

# Essential Attributes of Service Quality in Higher Education Institutions: A Systematic Literature Review

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## Abstract

*This paper presents the results of a systematic literature review (SLR) of academic research related to service quality attributes in higher education institutions. The literature review is organised around two main objectives: identifying trends of studied topics and significant attributes in implementing service quality. A comprehensive search of relevant databases of published research from 2012 to 2022 was conducted to identify peer-reviewed articles that meet the criteria for inclusion in the review. The search yielded a total of 28 relevant studies, which were evaluated to address the study objectives. The SLR identified four clusters of topics within service quality: The importance of quality services, quality evaluation, the role of digital technology, and stakeholders' retention. Finally, the derived attributes in this paper are expected to assist higher education institutions (HEIs) in developing countries, particularly in developing countries, in identifying areas of improvement in their service quality and making targeted adjustments to improve the overall experience of their stakeholders.*

**Keywords:** *higher education institutions; service quality attributes; service experience; systematic literature review.*

## Introduction

In the current competitive climate of higher education institutions (HEI), it has become essential for management to begin focusing on service quality to meet their stakeholders' needs. The education sector has grown at an accelerating rate and now possesses the status of a full-fledged service industry on a global scale. Within the last decade, Higher education institutions have been widely perceived as part of the service

industry (Galeeva, 2016; Ghazi & Hilmansyah, 2021). As the primary stakeholders of the HEI, students desired a higher quality of education. This characteristic is typically associated with high student enrollment and retention at Higher education institutions. For this reason, universities and colleges worldwide strive to provide their students with relevant, compelling, and enlightening learning experiences that demonstrate their commitment to quality education (Latif et al., 2019).

The increasing competition to enhance retention and enrollment figures has driven the adoption of a 'students as our clients and customers' paradigm in the higher education delivery model. Subsequently, the phenomenon has attracted many scholars to study and highlight the significance of service quality in HEIs (Mariana & Redjeki, 2020; Marimon et al., 2019; Yeo, 2008; Zakariah et al., 2016). The previous studies indicate the need for HEIs to adapt and evaluate their existing academic experience delivery.

The academic experience provided by higher education institutions pertains mainly to the fulfillment of the teaching and learning process. The academic experience incorporates other institution areas, including educational services, administrative services, facilities, staff, and the social environment (Bagur-Femenías et al., 2020; DeShields et al., 2005). Moreover, for HEIs to achieve a world-class status, a set of service quality standards that guide how the institution works and serves the needs of students, faculty, and its external partners is imminent (Altbach & Samil, 2011).

The trend toward achieving a world-class institution is becoming the primary focus not just of developed countries but also of HEIs in emerging countries. Globalisation, technological innovation, and transportation advancement lead to major growth in student mobility and service quality awareness in developing countries (OECD, 2022). However, in the context of developing countries, the service quality issue in higher education institutions has received limited attention. Take, for example, the Indonesian context; as one of the largest developing countries in the world, the work in this area is still limited in the scope of analysing customers' satisfaction on the partial areas of the HEIs services (Ghazi & Hilmansyah, 2021; Mariana & Redjeki, 2020; Sumarmi & Wahyuni, 2016). In the developing countries and Asian context, this issue needs further study, particularly in the scope of best practices for successful service quality implementation. There are still many HEIs in developing countries, particularly in Asian countries, that stand out from the world-class ranking (Mahadi, 2022; WENR, 2015). Hence, a current literature map that gives complete information for benchmarking for the development of service quality and additional directions of the issue is required to obtain lessons learned that are in accordance with the dynamics of global conversations.

Thus, this paper attempts to bridge the gap by identifying the essential attributes to establishing appropriate service quality in a higher education institution context. For this objective, a systematic literature review (SLR) was defined and conducted by adapting the SLR protocol from Kitchenham (2004) to study reputable scholarly literature related to HEIs' service quality. The findings are expected to enrich the body of knowledge in the area and serve as an additional reference to higher education institutions in

emerging economy countries in designing their future service excellence standard. Furthermore, the following questions were proposed to guide the execution of the SLR:

RQ1: What are the prevalent areas of study relevant to the service quality of HEIs?

RQ2: What are the main attributes highlighted by studies on HEIs' service quality?

The following sections of this paper include a description of the SLR procedure, the SLR findings, and a discussion of the pertinent findings and their implications.

## Methodology

In this paper, the authors conducted a systematic literature review (SLR) to identify, compile, and critically appraise studies related to service quality attributes in higher education institutions. The SLR technique seeks to discover, assess, interpret, and accumulate scientific studies in order to produce an objective summary of evidence pertinent to a research issue (Petticrew & Roberts, 2006). The SLR procedure in this paper adhered to the standards outlined by Kitchenham (2004), who presented a three-phase study protocol consisting of planning, conduction, and reporting.

### Planning phase

The authors determine the research objectives, search techniques, database selection, and inclusion/exclusion criteria during this step. As stated in the introduction, the objectives of this study are to investigate the core characteristics of an appropriate HEI's service quality and its future research directions.

The authors then define a database for searching journal article references produced between 2012 and 2022. The authors' search technique consisted of precise phrases and Boolean logic strategies, which will be described further in the conduction phase.

Table 1  
*Exclusion and Inclusion Criteria*

Code	Inclusion Criteria	Code	Exclusion Criteria
I1	Studies that present implementation planning, models, approaches, or techniques related to HEIs' service quality	E1	Studies related to the Implementation of HEIs' service quality from a partial point of view
I2	Studies that present evaluation approaches to HEIs' service quality	E2	Studies related to service quality outside the context of higher education institutions
I3	Studies that suggest attributes for HEIs' service quality based on best practices	E3	Studies related to higher education institutions' governance outside the context of service implementation or evaluation
I4	Studies that focus on HEIs service quality as a whole integrated unit	E4	Studies that are written in a language other than English
I5	Studies that are published as open-source journal articles	E5	Studies that do not fit into any inclusion criteria

The databases used in this study's search were Science Direct (Elsevier) and Web of Science (WoS). They were selected for their large and advanced search engines, which index publications from various sources and allow the use of complex boolean expressions and multiple filters to refine the results (Bramer et al., 2017). The authors set several inclusion and exclusion criteria to choose the relevant research, shown in Table 1.

Besides the inclusion and exclusion criteria, three additional filters were established to choose the most pertinent papers for the SLR analysis. **1)** Identification of duplicate manuscripts in the databases, **2)** Title and abstract reading of the manuscripts to confirm inclusion and exclusion criteria (I5 and E4), and **3)** Analysis of the selected manuscripts to identify primary research by referring to the inclusion and exclusion criteria. The detailed process of the literature search is described in the next phase.

### **Conduction phase**

In this phase, the authors applied all the inclusion and exclusion criteria along with the additional filters on the database search engine to obtain eligible studies to be reviewed. This phase consists of three main steps.

First, the inclusion criteria were adapted from Argenti (2009), who highlighted that a strategic corporate initiative's proper implementation must be analysed in terms of planning, implementation, and evaluation (I1, I2, I3). The review's focus on research that fully addresses HEI service quality (I4) is to grasp the interrelated components that support a proper service framework in higher education institutions. By increasing accessibility and knowledge exchange, choosing open-source licensed studies (I5) aligns with ethical issues. Open access papers encourage broader knowledge dissemination by guaranteeing that findings are freely available to a wider audience, bolstering transparency and reproducibility (Samota & Davey, 2021).

Secondly, the exclusion criteria were designed to ensure a comprehensive exploration of HEI service quality. Articles that offered a partial perspective, concentrating solely on specific segments or limited aspects of service quality within higher education institutions, were excluded (E1). Similarly, studies that did not contribute to the holistic understanding of HEI service quality or were tangentially related to this context were omitted (E2, E3).

As the next step, the authors employed precise phrase and Boolean logic strategies within Science Direct and Web of Science databases as the search strategy. This strategy was applied by utilising specific search strings and logical operators to maximise the relevance of retrieved articles. The authors applied boolean logic and used the keywords "service quality" and "higher education" to encompass articles that precisely focused on the intersection of these themes. The search term was inserted into each database, yielding 2,161 results.

Next, the authors established the temporal coverage by deciding that only studies published during the past ten years would be included in this systematic review.

Only academic journal papers were included in the systematic review. The primary rationale for exclusively including academic journal publications in a systematic review is the stringent peer-review process these studies undergo before publication (Xiao & Watson, 2019).

The authors included only full-text publications, and each manuscript was independently screened in its entirety for eligibility. No ethical approval was required as only open-source publications under the Creative Commons license were used in this systematic review. This license type permits individuals to copy, redistribute, evaluate, transmit and adapt the work provided the original work and source are appropriately cited (Creative Commons, 2022). As a result, the usage of such licenses in publications aligned with ethical principles, ensuring compliance without the need for official ethical approval.

Furthermore, the data collection methods include data extraction steps using the Mendeley reference manager to aid in extracting the final studies to be included. This process aimed to extract key variables and relevant information from each selected study. The extraction criteria were meticulously defined to ensure consistency in the selection of studies, focusing on characteristics aligned with the aforementioned inclusion and exclusion criteria and the review's objectives. Studies that did not fit the review's timespan, filters, and other inclusion criteria were excluded. At the end of the inclusion process, 28 publications that met the criteria remained.

### **Reporting phase**

At this stage, the authors finalised the review process and started to work on compiling the main findings related to the attributes of service quality. A visual summary of the data selection, extraction, and analysis processes is described in Figure 1. Then table 2 presents the references of the 28 studies analysed in this SLR. Furthermore, the detailed systematic review report is presented in the results and discussion section.

Table 2  
*List of selected studies*

Code	References	Code	References	Code	References
P1	(Rahman et al., 2016)	P10	(Mattah et al., 2018)	P23	(Chui et al., 2016)
P2	(Danjuma & Rasli, 2012)	P11	(Pedro et al., 2018)	P24	(Yousapronpaiboon, 2014)
P3	(Mustaffa et al., 2016)	P12	(Jovičić et al., 2020)	P25	(Yanova, 2015)
P4	(Kökalan et al., 2022)	P13	(Saliba & Zoran, 2019)	P26	(Štefko et al., 2015)
P5	(Jadrić et al., 2022)	P18	(Moldovan, 2012)	P27	(Dursun et al., 2013)
P6	(Magasi et al., 2022)	P19	(Cardona & Bravo, 2012)	P28	(Kogovsek & Kogovsek, 2013)
P7	(Chi, 2022)	P20	(Jiewanto et al., 2012)		
P8	(Yılmaz & Temizkan, 2022)	P21	(Akhlaghi et al., 2012)		
P9	(Rozak et al., 2022)	P22	(Keçetep & Özkan, 2014)		

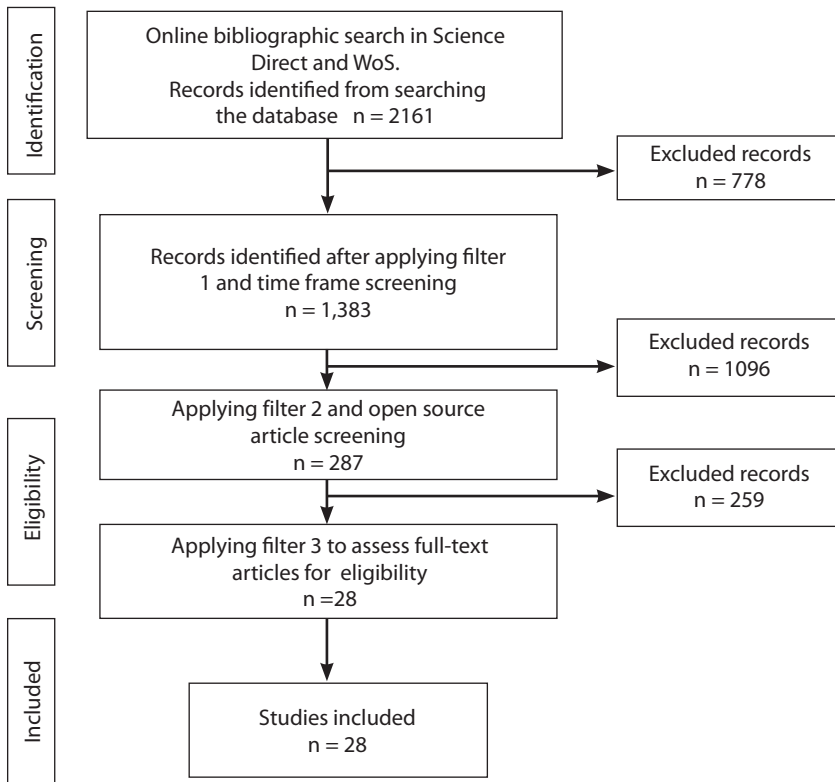


Figure 1. The data selection, extraction, and analysis process

## Results and discussion

This section describes the relevant variables associated with the quality service attributes in the higher education context according to the selected literature in Table 2. The authors begin by outlining the trends of topics within the domain of HEI service quality studies. The discussion then shifts to the essential attributes of HEI service quality. Finally, based on the reviewed literature, the authors describe future directions of studies on HEI service quality.

### Cluster of issues

Our study identified four significant issues that emerged from the literature review: 1) the importance and implementation of quality services, 2) service quality evaluation, 3) the roles of digital technology in HEIs service quality, and 4) stakeholders' retention. The clustering of issues was determined by analysing keywords and research objectives found within each study. By scrutinising the content of the literature, the authors have discerned reoccurring themes and focus areas, which we have correlated with the research objectives and keywords specified in the studies. During this procedure, we condensed and categorised comparable topics, recognising four distinct clusters.

Table 3 summarises each study and its corresponding issue. In the following, we discuss the characteristics of each approach.

Table 3  
The cluster of issues generated from the studies

Cluster	Issue	Studies
A	The importance and implementation of quality services	[P1],[P6], [P7], [P8], [P9], [P10], [P12], [P14],[P15], [P17], [P18], [P21], [P23], [P24], [P26], [P28]
B	service quality evaluation	[P6],[P12], [P13], [P19], [P20], [P23], [P24], [P27]
C	the roles of digital technology in HEIs service quality	[P1], [P5], [P6], [P28] [P16], [P11],[P26]
D	Stakeholders' retention	[P6], [P7], [P8], [P10], [P14], [P25],[P28]

### The importance and implementation of quality services

Service quality is a complex subject. It ranges from institutional practices to the use of particular strategies and technologies to improve and monitor quality standards (Moldovan, 2012). Nevertheless, many scholars agree that service quality is vital for an institution's existence and growth. According to Rahman et al. (2016), Service quality is the catalyst that influences one performance variable to affect another. In other words, Service quality measures how an institution understands its users' needs and fulfils their expectations (Danjum & Rasli, 2012; Pedro et al., 2018).

In this paper, we refer to Quality service implementation as a systematic process involving various stakeholders to ensure the standards and continuous improvement of educational services (Salmuni et al., 2016). In terms of its implementation in a university setting, quality service encompasses a wide range of activities, including designing and delivering academic programs, student support services, and administrative processes (Zuhairi et al., 2020). Those definitions highlight the significance of high-quality education and underline the essential contribution of different university elements in guaranteeing a well-rounded and efficient educational experience for university students, staff, and other relevant stakeholders.

The reviewed studies in Table 3 (cluster a) indicate that service quality is not just associated with the corporate business but has also become an essential component of higher education. Implementing service quality in higher education can significantly contribute and provide input that will be useful for management and staff to continue improving the quality of education (Saliba & Zoran, 2019; Yousapronpaiboon, 2014). Other primary findings show that service quality is fundamental to higher education institutions for various reasons. Establishing good service quality is beneficial for gaining competitive advantages in national and international scopes (Ponce & Fierro, 2017), fulfilling government mandates (Jiewanto et al., 2012), and meeting public expectations (Kökalan et al., 2022; Mattah et al., 2018; Rahman et al., 2016).

Moreover, quality service delivery is essential for HEIs to meet the expectations of their students and staff. Quality service delivery ensures that students have the best possible academic experience and that staff has a conducive working environment (Bagur-Femenías et al., 2020). Thus, improving the quality of services offered is a crucial strategic tool for higher education institutions to maintain their reputation, increase their stakeholders' satisfaction and expand public recognition.

### **Service quality evaluation**

Evaluating quality services has become an important task to direct actions that may positively affect the quality of the service provided by higher education institutions. The selected studies in this paper indicate how service quality in HEIs is measured.

The findings imply that most of the studies focused on how SERVQUAL was used as a tool to evaluate or measure the service quality performance in HEIs. The tool developed by Parasuraman et al. has been the most popular method for measuring service quality in education (1985). As displayed in Table 3 (cluster b), all of the studies adapted SERVQUAL as the instrument to evaluate HEIs' customer expectations and their perceptions of the service quality (Chui et al., 2016; Dursun et al., 2013; Fuchs et al., 2022; Jiewanto et al., 2012; Jovičić et al., 2020; Magasi et al., 2022; Pedro et al., 2018; Saliba & Zoran, 2019).

The reviewed studies showed that scholars had used five dimensions of SERVQUAL as their basis of evaluation. The five dimensions are described below:

- a. Reliability refers to the ability to provide the offered service consistently and accurately.
- b. Responsiveness refers to the commitment to assisting clients and delivering fast service.
- c. Assurance refers to the staff's knowledge, courtesy, and ability to convey trust and confidence in the client towards the service provider (HEIs).
- d. Empathy refers to providing caring, personalised attention to clients.
- e. Tangibles refer to the quality of physical infrastructures, personnel, and communication materials.

The evaluation through those dimensions can help identify areas in which HEIs can improve, such as student satisfaction, faculty quality, and the school's curriculum (Jiewanto et al., 2012; Latif et al., 2019). It can also help with budgeting and resource allocation, allowing the university to make the most of its money and resources (Jovičić et al., 2020).

Acknowledging the importance of comprehensive evaluation approaches in analysing service quality, it is also important to consider alternative methods that encompass stakeholder expectations and perceptions. Although the SERVQUAL scale focuses primarily on perceptions, including expectation-based assessments enhances service quality evaluation. In addition to SERVQUAL, other approaches such as Importance-Performance Analysis (Martilla & James, 1977) and UnivQual (Marimon et al., 2019)



offer nuanced perspectives by incorporating both expectations and perceptions. These approaches evaluate not only stakeholder experiences but also the alignment between expected and actual service standards. Integrating such approaches into measurement would broaden our understanding of service quality evaluation by investigating various methodologies that encompass both stakeholder expectations and perceptions, resulting in a broader evaluation of service quality within higher education institutions.

Evaluation of service quality also helps universities to maintain a high level of accountability and Transparency (Magasi et al., 2022; Yousapronpaiboon, 2014), allowing them to show that they are providing quality education to their students and encouraging a positive working environment to the staff (Fuchs et al., 2022). In other words, evaluating service quality assists HEIs in identifying areas for enhancement, developing strategies to improve the educational experiences, and measuring the performance of services in meeting the stakeholders' needs.

### **The role of digital technology in HEI's service quality**

Based on the reviewed literature, the authors have identified that digital technology has become an integral part of higher education institutions and has been proven to significantly improve the quality of services they provide (Rahman et al., 2016). Digital technology has improved communication between potential students, existing students, faculty, and staff, enabling them to access information quickly and conveniently from anywhere (Saadon & Liong, 2012). Digital technologies are being used to enhance teaching and learning experiences. Digital assessment tools, Learning Management Systems (LMS), and online course delivery are all part of this. For instance, university apps and virtual learning are being utilised to manage student records and enable students to achieve performance on their campus (Nkomo et al., 2021).

In terms of HEIs' governance and administration, digital technologies can increase quality in various ways. Universities can use analytics to predict quality issues and maintenance needs by monitoring procedures and collecting real-time data (Pedro et al., 2018). This includes everything from admissions and registration to scheduling and student records management. Digital payments, digital procurement, and online recruiting are some examples of this. As pinpointed by Hashim et al. (2022), this practice of digital transformation in higher education institutions will determine the future roadmap to a sustainable education management strategy and educational improvements.

By automating tedious procedures, digital technology has also enabled higher education institutions to lower expenses and improve efficiency (Štefko et al., 2015). Moreover, due to the pandemic and the new normal, digitising service quality has become increasingly important, and it has "compelled" institutions to provide more interactive and engaging learning experiences. (Bao, 2020; Jadrić et al., 2022). The objective is to utilise technology in a manner that not only reproduces an existing service in a digital format but also substantially improves that service. In other words, integrating digital

technology into all areas of a higher education institution fundamentally changes how it operates and delivers value to its stakeholders.

In summary, the analysed studies highlighted that digital technology has enabled institutions to provide better customer service by enabling stakeholders to access information promptly and securely. These advantages of digital technology have made higher education institutions more efficient and effective in meeting their stakeholders' needs. Thus, in a fast-changing educational landscape, digital transformation has become a key strategic approach that assists HEIs in staying competitive and relevant.

### **Stakeholders' retention**

Another important issue from the reviewed literature is the significance of stakeholders' retention as one of the primary service quality objectives. In this context, stakeholders refer to the users of the services provided by higher education institutions, including students, lecturers, staff, and prospective students. This cluster adds another aspect to evaluating HEIs' service quality. In the previous service quality evaluation cluster, the evaluation that concentrated on five dimensions neglected the retention of stakeholders. Thus, the authors added the retention of stakeholders as a distinct cluster for this reason.

Stakeholder retention serves as a crucial metric that reflects the effectiveness of service quality. Retention is strongly related to service quality since it represents the conclusion of students' and the staff's holistic experiences within the institution, including academic satisfaction, overall engagement, support networks, and a sense of belonging (Addison & Williams, 2023). This inclusion is consistent with the broader notion that retention is a consequential outcome that is heavily influenced by the overall quality of services delivered (Abbas, 2020; Khan et al., 2021). Hence, while not explicitly included in the service quality evaluation cluster in this paper, stakeholder retention has emerged as a distinct cluster that serves as an important indicator closely related to service quality evaluation in the context of higher education institutions.

Based on the analysed studies, stakeholders' retention is associated with the ability of a higher education institution to ensure that students remain enrolled, satisfied, and complete their degree and to ensure the loyalty of the academic staff (Magasi et al., 2022; Mattah et al., 2018). The findings showed that there are two main strategies HEIs can use to maintain and increase the stakeholders' retention. First, HEIs need to create a supportive and inclusive environment that encourages students and staff to stay by providing adequate resources and support services, such as mental health services and career counselling (Kogovsek & Kogovsek, 2013; Yousapronpaiboon, 2014).

Second, universities need to focus on creating meaningful learning and working experiences. This includes upgrading teaching staff and infrastructures providing digital facilities and flexible learning environments (Chi, 2022). Additionally, higher education institutions should look for ways to better integrate technology into their curriculum and administrative process, as this can improve student experience and staff efficiency (Štefko et al., 2015; Yanova, 2015).

In today's intensely competitive higher education market, it is vital to design approaches to ensure that the service meets stakeholders' expectations. This expectation is a source of competitive advantage that can result in the retention of students and staff.

### ***The essential attributes of HEI's service quality***

Following the findings in the reviewed studies, the authors identified that service quality attributes in higher education institutions could be divided into human and non-human based attributes. Human attributes comprise educational and administrative quality, while infrastructure and branding quality shape non-human attributes. The detailed attributes identified in this SLR research are shown in Table 4 and Table 5. It should be noted that similar attributes may appear in the literature under slightly different names.

Table 4  
*Human attributes in HEIs' service quality*

Human Attributes	variables	Studies
Educational Quality	Quality of Pedagogical Instruction	[P6], [P7], [P8], [P9], [P11], [P13], [P16], [P17], [P25]
	Instructors' Interpersonal Skills and competence	[P3], [P7], [P19], [P24], [P27], [P28], [P21]
Administrative Quality	Staff Attitude and Integrity	[P2], [P3], [P4], [P5], [P12], [P14], [P15], [P18], [P20], [P23], [P24], [P25]
	Administrative Transparency and efficiency	[P2], [P5], [P9], [P10], [P12], [P22], [P23], [P24], [P26], [P27]

The table above illustrates the human attributes associated with proper service quality. Overall, the SLR findings indicate that there are two core attributes related to human factors in delivering a quality service. Firstly, educational quality was identified as an imminent attribute shaping service quality. More than half of the total studies stated that the quality of pedagogy delivery plays a vital role in the scope of education.

Several studies found that students' satisfaction with their higher education experience was significantly higher when they were exposed to high-quality pedagogical delivery (Chi, 2022; Magasi et al., 2022). Another study suggests that students were more satisfied with their lecturers when they had good interpersonal skills and interactive teaching methods and provided meaningful feedback as pedagogical support (Borishade et al., 2021). These findings demonstrate that user satisfaction directly results from the quality of services and that the significance of pedagogical delivery and competence can enhance the quality level.

As the second human-related attribute, administrative and support staff quality is fundamental since they are also responsible for delivering the services. As synthesised from the reviewed studies, administrative and support staff's excellent integrity and attitude positively correlated with a higher level of user satisfaction and engagement with the institution (Jovičić et al., 2020; Yanova, 2015; Yılmaz & Temizkan, 2022). Other

studies also found that administrative Transparency and efficiency were highly valued by students and increased their level of trust in the university (Dursun et al., 2013; Jiewanto et al., 2012; Rozak et al., 2022). Administrative transparency is essential to ensure service quality because it allows users or clients to understand how services are being provided and what is being done to ensure the quality and accountability of the services being managed (Koudiki & Janardhanam, 2017). This administrative efficiency and transparency have become essential standards for ensuring that users or students receive timely and dependable service.

Based on these data, it is reasonable to conclude that excellent educational and administrative delivery are significant aspects of providing quality services. This quality service level will increase satisfaction and trustworthiness at higher education institutions.

Table 5  
*Non-human attributes in HEIs' service quality*

Non-human Attributes	variables	Sources
Learning Infrastructure Quality	Curriculum	[P5], [P9], [P10], [P11], [P12], [P15]
	Physical Infrastructure	[P7], [P15], [P16], [P17]
	Digital Infrastructure	[P10], [P19] [P16] [P2]
Branding Quality	Website and E-marketing	[P23], [P26], [P28], [P13], [P15], [P25]
	Internationalisation	[P20], [P26], [P27],[P28]

Aside from the human factors of service quality, the reviewed studies also pointed out the imminent role of non-human factors. As can be seen in Table 5, the findings suggested that non-human attributes are as crucial as pedagogical and administrative delivery. Manea and Iatagan (2015) and (Chi, 2022) suggest that learning infrastructure, such as comprehensive curriculum and learning facilities, complement the educational delivery and become the students' main satisfactory factor. This is explained by the fact that Improved infrastructure can lead to improved learning and working climates in which students, lecturers, and staff feel secure and supported (Cardona & Bravo, 2012; Wilson, 2021).

When referring to the current era, Yanova (2014) and Chui et al. (2016) described that digital infrastructure and high-quality IT systems will allow HEIs' administrators to enter, store, and retrieve data more efficiently, which is critical for practical customer support and a satisfactory service experience. In terms of the teaching and learning process, by having these digital resources, students and lecturers can gain access to high-quality instructional materials, participate in collaborative learning activities, and enhance their critical thinking abilities (Danjuma & Rasli, 2012). Subsequently, the improved learning Infrastructure can assist in elevating the quality of higher

education by providing the resources needed for a more innovative learning process and efficient administrative services.

In addition to the learning infrastructure quality, the findings in Table 5 suggest that institutional branding contributes to the development of service quality. In the current competitive environment of the higher education sector, branding is increasingly used as a strategy to differentiate HEIs from their competition (Clark et al., 2020). As shown in Table 5, websites, e-marketing, and internationalisation are considered the key variables that reflect an institution's level of service quality. Users anticipate a particular degree of service from institutions with established reputations; hence, higher education institutions with strong brands are typically associated with high-quality service (Kogovsek & Kogovsek, 2013).

Similarly, Štefko et al. (2015) suggest a significant correlation between the overall image of a higher education institution and the use of updated digital marketing tools, including its website. This statement is in line with Makrydakis (2021), who stated that through their websites and social media platforms, HEIs could share their achievements, cultivate relationships with potential students and alumni/alumnae, and enhance their brand image.

This type of marketing initiative can help increase the visibility and awareness of an HEI and promote its strengths and achievements to international audiences (Chui et al., 2016; Jiewanto et al., 2012). Thus, these findings indicate that a well-designed branding strategy that maximises digital technology can enhance an institution's reputation and rankings and lead to a larger international market.

## **Conclusion**

The findings of the first study objective enabled the authors to identify four major clusters of topics, each comprising the reviewed studies on related themes. The identified clusters were labelled: 1) the importance and implementation of quality services; 2) service quality evaluation; 3) the roles of digital technology in HEIs service quality; and 4) stakeholders' retention. These clusters demonstrate the trends in quality service study and its future directions. In sum, based on the clustered topics, future studies may include exploring how HEIs measure and monitor service quality, investigating the role of technology in improving service quality and examining the factors that influence stakeholders' loyalty to HEIs.

Regarding the second study objective, human and non-human attributes were identified as the pinpointed dimensions in implementing an appropriate quality service in HEIs. The authors managed to extract a series of variables related to those attributes. According to the literature studied, human-related attributes are shaped by the quality of instructors' educational and staff administrative delivery. These variables are essential in an HEI service quality because they contribute to the overall student experience as the primary stakeholder. A high-quality pedagogical delivery will allow students to learn and develop in a higher education context. As the supporting element,

the staff will provide the infrastructure and services necessary for the institution to function. Both are necessary for providing a top-notch university experience.

As for the non-human attributes, the learning infrastructure and branding are imminent for enhancing the institutions' service quality. The learning infrastructure in higher education institutions includes classrooms, libraries, laboratories, and other learning facilities. It also contains the available digital technology and tools for students and faculty. Branding helps establish the institutions' identity and public recognition. It conveys the principles and mission of the university and attracts prospective students, teachers, and staff. When these two elements are in place, the institution can improve the quality of its services and the learning environment for its stakeholders.

This paper has certain limitations. The primary one is using two databases and excluding publications from conference proceedings and government or non-governmental organisations, significantly reducing the sample size. The review is limited to the databases and search terms used. There may be relevant papers in other databases that did not match the search terms. Consequently, future research should investigate broadening the coverage beyond the two databases and include publications from a variety of sources, such as conference proceedings and government or non-governmental organisations. This increase in sample size will give a more comprehensive panorama of research, enriching insights and recommendations for improving HEI service quality.

Secondly, our deductive and inductive approach for developing structural dimensions and related categories has some limitations because it involves the researcher's judgment. A replication using an inductive or more abductive method may aid in discovering new categories and confirming those utilised in this study.

Additionally, this paper provides service quality attributes elaborated from the literature, which can offer several recommendations. First, the generated attributes can help higher education institutions (HEIs) to identify areas of improvement in their service quality and make targeted changes to improve the overall experience of their stakeholders. This can be accomplished by performing frequent evaluations and surveys based on the elaborated attributes. Secondly, HEIs are recommended to use the data in this paper to benchmark their service quality against competitors and develop strategies to remain competitive in their respective markets. For instance, by pinpointing specific shortcomings and strengths compared to direct competitors, HEIs can tailor targeted improvement strategies, like implementing faculty training programs for enhanced teaching methodologies or investing in state-of-the-art learning facilities. This approach will empower institutions to proactively address deficiencies and strategically bolster their competitive edge in the higher education landscape.

Furthermore, the study suggests a need for a more concentrated investigation into the exact function of technology in enhancing service quality in HEIs. Studies could evaluate the effectiveness of particular technological interventions, including virtual classrooms, AI-powered learning platforms, and personalised digital support systems,

in terms of their influence on improving the overall experience of students and the efficiency of service delivery. Finally, the elaborated attributes with their associated variables can offer direction to academics who study service quality as a crucial component of an institution's competitive strategy.

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# Glavna obilježja kvalitete usluge u visokoškolskim ustanovama: sustavni pregled literature

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## Sažetak

*U ovom radu predstavljeni su rezultati sustavnoga pregleda literature (SPL) akademskih istraživanja povezanih s karakteristikama kvalitete usluga u visokoškolskim ustanovama. Pregledom literature nastoji se postići dva glavna cilja: identificirati trendove u temama koje se proučavaju te važne čimbenike koji utječu na poboljšanje kvalitete usluga. Provedena je sveobuhvatna pretraga relevantnih baza podataka objavljenih studija u razdoblju od 2012. do 2022. godine kako bi se identificirali recenzirani članci koji ispunjavaju kriterije za uključivanje u pregled. Pretragom je dobiveno ukupno 28 relevantnih studija koje su ocijenjene u skladu s ciljevima studije. SPL izvješće identificiralo je četiri skupine pitanja koja se odnose na kvalitetu usluga: važnost kvalitetnih usluga, procjena kvalitete, uloga digitalne tehnologije i zadržavanje dionika. Očekuje se da će obilježja navedena u ovome radu pomoći visokim učilištima (VU) u zemljama u razvoju - posebice u zemljama u razvoju, identificirati područja poboljšanja kvalitete usluga koje pružaju i izvršiti ciljane prilagodbe kako bi se poboljšalo cjelokupno iskustvo njihovih dionika.*

**Ključne riječi:** iskustvo usluge; obilježja kvalitete usluga; sustavni pregled literature; visoka učilišta.

## Uvod

U trenutačnom konkurentnom okružju visokih učilišta (VU) sve je bitnije da zaposlenici uprava počnu obraćati posebnu pozornost na kvalitetu usluga kako bi zadovoljili potrebe svojih dionika. Obrazovni sektor razvija se ubrzanim tempom, a trenutačno ima status punopravne uslužne industrije na globalnoj razini. Tijekom posljednjega desetljeća visoka su se učilišta široko doživljavala kao dio uslužne djelatnosti (Galeeva, 2016; Ghazi i Hilmansyah, 2021). Kao glavni dionici visokih učilišta, studenti su željeli višu kvalitetu obrazovanja. Ovo je obilježje općenito povezana s visokom stopom upisa i zadržavanja studenata u visokoškolskim ustanovama. Iz toga razloga sveučilišta i fakulteti širom svijeta nastoje svojim studentima pružiti relevantno, zanimljivo i edukativno iskustvo učenja koje pokazuje njihovu predanost kvalitetnom obrazovanju (Latif i sur., 2019).

Rastuća konkurencija za povećanje stope zadržavanja i upisa dovela je do uvođenja paradigme „studenti su naši klijenti i kupci” u model pružanja visokoga obrazovanja.

Kasnije je ovaj fenomen privukao pozornost mnogih znanstvenika na proučavanje i naglašavanje važnosti kvalitete usluge u visokoškolskim ustanovama (Mariana i Redjeki, 2020; Marimon i sur., 2019; Yeo, 2008; Zakariah i sur., 2016). Prethodna istraživanja ukazuju na potrebu da se ustanove visokoga obrazovanja prilagode i procijene akademsko iskustvo koje pružaju.

Akademsko iskustvo koje pružaju visokoškolske ustanove uglavnom se odnosi na provedbu procesa poučavanja i učenja. Akademsko iskustvo uključuje i druga područja ustanove, uključujući obrazovne usluge, administrativne usluge, opremu, osoblje i socijalno okruženje (Bagur-Femenías i sur., 2020; DeShields i sur, 2005.). Štoviše, da bi visoka učilišta postigla status svjetske klase, potreban je skup standarda kvalitete usluge koji određuju kako institucija funkcionira i zadovoljava potrebe studenata, nastavnika i vanjskih partnera (Altbach i Samil, 2011).

Trend stvaranja obrazovne ustanove svjetske klase postaje glavni zadatak ne samo razvijenih zemalja, već i visokih učilišta zemalja u razvoju. Globalizacija, tehnološke inovacije i razvoj prijevoza dovode do značajnoga povećanja mobilnosti učenika i veće svijesti o kvaliteti usluga u zemljama u razvoju (OECD, 2022). Međutim, u kontekstu zemalja u razvoju, pitanju kvalitete usluga u visokoškolskim ustanovama posvećuje se ograničena pažnja. U tom smislu, Indonezija može poslužiti kao primjer. Budući da je jedna od najvećih zemalja svijeta, rad u ovom području još uvijek je ograničen u opsegu analiza zadovoljstva kupaca odvojenim područjima usluga visokih učilišta (Ghozi i Hilmansyah, 2021; Mariana i Redjeki, 2020; Sumarmi i Wahyuni, 2016). U kontekstu zemalja u razvoju i Azije, ovo pitanje treba dodatno istražiti, posebice u kontekstu najboljih praksi za uspješnu provedbu sustava osiguranja kvalitete usluge. U zemljama u razvoju, posebno u azijskim zemljama, još uvijek postoji mnogo visokoškolskih ustanova koja se ističu na ljestvici svjetske klase (Mahadi, 2022; WENR, 2015). Stoga je potreban dijagramski prikaz aktualne literature za sustavno vrednovanje razvoja kvalitete usluge i dodatne smjernice vezane uz ovo pitanje što bi poslužilo kao polazište za usklađivanje s dinamikom globalnih kretanja.

Stoga se u ovom radu pokušalo riješiti navedeni jaz određivanjem osnovnih čimbenika kako bi se osigurala odgovarajuća kvaliteta usluge u kontekstu visokoškolske ustanove. U tu svrhu razvijen je i proveden sustavni pregled literature (SPL) prilagođavanjem Kitchenhamova protokola (2004) za proučavanje relevantne akademske literature koja se odnosi na kvalitetu usluge u visokoškolskim ustanovama. Očekuje se da će rezultati obogatiti znanje u ovom području i pružiti dodatnu referencu za visokoškolske ustanove zemalja u razvoju u kontekstu dizajniranja njihovih budućih standarda kvalitete usluge. Osim toga, predložena su sljedeća pitanja koja će biti smjernice u provedbi SPLa:

IP1: Koja su glavna područja studija relevantna za kvalitetu usluga na visokim učilištima?

IP2: Koje su glavne karakteristike istaknute studijama kvalitete usluga na visokim učilištima?

U daljnjem tekstu sljedi opis postupka SPL-a, rezultati analize SPL-a i rasprava o relevantnim rezultatima i njihovim implikacijama.

## Metodologija

U ovom su radu autori proveli sustavni pregled literature (SPL) kako bi identificirali, saželi i kritički procijenili studije povezane s karakteristikama kvalitete usluge u visokoškolskim ustanovama. Cilj je metode SPL-a identificirati, procijeniti, protumačiti i generalizirati znanstvena istraživanja kako bi se dobio objektivni pregled dokaza relevantnih za problem istraživanja (Petticrew i Roberts, 2006). Postupak SPL-a opisan u ovom radu bio je u skladu sa standardima koje je postavio Kitchenham (2004), predstavivši protokol istraživanja koji se sastoji od tri etape: planiranja, provođenja i izvještavanja.

### Etapa planiranja

U ovoj fazi autori definiraju ciljeve istraživanja, metode pretraživanja, odabir baza podataka i kriterije uključivanja/isključivanja. Kao što je navedeno u uvodu, svrha je ove studije istražiti glavna obilježja kvalitete usluga na odgovarajućem visokom učilištu i njegove buduće smjerove istraživanja.

Autori zatim definiraju bazu podataka kako bi pronašli reference na članke objavljene između 2012. i 2022. Tehnika pretraživanja koju su predložili autori sastojala se od točnih fraza i strategija Booleove logike koje će biti opisane kasnije u etapi provođenja.

U pretraživanjima u ovoj studiji korištene su baze podataka Science Direct (Elsevier) i Web of Science (WoS). Odabrane su zbog svojih velikih i naprednih tražilica koje indeksiraju publikacije iz različitih izvora i omogućuju upotrebu sofisticiranih Booleovih logičkih izraza i mnogih filtara za pročišćavanje rezultata (Bramer i sur., 2017). Autori su utvrdili nekoliko kriterija uključivanja i isključivanja za odabir odgovarajuće studije prikazane u Tablici 1.

Tablica 1

*Kriteriji isključivanja i uključivanja*

Kod	Kriteriji uključivanja	Kod	Kriteriji isključivanja
I1	Studije koje predstavljaju planiranje provedbe, modele, pristupe ili metode povezane s kvalitetom usluga na visokim učilištima	E1	Studije s nepotpunom perspektivom povezane s provedbom kvalitete usluge na visokim učilištima
I2	Studije koje predstavljaju pristupe procjeni kvalitete usluga na visokim učilištima	E2	Studije povezane s kvalitetom usluga izvan konteksta visokoškolskih ustanova
I3	Studije koje omogućuju utvrđivanje karakteristika kvalitete usluga na visokim učilištima na temelju najbolje prakse	E3	Studije povezane s upravljanjem visokoškolskim ustanovama izvan konteksta provedbe ili ocjenjivanja usluga
I4	Studije usmjerene na kvalitetu usluga visokih učilišta kao jedinstvenu integriranu jedinicu	E4	Studije napisane na jeziku koji nije engleski
I5	Studije objavljene kao članci u časopisima otvorenoga pristupa	E5	Studije koje ne zadovoljavaju nijedan kriterij uključivanja

Osim kriterija za uključivanje i isključivanje, postavljena su tri dodatna filtra za odabir najprikladnijih članaka za SPL analizu. 1) Prepoznavanje dupliciranih rukopisa u bazama podataka, 2) Čitanje naslova i bilješki rukopisa kako bi se potvrdili kriteriji za uključivanje i isključivanje (I5 i I4) te 3) Analiza odabranih rukopisa radi utvrđivanja primarnih istraživanja, uzimajući u obzir kriterije uključivanja i isključivanja. Detaljan postupak pretraživanja literature opisan je u sljedećem koraku.

### ***Etapa provođenja***

U ovoj su etapi autori primijenili sve kriterije uključivanja i isključivanja, kao i dodatne filtre u tražilici baza podataka kako bi pronašli odgovarajuće studije za pregled. Ova faza ima tri glavna koraka.

Prvo, kriteriji za uključivanje preuzeti su (i prilagođeni) od Argentija (2009), koji je naglasio da se pravilna provedba strateške korporativne inicijative mora analizirati u smislu planiranja, provedbe i evaluacije (I1, I2, I3). Fokus pregleda je na studijama koje u potpunosti uzimaju u obzir kvalitetu skrbi na visokim učilištima (I4) kako bi se razumjele međusobno povezane komponente koje održavaju odgovarajuću strukturu usluga na visokim učilištima. Povećanjem dostupnosti i razmjene znanja, izbor licenciranih istraživanja otvorenoga koda (I5) u skladu je s etičkim razmatranjima. Članci s otvorenim pristupom promiču veće širenje znanja, jamčeći slobodan pristup rezultatima široj publici te povećavajući transparentnost i ponovljivost (Samota i Davey, 2021).

Drugo, kriteriji isključenja razvijeni su kako bi se osiguralo sveobuhvatno proučavanje kvalitete usluga na visokim učilištima. Članci koji su nudili nepotpune perspektive, koncentrirajući se isključivo na određene segmente ili ograničene aspekte kvalitete usluge u visokoškolskim ustanovama, bili su isključeni (E1). Slično tome, izostavljene su studije koje nisu pridonijele holističkom razumijevanju kvalitete usluga na sveučilištima ili su bile neizravno povezane s tim kontekstom (E2, E3).

Kao sljedeći korak, autori su kao strategiju pretraživanja koristili strategije pretraživanja točnih fraza uz korištenje Booleove logike u bazama podataka Science Direct i Web of Science. Ova je strategija primijenjena korištenjem posebnih nizova za pretraživanje i logičkih operatora kako bi se poboljšala relevantnost pronađenih članaka. Autori su primijenili Booleovu logiku i koristili ključne riječi „kvaliteta usluge” i „visoko obrazovanje” kako bi obuhvatili radove koji su se usredotočili na sjecište tih tema. Pojam za pretraživanje unesen je u svaku bazu podataka i dobiven je 2161 rezultat.

Autori su zatim uspostavili vremensku pokrivenost, odlučivši da će ovaj sustavni pregled uključivati samo studije objavljene u posljednjih deset godina. U sustavni pregled uključeni su samo članci iz akademskih časopisa. Glavno obrazloženje za uključivanje radova objavljenih isključivo u akademskim časopisima u sustavni pregled jest rigorozan postupak recenziranja kojem su ove studije podvrgnute prije objavljivanja (Xiao i Watson, 2019).

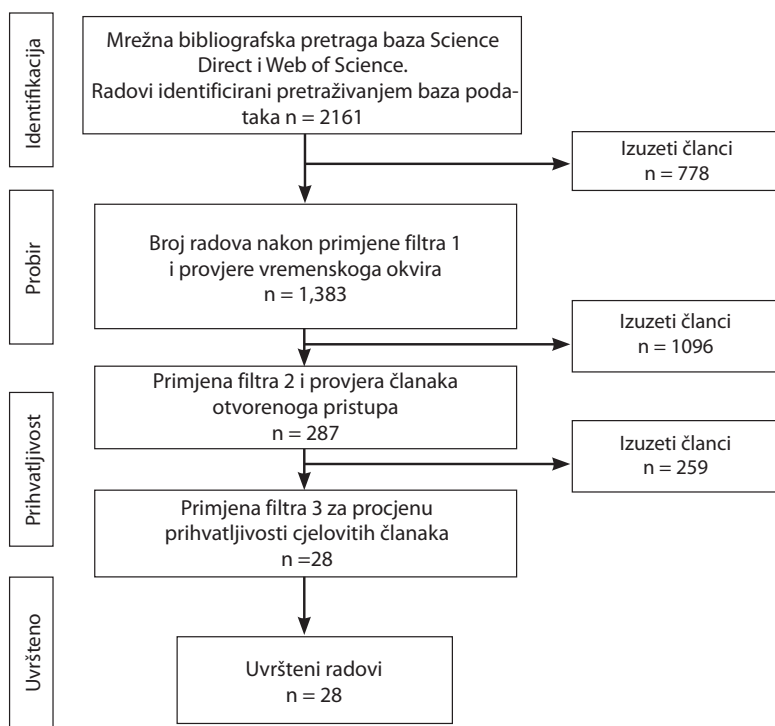
Autori su uključivali samo cjelovite publikacije, a prihvatljivost svakog zasebnoga rada testirana je neovisno i u potpunosti. Nije bilo potrebno etičko odobrenje jer je ovaj sustavni pregled koristio samo publikacije otvorenoga pristupa pod licencom Creative Commons. Ova vrsta licence omogućuje pojedincima da kopiraju, distribuiraju, ocjenjuju,

prenose i prilagođavaju djelo, pod uvjetom da su izvornik i izvor pravilno citirani (Creative Commons, 2022). Kao rezultat toga, uporaba takvih licenci u publikacijama u skladu je s etičkim načelima, osiguravajući njihovu usklađenost bez potrebe za službenim etičkim odobrenjem.

Osim toga, metode prikupljanja podataka uključuju korake dohvaćanja podataka pomoću Mendeley upravitelja referenci koji pomaže u odabiru konačnih studija za uključivanje. Ovim se postupkom nastojalo izvući ključne varijable i relevantne informacije iz svake odabrane studije. Kriteriji odabira pažljivo su definirani kako bi se osigurala dosljednost u odabiru studija, s posebnim naglaskom na karakteristike koje su u skladu s gore navedenim kriterijima uključivanja i isključivanja, kao i ciljevima pregleda. Studije koje nisu zadovoljile vremenski okvir pregleda, filtre i druge kriterije uključivanja bile su isključene. Na kraju postupka uvrštavanja na popis 28 publikacija zadovoljilo je kriterije.

### Etapa izvještavanja

U ovoj su etapi autori završili postupak pregleda i počeli raditi na sažimanju glavnih nalaza u vezi s karakteristikama kvalitete usluge. Vizualni sažetak procesa odabira, ekstrakcije i analize podataka prikazan je na Slici 1. Tablica 2 zatim prikazuje reference 28 radova analiziranih u ovom pregledu. Nadalje, detaljno se izvješće o sustavnom pregledu nalazi u odjeljku „Rezultati i rasprava”.



Slika 1. Postupak odabira, izdavanja i analize podataka



Tablica 2

*Popis odabranih istraživanja*

Kod	Reference	Kod	Reference	Kod	Reference
P1	(Rahman i sur., 2016)	P10	(Mattah i sur., 2018)	P23	(Chui i sur., 2016)
P2	(Danjuma i Rasli, 2012)	P11	(Pedro i sur., 2018)	P24	(Yousapronpaiboon, 2014)
P3	(Mustaffa i sur., 2016)	P12	(Jovičić i sur., 2020)	P25	(Yanova, 2015)
P4	(Kökalan i sur., 2022)	P13	(Saliba i Zoran, 2019)	P26	(Štefko i sur., 2015)
P5	(Jadrić i sur., 2022)	P18	(Moldovan, 2012)	P27	(Dursun i sur., 2013)
P6	(Magasi i sur., 2022)	P19	(Cardona i Bravo, 2012)	P28	(Kogovsek i Kogovsek, 2013)
P7	(Chi, 2022)	P20	(Jiewanto i sur., 2012)		
P8	(Yılmaz i Temizkan, 2022)	P21	(Akhlaghi i sur., 2012)		
P9	(Rozak i sur., 2022)	P22	(Keçetep i Özkan, 2014)		

## Rezultati i rasprava

U ovaom se odjeljku opisuju relevantne varijable povezane s odrednicama kvalitetne usluge u kontekstu visokoga obrazovanja, u skladu s odabranom literaturom u Tablici 2. Autori počinju opisivanjem trendova u razvoju tema u području istraživanja kvalitete usluga na visokim učilištima. Zatim se rasprava usmjerava na glavna obilježja kvalitete usluga na visokim učilištima. Naposljetku, na temelju pregledane literature, autori opisuju buduće smjerove istraživanja kvalitete usluga na visokim učilištima.

### Skup pitanja

Naše istraživanje identificiralo je četiri važna pitanja koja su proizašla iz pregleda literature: 1) važnost i primjena kvalitetnih usluga, 2) procjena kvalitete usluga, 3) uloga digitalne tehnologije u poboljšanju kvalitete usluga na visokim učilištima i 4) zadržavanje dionika. Grupiranje pitanja određeno je analizom ključnih riječi i istraživačkih ciljeva pronađenih unutar svake studije. Nakon temeljitoga pregleda sadržaja literature, autori su identificirali ponavljajuće teme i glavne smjerove koje smo povezali s ciljevima

Tablica 3

*Skup pitanja koja su proizašla iz provedenih istraživanja*

Skup	Pitanje	Istraživanja
A	važnost i primjena kvalitetnih usluga	[P1],[P6], [P7], [P8], [P9], [P10], [P12], [P14],[P15], [P17], [P18], [P21], [P23], [P24], [P26], [P28]
B	procjena kvalitete usluga	[P6],[P12], [P13], [P19], [P20], [P23], [P24], [P27]
C	uloga digitalnih tehnologija u poboljšanju kvalitete usluga na visokim učilištima	[P1], [P5], [P6], [P28] [P16], [P11],[P26]
D	zadržavanje dionika	[P6], [P7], [P8], [P10], [P14], [P25],[P28]

istraživanja i ključnim riječima navedenim u istraživanju. Tijekom ovoga postupka saželi smo i kategorizirali usporedive teme, identificirajući četiri različite skupine. Tablica 3 ukratko prikazuje svaku studiju i odgovarajući problem. U nastavku ćemo raspravljati o karakteristikama svakog pristupa.

### **Važnost i primjena kvalitetnih usluga**

Kvaliteta usluge je složeno pitanje. Raspon ove problematike je od institucionalne prakse do korištenja specifičnih strategija i tehnologija za poboljšanje i praćenje standarda kvalitete (Moldovan, 2012). Ipak, mnogi se znanstvenici slažu da je kvaliteta usluge od vitalne važnosti za postojanje i rast institucije. Prema Rahman i sur. (2016), kvaliteta usluge je katalizator koji utječe na jednu varijablu performansi kako bi ona utjecala na drugu. Drugim riječima, kvaliteta usluge određuje u kojoj mjeri institucija razumije potrebe svojih korisnika i ispunjava njihova očekivanja (Danjum i Rasli, 2012; Pedro i sur., 2018).

U ovom članku razmatramo implementaciju kvalitetnih usluga kao sustavan proces koji uključuje različite dionike kako bi se osigurali standardi i kontinuirano poboljšavalo obrazovne usluge (Salmuni i sur., 2016). Što se tiče provedbe u visokoškolskom okružju, kvalitetna usluga pokriva širok raspon aktivnosti, uključujući razvoj i provedbu akademskih programa, usluge podrške studentima i administrativne procese (Zuhairi i sur., 2020). Ove definicije naglašavaju važnost kvalitetnoga obrazovanja i značajan doprinos različitih sveučilišnih elemenata u pružanju sveobuhvatnoga i učinkovitoga obrazovnoga procesa za studente, sveučilišno osoblje i druge relevantne dionike.

Pregledane studije prikazane u Tablici 3 (skup A) pokazuju da kvaliteta usluge nije povezana samo s korporativnim poslovanjem, već je postala važna komponenta visokoga obrazovanja. Poboljšanje kvalitete usluga u visokom obrazovanju može značajno doprinijeti i pružiti informacije koje će biti korisne upravi i osoblju za daljnje poboljšanje kvalitete obrazovanja (Saliba i Zoran, 2019; Yousapronpaiboon, 2014). Ostali primarni nalazi pokazuju da je kvaliteta usluge od izuzetne važnosti za visokoškolske ustanove iz različitih razloga. Pružanje kvalitetnih usluga korisno za stjecanje konkurentne prednosti na nacionalnoj i međunarodnoj razini (Ponce i Fierro, 2017), obavljanje državnih zadataka (Jiewanto i sur., 2012) i ispunjavanje očekivanja javnosti (Kökalan i sur., 2022; Mattah i sur., 2018; Rahman i sur., 2016).

Osim toga, kvalitetno pružanje usluga ključno je za visoka učilišta kako bi ispunila očekivanja svojih studenata i osoblja. Kvalitetno pružanje usluga osigurava studentima najbolje akademsko iskustvo, a zaposlenicima povoljno radno okružje (Bagur-Femenías i sur., 2020). Stoga je poboljšanje kvalitete ponuđenih usluga ključno strateško sredstvo za visokoškolske ustanove da održe svoj ugled, povećaju zadovoljstvo dionika i povećaju društveno prihvaćanje.

### **Procjena kvalitete usluga**

Procjena kvalitete usluga postala je važan zadatak za vođenje aktivnosti koje mogu pozitivno utjecati na kvalitetu usluga koje pružaju visokoškolske ustanove. Odabrana

istraživanja predstavljena u ovom radu pokazuju kako se mjeri kvaliteta usluga na visokim učilištima.

Nalazi sugeriraju da se većina studija usredotočila na to kako je SERVQUAL korišten kao alat za procjenu ili mjerenje pokazatelja kvalitete usluga na visokim učilištima. Taj alat, koji su razvili Parasuraman i sur., predstavlja najpopularniju metodu mjerenja kvalitete usluga u obrazovanju (1985). Kao što je prikazano u Tablici 3 (skup B), sve su studije koristile SERVQUAL kao alat za procjenu očekivanja klijenata visokih učilišta i njihove percepcije kvalitete usluge (Chui i sur., 2016; Dursun i sur., 2013; Fuchs i sur., 2022; Jiewanto i sur., 2012; Jovičić i sur., 2020; Magasi i sur., 2022; Pedro i sur., 2018; Saliba i Zoran, 2019).

Pregledane studije pokazale su da su znanstvenici koristili pet aspekata SERVQUAL-a kao osnovu za procjenu. Ovih pet mjerenja opisano je u nastavku:

- a) Pouzdanost se odnosi na sposobnost pružanja ponuđenih usluga dosljedno i točno.
- b) Odgovornost znači predanost pomaganju kupcima i pružanju brze usluge.
- c) Osiguravanje se odnosi na znanje, uljudnost i sposobnost osoblja da stvori osjećaj povjerenja u davatelja usluga (visokoga učilišta) kod klijenata.
- d) Empatija je pokazivanje brižnoga i individualiziranoga pristupa klijentima.
- e) Materijalna dobra odnose se na kvalitetu fizičke infrastrukture, osoblja i komunikacijskoga materijala.

Ocjenjivanje ovim parametrima može pomoći u identificiranju područja u kojima visoka učilišta mogu poboljšati svoje performanse, poput zadovoljstva studenata, kvalitete nastavnoga osoblja te kurikula (Jiewanto i sur., 2012; Latif i sur., 2019). Također može pomoći u proračunu i raspodjeli resursa, omogućujući sveučilištu da iskoristi svoj novac i resurse na najbolji mogući način (Jovičić i sur., 2020).

Prepoznajući važnost integriranih pristupa procjeni kvalitete usluga, također je važno razmotriti alternativne metode koje uzimaju u obzir očekivanja i percepcije dionika. Iako se SERVQUAL-ova ljestvica prvenstveno fokusira na percepciju, uključivanje procjena temeljenih na očekivanjima poboljšava učinkovitost procjene kvalitete usluga. Uz SERVQUAL, drugi pristupi kao što su analiza značajnosti i učinkovitosti (Martilla i James, 1977) i UnivQual (Marimon i sur., 2019), nude detaljnije perspektive uključujući i očekivanja i percepcije. Ovi pristupi procjenjuju ne samo stručnost dionika, već i usklađenost s očekivanjima i stvarnim standardima usluga. Integriranje takvih pristupa u mjerenje proširilo bi naše razumijevanje procjene kvalitete usluga ispitivanjem različitih metodologija koje uzimaju u obzir i očekivanja i percepcije dionika, što bi dovelo do šire procjene kvalitete usluga u visokoškolskim ustanovama.

Procjena kvalitete usluga također pomaže sveučilištima da održe visoku razinu odgovornosti i transparentnosti (Magasi i sur., 2022; Yousapronpaiboon, 2014), omogućujući im da pokažu da pružaju kvalitetno obrazovanje svojim studentima i potiču stvaranje poticajnoga radnog okružja za osoblje (Fuchs i sur., 2022). Drugim riječima, procjena kvalitete usluga pomaže visokim učilištima da identificiraju područja za poboljšanje, razviju strategije za poboljšanje obrazovnoga procesa i procijene učinkovitost usluga u zadovoljavanju potreba dionika.

## Uloga digitalnih tehnologija u poboljšanju kvalitete usluga na visokim učilištima

Na temelju analizirane literature, autori su zaključili da je digitalna tehnologija postala sastavni dio aktivnosti visokoškolskih ustanova te da je dokazano da značajno poboljšava kvalitetu usluga koje pružaju (Rahman i sur., 2016). Digitalna tehnologija poboljšala je komunikaciju između potencijalnih studenata, postojećih studenata, profesora i osoblja, omogućujući im brz i praktičan pristup informacijama s bilo kojeg mjesta na svijetu (Saadon i Liong, 2012). Digitalna tehnologija koristi se za poboljšanje kvalitete nastave i učenja. Alati za digitalno ocjenjivanje, sustavi za upravljanje učenjem (LMS) i internetski tečajevi dio su toga. Primjerice, sveučilišne aplikacije i virtualno učenje koriste se za upravljanje studentskom evidencijom i omogućuju studentima da postignu rezultate na svojem fakultetu (Nkomo i sur., 2021).

Iz perspektive upravljanja visokim učilištima, digitalna tehnologija može poboljšati kvalitetu na različite načine. Sveučilišta mogu koristiti analitiku za predviđanje problema s kvalitetom i potreba za održavanjem praćenjem postupaka i prikupljanjem podataka u stvarnom vremenu (Pedro i sur., 2018). To uključuje sve od upisa i registracije do zakazivanja termina i vođenja studentskih podataka. Digitalna plaćanja, digitalna nabava i *online* zapošljavanje samo su neki od primjera ovoga. Kao što su istaknuli Hashim i suradnici (2022), ova praksa digitalne transformacije u visokoškolskim ustanovama definirat će budući putokaz za strategiju održivoga upravljanja obrazovanjem i poboljšanje kvalitete obrazovanja.

Automatizacijom zamornih postupaka digitalna tehnologija također je omogućila visokoškolskim ustanovama da smanje troškove i povećaju učinkovitost (Štefko i sur., 2015). Štoviše, s pandemijom i „novom normalom”, kvaliteta digitalnih usluga postaje sve važnija, što „prisiljava” institucije da pruže interaktivnije i zanimljivije iskustvo učenja. (Bao, 2020; Jadrić i sur., 2022). Cilj je iskoristiti tehnologiju na način koji ne samo da digitalno reproducira postojeću uslugu, već i značajno poboljšava tu uslugu. Drugim riječima, integracija digitalnih tehnologija u sva područja visokoškolske ustanove iz temelja mijenja način na koji ona djeluje i koristi dionicima.

Stoga su analizirane studije pokazale da digitalna tehnologija omogućuje institucijama da poboljšaju korisničku uslugu pružajući dionicima brz i siguran pristup informacijama. Ove prednosti digitalne tehnologije omogućile su visokoškolskim ustanovama da učinkovitije zadovolje potrebe svojih dionika. Uzevši u obzir obrazovne okolnosti koje se brzo mijenjaju, digitalna transformacija postala je ključni strateški pristup koji pomaže visokim učilištima da ostanu konkurentna i tražena.

### Zadržavanje dionika

Još jedna važna točka iz pregledane literature jest važnost zadržavanja dionika kao jednoga od glavnih ciljeva osiguranja kvalitete usluga. U tom kontekstu, termin „dionici” odnosi se na korisnike usluga koje pružaju visokoškolske ustanove, uključujući studente, predavače, osoblje i potencijalne studente. Ovaj skup dodaje još jedan aspekt procjeni

kvalitete usluga na visokim učilištima. U prethodnom skupu procjene kvalitete usluge, procjena koja se usredotočila na pet aspekata nije uzela u obzir zadržavanje dionika. Stoga su autori iz tog razloga dodali mogućnost izdvajanja dionika u zaseban skup.

Zadržavanje dionika služi kao ključni pokazatelj koji odražava učinkovitost kvalitete usluge. Zadržavanje je usko povezano s kvalitetom usluge jer odražava holističko iskustvo studenata i osoblja u instituciji, uključujući zadovoljstvo studijem, ukupni angažman, mreže podrške i osjećaj pripadnosti (Addison i Williams, 2023). Ovo je uključivanje u skladu sa širim shvaćanjem da je zadržavanje osoblja posljedični ishod na koji u velikoj mjeri utječe ukupna kvaliteta pruženih usluga (Abbas, 2020; Khan i sur., 2021). Stoga, iako ovdje nije izričito uključeno u skup ocjenjivanja kvalitete usluge, zadržavanje dionika izdvojilo se u zaseban skup koji služi kao važna metrika usko povezana s procjenom kvalitete usluge u kontekstu visokoga obrazovanja.

Prema analiziranim istraživanjima, zadržavanje dionika povezano je sa sposobnošću visokoškolske ustanove da osigura da studenti ostanu upisani i zadovoljni te da steknu svoje diplome, kao i sposobnošću ustanove da osigura lojalnost svojega osoblja (Magasi i sur., 2022; Mattah i sur., 2018). Rezultati su pokazali da postoje dvije glavne strategije koje visokoškolske ustanove mogu koristiti za održavanje i povećanje broja dionika. Prvo, visokoškolske ustanove trebaju stvoriti poticajno i inkluzivno okruženje koje, pružanjem odgovarajućih resursa i usluga podrške, poput usluga brige o mentalnom zdravlju i savjetovanja o karijeri, potiče studente i osoblje da ostanu u njoj (Kogovsek i Kogovsek, 2013; Yousapronpaiboon, 2014).

Nadalje, sveučilišta bi se trebala usredotočiti na stvaranje smislenih iskustava učenja i rada. To uključuje unaprjeđenje nastavnoga osoblja i infrastrukture koja osigurava digitalnu opremu i fleksibilno okruženje za učenje (Chi, 2022). Uz to, visokoškolske bi ustanove trebale tražiti načine za učinkovitiju integraciju tehnologije u svoje nastavne planove i programe i administrativni proces jer to može poboljšati iskustvo studenata i poboljšati učinkovitost osoblja (Štefko i sur., 2015; Yanova, 2015).

Na današnjem visoko konkurentnom tržištu visokoga obrazovanja od vitalne je važnosti razviti pristupe koji bi osigurali da usluga ispunjava očekivanja dionika. Ovo očekivanje izvor je konkurentne prednosti koja može dovesti do zadržavanja studenata i osoblja.

### ***Glavne karakteristike kvalitete usluga visokih učilišta***

Na temelju rezultata pregledanih studija, autori su zaključili da se karakteristike kvalitete usluga u visokoškolskim ustanovama mogu podijeliti na one koje se odnose na zaposlenike i one koje se na njih ne odnose. Karakteristike koje se odnose na zaposlenike uključuju kvalitetu obrazovanja i upravljanja, dok su infrastruktura i kvaliteta brendiranja čimbenici nevezani za zaposlenike. Detaljne karakteristike identificirane ovom studijom sustavnoga pregleda literature prikazane su u tablicama 4 i 5. Treba napomenuti da se slični atributi mogu pojaviti u literaturi pod nešto drugačijim imenima.

Tablica 4

Čimbenici vezani za zaposlenike u kvaliteti usluga na visokim učilištima

Čimbenici vezani za zaposlenike	varijable	Istraživanja
Kvaliteta obrazovanja	Kvaliteta pedagoške nastave	[P6], [P7], [P8], [P9], [P11], [P13], [P16], [P17], [P25]
	Međuljudske vještine i kompetencije predavača	[P3], [P7], [P19], [P24], [P27], [P28], [P21]
Kvaliteta administracije	Stav i integritet osoblja	[P2], [P3], [P4], [P5], [P12], [P14], [P15], [P18], [P20], [P23], [P24], [P25]
	Administrativna transparentnost i učinkovitost	[P2], [P5], [P9], [P10], [P12], [P22], [P23], [P24], [P26],[P27]

Gornja tablica ilustrira čimbenike vezane za zaposlenike povezane s odgovarajućom kvalitetom usluge. Sve u svemu, rezultati sustavnoga pregleda literature ukazuju na to da postoje dvije glavne karakteristike povezane s „ljudskim” čimbenicima u pružanju kvalitetnih usluga. Prvo, kvaliteta obrazovanja definirana je kao neminovan atribut koji oblikuje kvalitetu usluga. Više od polovice svih studija pokazalo je da kvaliteta pedagoške prakse igra vitalnu ulogu u obrazovanju.

Nekoliko je studija pokazalo da je zadovoljstvo studenata svojim iskustvom u visokom obrazovanju bilo znatno veće kada su bili izloženi visokokvalitetnoj pedagoškoj praksi (Chi, 2022; Magasi i sur., 2022). Drugo istraživanje pokazuje da su studenti bili zadovoljniji svojim predavačima kada su predavači dobro vladali međuljudskim vještinama i interaktivnim metodama poučavanja te pružali smislene povratne informacije kao pedagošku podršku (Borishade i sur., 2021). Ovi rezultati pokazuju da zadovoljstvo korisnika izravno ovisi o kvaliteti pruženih usluga i da važnost pedagoških mehanizama i kompetencija može povećati razinu kvalitete.

Kao druga kvaliteta koja se odnosi na ljude, kvaliteta administrativnoga i pomoćnoga osoblja od izuzetne je važnosti jer su i oni odgovorni za pružanje usluga. Kao što pregledane studije sugeriraju, besprijekorna savjesnost i stavovi administrativnoga i pomoćnoga osoblja pozitivno su povezani s višim razinama zadovoljstva korisnika i interakcije s institucijom (Jovičić i sur., 2020; Yanova, 2015; Yılmaz i Temizkan, 2022). Druge su studije također pokazale da studenti visoko cijene transparentnost i učinkovitost upravljanja i povećavaju njihovu razinu povjerenja u sveučilište (Dursun i sur., 2013; Jiewanto i sur., 2012; Rozak i sur., 2022). Administrativna transparentnost ključna je za osiguranje kvalitete usluge jer omogućuje korisnicima ili klijentima da razumiju kako se usluge pružaju i što se čini kako bi se osigurala kvaliteta i odgovornost usluga (Koudiki i Janardhanam, 2017). Takva administrativna učinkovitost i transparentnost postali su važni standardi za pružanje pravovremene i pouzdane usluge korisnicima ili studentima.

Na temelju tih podataka može se razumno zaključiti da su vrhunska obrazovna i administrativna praksa važni aspekti pružanja kvalitetnih usluga. Ova kvalitetna razina usluge povećat će zadovoljstvo i povjerenje u visokoškolske ustanove.

Tablica 5

Čimbenici (nevezani za zaposlenike) koji utječu na kvalitetu skrbi na sveučilištima

Čimbenici nevezani za zaposlenike	varijable	Izvori
Kvaliteta infrastrukture za učenje	Kurikul	[P5], [P9], [P10], [P11], [P12], [P15]
	Materijalna infrastruktura	[P7], [P15], [P16], [P17]
	Digitalna infrastruktura	[P10], [P19] [P16] [P2]
Kvaliteta brendiranja	Mrežna stranica i digitalni marketing	[P23], [P26], [P28], [P13], [P15], [P25]
	Internacionalizacija	[P20], [P26], [P27],[P28]

Osim utjecaja ljudskih čimbenika na kvalitetu usluge, pregledane studije također su ukazale na neizbježnu ulogu čimbenika nevezanih za zaposlenike. Kao što se može vidjeti u Tablici 5, dobiveni rezultati sugeriraju da ti čimbenici imaju jednako važnu ulogu kao i pedagoška i administrativna praksa. Manea i Iatagan (2015) i Chi (2022) sugeriraju da infrastruktura učenja, poput sveobuhvatnoga kurikula i prostora za učenje, nadopunjuje obrazovni proces i postaje glavni čimbenik zadovoljstva studenata. To se pripisuje činjenici da poboljšana infrastruktura može dovesti do poboljšanih okružja za učenje i rad u kojima se studenti, nastavnici i ostalo osoblje osjećaju sigurno i podržano (Cardona i Bravo, 2012; Wilson, 2021).

Govoreći o modernom dobu, Yanova (2014) i Chui i sur. (2016) opisali su da će digitalna infrastruktura i visokokvalitetni IT sustavi omogućiti administratorima visokih učilišta da učinkovitije unose, pohranjuju i dohvaćaju podatke, što je ključno za praktičnu korisničku podršku i zadovoljavajuću kvalitetu usluge. Što se tiče poučavanja i procesa učenja, posjedujući ove digitalne resurse, studenti i predavači mogu pristupiti visokokvalitetnim materijalima za učenje, sudjelovati u suradničkim aktivnostima učenja i razviti svoje sposobnosti kritičkoga mišljenja (Danjuma i Rasli, 2012). Shodno tome, poboljšana nastavna infrastruktura može pomoći u poboljšanju kvalitete visokoga obrazovanja pružanjem resursa potrebnih za inovativniji proces učenja i učinkovite administrativne usluge.

Rezultati prikazani u Tablici 5 sugeriraju da brendiranje obrazovne ustanove doprinosi razvitku kvalitete usluge. U trenutnom konkurentnom okruženju sektora visokog obrazovanja, brendiranje se sve više koristi kao strategija za razlikovanje visokoškolskih ustanova od konkurenata (Clark i sur., 2020). Kao što je prikazano u Tablici 5, mrežne stranice, digitalni marketing i internacionalizacija smatraju se ključnim varijablama koje odražavaju razinu kvalitete usluge u ustanovi. Korisnici očekuju posebnu razinu usluge od institucija s dobro uspostavljenom reputacijom. Stoga su visokoškolske ustanove snažnije marke obično povezane s višom kvalitetom usluge (Kogovsek i Kogovsek, 2013).

Slično tome, Štefko i sur. (2015) sugeriraju značajnu korelaciju između cjelokupnoga imidža visokoškolske ustanove i upotrebe modernih alata za digitalni marketing, uključujući

i mrežnu stranicu. Ova je tvrdnja u skladu s mišljenjem Makrydakisa (2021), koji je izjavio da, putem svojih mrežnih stranica i platformi društvenih mreža, visoka učilišta mogu podijeliti svoja postignuća, razviti odnose s potencijalnim i bivšim studentima i studenticama te poboljšati imidž svoje marke.

Ove vrste marketinških inicijativa mogu pomoći u povećanju vidljivosti visokoga učilišta i privući pozornost međunarodne publike na njegove snage i postignuća (Chui i sur., 2016; Jiewanto i sur., 2012). Ovi rezultati stoga upućuju na to da dobro osmišljena strategija brendiranja koja maksimalno koristi digitalnu tehnologiju može povećati ugled i ocjenu institucije i dovesti do širenja međunarodnoga tržišta.

## **Zaključak**

Rezultati prvog zadatka istraživanja omogućili su autorima da identificiraju četiri glavne skupine tema, od kojih svaka uključuje pregledane studije o srodnim temama. Identificirani skupovi označeni su na sljedeći način: 1) važnost i primjena kvalitetnih usluga, 2) procjena kvalitete usluga, 3) uloga digitalne tehnologije u poboljšanju kvalitete usluga na sveučilištima i 4) zadržavanje dionika. Ovi skupovi pokazuju trendove u istraživanju kvalitete usluge i njezinih budućih smjerova. Općenito, na temelju grupiranih tema, buduća istraživanja mogu uključivati ispitivanje načina na koji visoka učilišta mjere i kontroliraju kvalitetu svojih usluga, ispitivanje uloge tehnologije u poboljšanju kvalitete usluga i čimbenika koji utječu na lojalnost dionika visokim učilištima.

Što se tiče drugog cilja studije, identificirani su čimbenici vezani za zaposlenike i čimbenici nevezani za zaposlenike kao glavni aspekti provedbe odgovarajuće kvalitetne usluge na visokim učilištima. Autori su uspjeli izolirati niz varijabli povezanih s tim čimbenicima. Prema proučavanoj literaturi, čimbenike vezane za zaposlenike formira kvaliteta predavačke nastave i rada administrativnoga osoblja. Te su varijable važne za kvalitetu usluge na visokom učilištu jer doprinose cjelokupnoj percepciji studenata kao primarnih dionika. Visokokvalitetna nastavna i pedagoška praksa omogućit će studentima da uče i razvijaju se u kontekstu visokoga obrazovanja. Kao pomoćni element, osoblje će osigurati infrastrukturu i usluge potrebne za funkcioniranje ustanove. Oboje je potrebno za vrhunsko sveučilišno iskustvo.

Što se tiče čimbenika nevezanih za zaposlenike, obrazovna infrastruktura i brendiranje nezaobilazni su elementi poboljšanja kvalitete usluga u obrazovnim ustanovama. Obrazovna infrastruktura u visokoškolskim ustanovama uključuje učionice, knjižnice, laboratorije i druge prostorije za učenje. Također uključuje i dostupnu digitalnu tehnologiju i alate za studente i nastavno osoblje. Brendiranje pomaže u stvaranju identiteta institucija i postizanju javnoga prepoznavanja. Ono odražava načela i misiju sveučilišta i privlači buduće studente, nastavnike i osoblje. Uz ova dva elementa, institucija može poboljšati kvalitetu svojih usluga i obrazovnu okolinu za svoje dionike.

Ovaj članak ima određena ograničenja. Primarno ograničenje odnosi se na uporabu dviju baza podataka i uklanjanje publikacija iz zbornika konferencija i vladinih ili nevladinih organizacija, što uvelike smanjuje veličinu uzorka. Pregled je ograničen na



korištene baze podataka i korištenih pojmova za pretraživanje. Druge baze podataka mogle bi imati relevantne dokumente koji nisu odgovarali pojmovima za pretraživanje. Stoga bi buduće studije trebale razmotriti proširenje doseg a izvan dviju baza podataka i uključivanje publikacija iz različitih izvora, poput zbornika konferencija i tekstova vladinih ili nevladinih organizacija. Takvo povećanje veličine uzorka omogućit će potpuniju sliku istraživanja, obogatiti informacije i dati preporuke za poboljšanje kvalitete usluga na visokim učilištima.

Nadalje, naš deduktivni i induktivni pristup dizajniranju strukturnih dimenzija i srodnih kategorija ima određena ograničenja jer uključuje prosudbu istraživača. Ponavljanje pomoću induktivne metode ili nešto abduktivnije metode može pomoći u otkrivanju novih kategorija i potvrđivanju onih korištenih u ovoj studiji.

Osim toga, ovaj rad pruža obilježja kvalitete usluge razvijene iz književnih izvora koji mogu pružiti nekoliko preporuka. Prvo, generirani čimbenici mogu pomoći visokoškolskim ustanovama (sveučilištima) da identificiraju područja poboljšanja kvalitete usluga koje pružaju i da naprave ciljane promjene kako bi poboljšale cjelokupno iskustvo dionika. To se može postići provođenjem čestih procjena i anketa na temelju razvijenih čimbenika. Drugo, visoka se učilišta potiču da koriste podatke dane u ovom dokumentu kako bi usporedila kvalitetu svojih usluga s konkurentima i razvila strategije za održavanje konkurentnosti na svojim tržištima. Primjerice, identificiranjem specifičnih nedostataka i snaga u usporedbi s izravnim konkurentima, visoka učilišta mogu razviti ciljane strategije poboljšanja, poput provedbe programa osposobljavanja za usavršavanje nastavnih metoda ili ulaganja u modernu nastavnu opremu. Ovaj pristup omogućit će institucijama da aktivno otklone nedostatke i strateški ojačaju svoje konkurentne prednosti na tržištu visokoga obrazovanja.

Nadalje, istraživanje ukazuje na potrebu pažljivijega proučavanja točne uloge tehnologije u poboljšanju kvalitete usluga na visokim učilištima. Istraživanja bi mogla procijeniti učinkovitost specifičnih tehnoloških intervencija, uključujući virtualne učionice, platforme za učenje temeljene na umjetnoj inteligenciji i personalizirane digitalne sustave podrške, u smislu njihovoga utjecaja na poboljšanje cjelokupnoga iskustva studenata i na učinkovitost pružanja usluga. Naposljetku, razvijeni atributi s povezanim varijablama mogu poslužiti kao vodič znanstvenicima koji proučavaju kvalitetu usluge kao ključnu komponentu konkurentne strategije određene institucije.