ali, and Makhbul (2019).

The first three hypotheses—hypotheses 1, 2, and 3—were verified in terms of *academic, reputation*, and *access* dimensions, but not in terms of *non-academic* dimension that had to do with impacts on student satisfaction, future behavioral intentions, and suggestion behavior of university students. The following dimensions -*academic, non-academic, reputation*, and *access* - have a positive and substantial impact on students' satisfaction, according to Mulyono et al. (2020). Students' satisfaction was unaffected by the *program issues* dimension or its component concerns. According to Moslehpour et al. (2020), the *non-academic* dimension of service quality has the greatest impact on student satisfaction, which in turn has a significant impact on the reputation. The link between the *academic* and *non-academic* dimensions of service quality and university *reputation* is mediated through

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student satisfaction. Singh and Jasial (2021) found that student satisfaction was shown to be positively and significantly affected by teaching abilities, staff competence, reputation, and access, although a substantial influence of teaching abilities of lecturers and staff service attitudes could not be demonstrated. Students view the *academic* dimension to be the most rewarding dimension of service quality, followed by *access* and *reputation*, according to Duzevic and Casni (2015). The dimensions with the weakest results were HEI facilities and study programs.

According to Dewi et al. (2020), student satisfaction has a large impact on student loyalty, whereas educational quality has a big impact on student satisfaction. According to Mustaffa et al. (2016), emotional satisfaction has a sizable influence on the correlations between service quality and positive behavioral intentions. According to Kruja, Ha, and Tabaku (2021), retention and general student satisfaction are positively correlated. According to Tan, Choong, and Chen (2021), student perception of service quality has a favorable impact on both student satisfaction and behavioral intentions in terms of word of mouth (suggesting university to other students). Student satisfaction serves as the primary mediator in the association between student behavior intentions and perceived service quality. They have shown a connection between students' behavioral intentions and satisfaction with the university. On the relationship between student satisfaction and behavioral intentions, switching obstacles have not been proven to have a mediating influence, nevertheless. According to Annamdevula and Bellamkonda (2016), students' perceived service quality has a direct beneficial impact on satisfaction, loyalty, and motivation. It supports the idea that student satisfaction plays a partial and full mediating function between students' perceptions of the quality of the services they get from universities and their loyalty and motivation to those services. According to Clemes, Gan, and Kao (2008), a higher degree of satisfaction enhances the likelihood that students would consider returning to the same university in the future and strengthens their desire to suggest it to others. Also, it notes that the largest influence on satisfaction with higher education is service quality. According to Subrahmanyam (2017), the perceived service quality of students has a direct impact on their satisfaction and motivation, as well as a secondary impact on their loyalty. Their research revealed that students' perceived service quality is a significant predictor of students' satisfaction, motivation, and loyalty, demonstrating the significance of service quality. The satisfaction of graduates is impacted by all service quality characteristics, according to Sharabati, Alhileh, and Abusaimeh (2019). According to Chaudhary and Dey (2021), student satisfaction was directly impacted by how well they

considered their services to be. According to Riznic et al. (2013), students' behavioural intentions are significantly influenced by the quality and satisfaction of higher education services. The influence of satisfaction on behavioural intentions, however, is more significant and modulates the effect of service quality. According to Teeroovengadum et al. (2019), technical service quality, image, and perceived value have an impact on student satisfaction but not functional service quality.

As a result, in the context of HEIs, the perceived service quality is found to be the most significant predictor of student satisfaction. Thus, satisfied students are more likely to exhibit the desired behavioral intentions. If a student is pleased with the university's services, they are likely to continue to speak positively of the school and may even decide to return in the future for higher degrees there (Tan, Choong and Chen 2021, 11). According to Mulyono et al. (2020), it is essential to increase the teaching quality to raise students' academic and communication skills. Conducting training and development initiatives and enhancing administrative staff awareness programs are crucial in terms of *non-academic* dimension. For the *reputation* dimension, it is also necessary to implement a number of marketing initiatives that are intended to influence students and help them form favorable impressions of the university. In the meantime, it is important to ensure that every student has direct access to staffs, and it is important to improve dimensions that can boost student satisfaction thus students are convinced of their decisions about the university, and they suggestion it to others.

According to the findings, increasing students' satisfaction—such as their satisfaction with their decision to enroll, their satisfaction at the time of registration, and their satisfaction with teaching—will increase students' loyalty and commitment to the university until they graduate significantly. Suggestion to others (positive word of mouth) about the university will increase applications, and more students will stay to complete their degrees (Mulyono et al. 2020, 936).

VI. Results

In Turkey, four dimensions have been determined in the quality of the services received by the students of Nigde Omer Halisdemir University as *academic, non-academic, reputation* and *access*. Hypotheses 1, 2 and 3, were confirmed in *academic*, *reputation* and *access* dimensions, but not in *non-academic* dimension that relating to effects of quality perceptions of the university students on students' satisfaction, suggestion, and behavioural intentions for visiting university in the future.

Service quality dimensions explain approximately 31% of the variability in overall satisfaction. While *academic, reputation* and *access* dimensions affect general satisfaction significantly, the *non-academic* dimension was shown to have no substantial impact. *Access* affects satisfaction at the level of $\beta = .322$, which is more than other dimensions. Universities should give importance to strategies that improve *access, reputation*, and *academic* dimensions to increase students' satisfaction levels. In the literature, there are studies that support this result for *access* (Ali et al. 2016), *academic, non-academic, access, program issues* (Ushantha and Kumara 2016), *academic, reputation, access, program issue*, (Banahene et al. 2018), *academic, non-academic, reputation, access* (Mang'unyi and Govender 2014) and do not support for *reputation* (Ushantha and Kumara 2016), *non-academic* (Banahene et al. 2018), and it is thought that different results were obtained due to the sample difference and the heterogeneity of services.

In this study, it was determined that the service quality dimensions explained 17% of the behavioral intention to "visit the university after graduation" and the effect of *access* ($\beta = .264$) among these dimensions was higher than the other dimensions. While *reputation* dimension was effective at the level of $\beta = .211$ and academic dimension at the level of $\beta = .160$, the effect of *non-academic* dimension was not determined ($\beta = .005$).

University service quality dimensions explain 23% of the intention for "suggesting university to potential students", and it was determined that the *reputation* dimension has the strongest effect ($\beta = .367$), then *access* dimension comes with $\beta = .333$, and *academic* dimension with $\beta = .146$. The *non-academic* dimension does not have any significant effect on the intention of giving suggestions. This finding confirms that students give priority to universities with more brand image.

VI.1. *Recommendations for practitioners*

Although the results are limited to the date of the study and the students of Nigde Omer Halisdemir University in Turkey, this study determined the service characteristics of academic and administrative staff ranks in the first place according to the variance values explained therefore strategic plans and practices for continuous improvement should be encouraged in accordance with the quality. It has been found that the marketing strategies to be applied for gaining the *reputation* dimension, which is considered in the second place by students in this study, are also significant for universities. For the *reputation* dimension, public relations and promotional activities should be expanded in traditional and social media. Ease of access to technological and

physical facilities should be reviewed for the *access* dimension, which is ranked in the third place in this study. It is recommended to use multiple communication channels such as telephone, face-to-face, e-mail and social media effectively so that they can access universities more regularly and effectively.

Due to the opening of new universities in Turkey and the relative weight of private universities increasing, universities have begun to offer their services in a competitive market like other businesses. The awareness of businesses operating in competitive markets to provide quality service becomes even more important at universities as they produce science that will be the locomotive of the country's economy. Professional interest in employment will contribute to efficiency in the country's economy, and education with high quality and better institution image will contribute to the preference of students with high scores. *Academic, non-academic, reputation* and *access*, which are determined as dimensions that can affect the perception of quality, are recommended as areas that should be managed by the quality coordinators of universities. The finding that these dimensions have an impact on the students' intention to suggest university to others may affect the sense of belonging positively, as they affect the percentage of student occupancy, and the number of visits after graduation. To provide competitive advantage for a university, it is recommended to use resources efficiently by prioritizing quality dimensions.

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