

Customer, Product, or Both? A Systematic Review of SERVQUAL-Based Educational Quality Assessment

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How to cite this paper: Mandili, A. M. J., & Mirahan-Zedan, M. (2026). Customer, Product, or Both? A Systematic Review of SERVQUAL-Based Educational Quality Assessment. *Open Journal of Social Sciences*, 14, 65-84.

<https://doi.org/10.4236/jss.2026.148005>

Received: February 12, 2026

Accepted: August 7, 2026

Published: August 10, 2026

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Abstract

The SERVQUAL model has been widely adopted in higher education research as a framework for measuring educational service quality through the gap between users' expectations and perceptions. Despite its extensive application across diverse educational contexts, limited attention has been paid to how SERVQUAL is conceptually framed with respect to stakeholders and educational outcomes. This study presents a PRISMA-based systematic review of 30 empirical studies published between 2004 and 2024 to examine how the SERVQUAL model has been applied in measuring educational quality and which stakeholder perspectives have guided these applications. The review synthesizes evidence from studies conducted across multiple regions, including the Middle East, North Africa, Asia, and Europe, and across various educational settings such as public and private universities, postgraduate programs, and distance education. The findings indicate that SERVQUAL has been applied predominantly as a student-centered service evaluation tool, focusing on operational and administrative dimensions such as facilities, reliability, responsiveness, assurance, and empathy. Across contexts, studies consistently report negative gaps between students' expectations and perceptions, highlighting areas for internal service improvement. Critically, none of the reviewed studies conceptualized the labor market as the ultimate customer of higher education or treated graduates as the primary service output of educational institutions. Although employability and labor market alignment were occasionally acknowledged, they were not operationalized within the SERVQUAL framework. The study calls for labor-market-oriented and multi-stakeholder adaptations of SERVQUAL to support outcome-based educational quality assessment.

Keywords

SERVQUAL, Educational Service Quality, Higher Education, Student Satisfaction, Labor Market Alignment, Graduate Employability, Systematic Review, PRISMA

1. Introduction

Higher education institutions are increasingly expected to deliver high-quality educational services that respond to the evolving expectations of students, society, and the labor market. As universities expand in scale, diversify their academic offerings, and operate within more competitive and resource-constrained environments, the quality of educational services has become a central concern for policymakers, institutional leaders, and researchers alike. Ensuring service quality is no longer limited to academic content; it also encompasses facilities, administrative support, responsiveness, reliability, and the overall educational experience provided to learners (Tan & Kek, 2004; Abdullah, 2006).

In many regions, including the Arab world and other developing and emerging economies, the rapid expansion of higher education has been accompanied by significant structural challenges. Increased enrollment, particularly among female students, diversification of programs, and the growth of public and private institutions have intensified concerns regarding graduate employability and the alignment between educational outcomes and labor market requirements (Hajdari, 2019; Goumairi et al., 2020). Although higher education systems have contributed substantially to human capital development, mismatches between graduates' competencies and labor market needs continue to persist, raising questions about the effectiveness and quality of educational services.

Within this context, evaluating educational service quality has become an essential mechanism for diagnosing performance gaps and guiding institutional improvement. Various approaches have been employed to assess service quality in higher education, including satisfaction surveys, performance indicators, and structured measurement models. Among these, the SERVQUAL model has emerged as one of the most widely used frameworks for measuring service quality by examining the gap between users' expectations and their perceptions of actual service delivery across five dimensions: Tangibles, reliability, responsiveness, assurance, and empathy (Parasuraman et al., 1988).

Due to its diagnostic clarity and adaptability, the SERVQUAL model has been extensively applied in higher education research across diverse geographical and institutional contexts. Empirical studies have used SERVQUAL to assess service quality in public and private universities, engineering schools, postgraduate programs, distance education, and during crisis situations such as the COVID-19 pandemic (Gregory, 2019; Yousapronpaiboon, 2014; Li & Teh, 2021; Safar, 2021).

These studies consistently highlight gaps between expected and perceived service quality, indicating areas for improvement in infrastructure, administrative efficiency, academic support, and responsiveness.

However, a critical examination of the existing literature reveals a dominant conceptual orientation in SERVQUAL-based educational studies: the overwhelming majority conceptualize students as the primary—and often sole—customers of educational services. Consequently, service quality assessment has largely focused on students' satisfaction with teaching, facilities, and institutional support during their studies (Shekarchizadeh et al., 2011; Leonnard, 2018; Saliba & Gorenc Zoran, 2018). While this perspective provides valuable insights into the student experience, it offers a partial view of educational quality by prioritizing short-term satisfaction over longer-term outcomes.

Notably, far less attention has been paid to alternative stakeholder perspectives, particularly those that view the labor market as the ultimate customer of higher education and graduates as the primary service output of educational institutions. From this perspective, educational quality should be evaluated not only by students' perceptions but also by the extent to which graduates' skills, competencies, and attributes align with labor market needs. Despite its relevance, this outcome-oriented approach remains underrepresented in SERVQUAL-based educational research.

Given the increasing emphasis on employability, skills relevance, and outcome-based education, there is a clear need for a systematic synthesis of how the SERVQUAL model has been applied in educational contexts and which stakeholder perspectives have guided these applications. A systematic review is particularly valuable for identifying dominant trends, methodological patterns, and conceptual gaps in the literature, and for clarifying whether and how labor-market-oriented perspectives have been incorporated into educational quality assessment. Accordingly, this systematic review seeks to address the following central research question:

How has the SERVQUAL model been applied in measuring the quality of educational services, and which stakeholder perspectives have been adopted in evaluating educational quality?

In addition, the review is guided by the following sub-question:

Have SERVQUAL-based educational studies conceptualized the labor market as the ultimate customer and graduates as the service output of educational institutions?

By synthesizing evidence from existing studies, this review aims to provide a comprehensive overview of SERVQUAL applications in education, identify prevailing evaluation perspectives, and highlight critical gaps that can inform future research and policy development in educational quality assessment.

2. Problem Statement

Despite the growing importance of educational service quality in higher educa-

tion, there remains a lack of conceptual clarity regarding how quality should be evaluated and whose perspectives should be prioritized in this evaluation. Many higher education institutions have adopted service quality frameworks, particularly the SERVQUAL model, to assess the effectiveness of their educational services. These assessments commonly focus on the gap between students' expectations and their perceptions of the services provided, emphasizing dimensions such as facilities, responsiveness, reliability, assurance, and empathy. While this approach has contributed significantly to understanding the student experience within universities, it tends to emphasize short-term satisfaction indicators rather than broader educational outcomes.

A major limitation within the existing literature is the predominant treatment of students as the primary—or sometimes the sole—customers of higher education services. As a result, most SERVQUAL-based studies measure service quality primarily through students' perceptions during their academic experience. Although this perspective provides valuable insights into institutional performance from the learner's viewpoint, it overlooks other critical stakeholders who are directly affected by the outputs of higher education, particularly employers and the labor market.

In contemporary knowledge economies, higher education institutions are increasingly expected to produce graduates who possess relevant competencies, practical skills, and professional readiness that align with labor market demands. However, persistent concerns about graduate employability and skills mismatches suggest that current approaches to evaluating educational service quality may not adequately capture the effectiveness of universities in fulfilling this broader societal role. The limited integration of labor-market-oriented perspectives in SERVQUAL-based educational research raises important questions about whether existing assessment models fully reflect the ultimate outcomes of higher education systems.

Furthermore, the literature lacks a comprehensive synthesis that critically examines how SERVQUAL has been applied in educational contexts and whether alternative stakeholder perspectives—particularly those that view the labor market as the ultimate customer and graduates as the service output—have been incorporated into quality assessment frameworks. Without such synthesis, it remains difficult to identify prevailing research trends, methodological approaches, and conceptual gaps that may limit the effectiveness of educational quality evaluation.

Accordingly, the central problem addressed by this study is the absence of a systematic understanding of how the SERVQUAL model has been applied in higher education research and the extent to which different stakeholder perspectives have shaped these applications. Addressing this gap is essential for developing a more comprehensive and outcome-oriented understanding of educational service quality that reflects both students' experiences and the broader expectations of the labor market.

3. Methodology

Systematic reviews are methodological studies that use structured, transparent database searches to identify, evaluate, and synthesize existing research, thereby providing objective, theoretically grounded insights into a specific research area. Unlike narrative reviews, which often summarize prior knowledge without applying standardized and reproducible procedures or addressing clearly defined research questions (Harrison et al., 2020), systematic reviews follow a rigorous methodological process that enhances the validity and reliability of their findings. Such an approach is particularly effective in minimizing reviewer bias and strengthening the credibility of research outcomes (Robinson & Lowe, 2018). High-quality systematic reviews typically involve three interrelated stages—planning, conducting, and reporting—carried out through comprehensive, replicable search strategies across multiple academic databases (Bramer et al., 2018). Despite the extensive application of the SERVQUAL model in educational research, existing studies remain dispersed across different contexts, educational levels, and stakeholder perspectives, resulting in fragmented knowledge and limited cumulative understanding. This fragmentation highlights the need for a systematic synthesis to consolidate existing evidence and identify conceptual and methodological gaps in the literature.

3.1. PRISMA

This systematic review was conducted in accordance with the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework, which aims to enhance transparency, comprehensiveness, and methodological rigor in systematic reviews and meta-analyses (Moher et al., 2009). PRISMA provides a structured reporting approach that reduces the risk of bias and misinterpretation throughout the review process. Although originally developed for health research, the PRISMA methodology has been increasingly adopted in education, management, and social science research due to its robustness and adaptability.

3.1.1. Resources

A comprehensive electronic literature search was conducted across multiple academic databases to ensure broad coverage of international and Arabic-language studies on the application of the SERVQUAL model in educational contexts. The databases included Dar Almandumah, Scopus, Web of Science (WoS), and Google Scholar. Dar Almandumah is a major Arabic academic database that includes peer-reviewed journals, theses, conference proceedings, and scholarly publications across the fields of education, the social sciences, management, and the humanities. Scopus provides access to a large collection of peer-reviewed journals across the education, social sciences, and interdisciplinary fields, as well as advanced citation analysis tools. Web of Science (WoS) offers extensive multidisciplinary coverage and includes high-impact journals relevant to educational quality and service evaluation. Google Scholar was used as a supplementary source to

identify additional relevant studies not indexed in the primary databases. These databases were selected to ensure comprehensive inclusion of both global and regional research, reflecting the dual focus of this review on international SERVQUAL applications and studies conducted within Arab and developing-country educational contexts.

3.1.2. Systematic Review Process

The systematic review followed three key stages: identification, screening, and eligibility assessment, in accordance with PRISMA guidelines (see **Figure 1**).

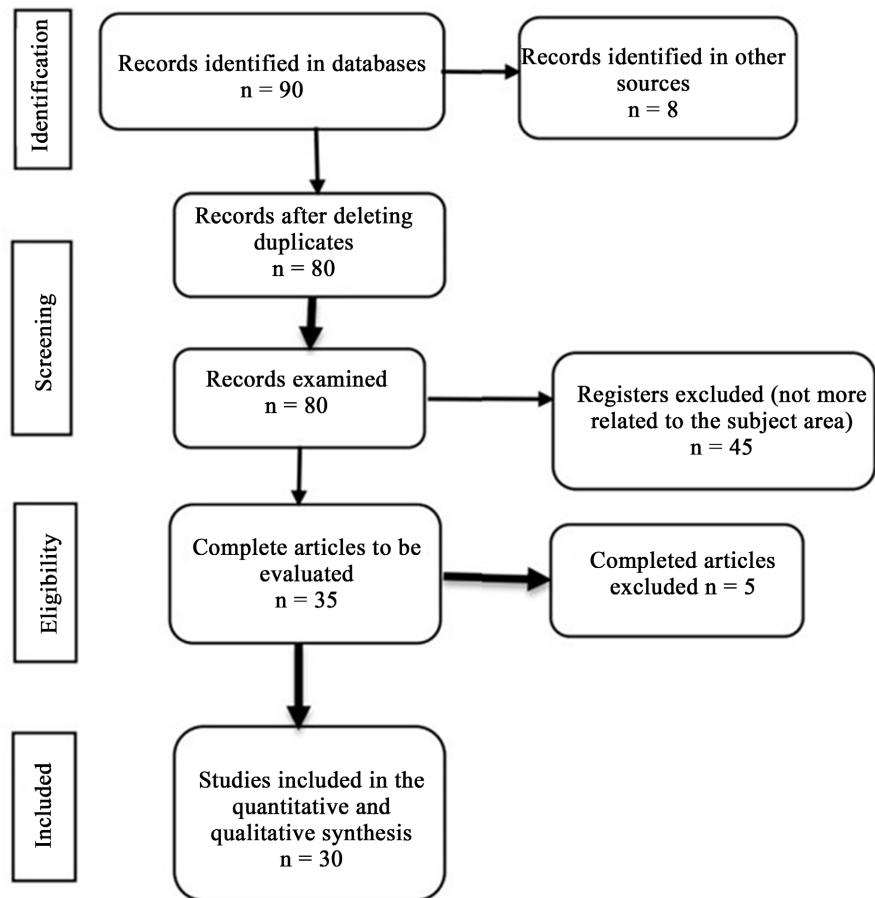


Figure 1. PRISMA systematic review process.

3.1.3. Identification

During the identification stage, a systematic process was used to develop relevant keywords and search terms aligned with this review's research questions. The objective was to ensure comprehensive retrieval of studies that apply the SERVQUAL model to measure educational service quality across different educational settings. This process involved identifying synonyms, related concepts, and alternative expressions for key constructs such as SERVQUAL, service quality, educational quality, higher education, technical and vocational education, students, graduates, employers, and labor market. Following the framework proposed by Okoli (2015), the initial list of keywords was refined using established terminology

from prior literature, online thesauri, and expert judgment. To maximize search precision and retrieval breadth, Boolean operators (OR/AND), phrase searching, truncation, and wildcard symbols were incorporated into the final search strings. These search strategies were systematically applied across all selected databases, and the final search strings and database-specific keyword combinations are presented in **Table 1**. As a result of the identification process, 98 records were retrieved during the initial search phase, forming the preliminary dataset for subsequent screening and eligibility assessment.

Table 1. Search strings used in the systematic review.

Database	Keywords Used
Dar Alman-dumah	“SERVQUAL” OR “Service Quality” OR “Educational Service Quality” OR “Higher Education Quality” OR “University Services” OR “Quality of Educational Services” OR “Student Satisfaction” OR “Graduate Outcomes” OR “Labor Market Needs” OR “Educational Quality Measurement”
Scopus	“SERVQUAL” OR “Service Quality in Education” OR “Higher Education Service Quality” OR “Educational Quality Assessment” OR “Student Satisfaction” OR “Graduate Employability” OR “Labor Market Alignment” OR “Quality of Higher Education”
Web of Science	“SERVQUAL” OR “Educational Service Quality” OR “Higher Education Quality” OR “University Service Quality” OR “Student Perceptions” OR “Graduate Skills” OR “Employability” OR “Education and Labor Market”
Google Scholar	“SERVQUAL” OR “Service Quality in Higher Education” OR “Educational Service Quality” OR “Student Satisfaction” OR “Graduate Employability” OR “Labor Market Requirements” OR “Quality of Education”

3.1.4. Screening

The second stage involved a systematic screening process designed to refine the preliminary dataset and ensure the methodological rigor and relevance of the included studies. Initially, duplicate records identified across the selected databases were removed, resulting in the exclusion of 18 overlapping records and leaving 80 unique studies for further assessment. The remaining records were subsequently screened using predefined inclusion and exclusion criteria, summarized in **Table 2**.

Table 2. Inclusion and exclusion criteria.

Criteria	Included Studies	Excluded Studies
Document Type	Empirical, peer-reviewed journal articles	Conference papers, book chapters, books, dissertations, systematic reviews, and other non-empirical sources
Language	English and Arabic publications	Publications in other languages
Study Focus	Application of the SERVQUAL model or SERVQUAL-based gap analysis in educational service quality assessment	Studies not applying SERVQUAL, focusing on non-educational sectors, or lacking methodological clarity

Only peer-reviewed journal articles presenting empirical research were considered, as these provide robust methodological foundations and original findings relevant to the objectives of this review. Review articles, book chapters, conference proceedings, dissertations, systematic reviews, and other non-empirical sources were excluded. To ensure linguistic accessibility and contextual relevance, only studies published in English or Arabic were included. The screening also focused on the thematic scope of the articles. Studies were required to explicitly apply the SERVQUAL model or a SERVQUAL-based perceptions–expectations framework in educational contexts, including higher education, technical and vocational education, postgraduate education, or distance learning environments. Articles that did not employ SERVQUAL, focused on non-educational sectors, or lacked sufficient methodological clarity were excluded at this stage, as detailed in [Table 2](#). Applying these screening criteria excluded 45 studies, leaving 35 articles eligible for full-text assessment in the subsequent eligibility stage.

3.1.5. Eligibility

The eligibility stage involved a detailed full-text review of the 35 remaining studies to verify their alignment with the research objectives. Each article was manually examined to assess its theoretical focus, methodological transparency, and empirical contribution to understanding educational service quality through the SERVQUAL model. Particular attention was given to identifying the stakeholder perspective adopted in each study, including whether students, graduates, employers, or the labor market were conceptualized as customers. Studies that failed to meet the inclusion criteria, demonstrated significant methodological limitations, or were identified as retracted publications, were excluded at this stage. As a result of the eligibility assessment, 5 studies were excluded, leaving a final sample of 30 that met all inclusion criteria and were included in the qualitative synthesis.

3.1.6. Quality Assessment

To ensure the reliability and validity of the review findings, a quality appraisal was conducted for the included studies. Each study was assessed for research design clarity, appropriateness of data collection and analysis methods, and relevance to the research questions. Studies that met acceptable quality standards were retained for synthesis, ensuring that the review's conclusions were based on methodologically sound evidence.

3.1.7. Data Extraction and Analysis

Following the eligibility and quality assessment stages, a structured data extraction and analysis process was undertaken. Key information extracted from each study included the publication year, country, and educational context; the SERVQUAL dimensions used; measurement objectives; the stakeholder perspective; and the main findings. The extracted data were organized into structured matrices to facilitate cross-study comparison. A thematic analysis approach was then applied, following the procedures outlined by [Braun and Clarke \(2006\)](#). This process

enabled the identification of recurring patterns and the classification of SERVQUAL applications according to measurement focus and stakeholder perspective. Thematic synthesis provided the basis for identifying dominant trends, methodological patterns, and gaps in SERVQUAL-based research on educational quality.

4. Results

This section presents the findings of the systematic review based on the 30 studies that met the inclusion criteria following the PRISMA screening and eligibility process. The results are organized to reflect:

- 1) general characteristics of the included studies;
- 2) patterns in SERVQUAL applications in educational contexts;
- 3) stakeholder perspectives adopted in evaluating educational quality.

4.1. Study Selection Results

The systematic search across selected databases yielded 98 records during the identification stage. After removing 18 duplicate records, 80 unique studies were screened based on titles and abstracts. After applying predefined inclusion and exclusion criteria, 45 studies were excluded as irrelevant, lacking empirical evidence, using non-SERVQUAL instruments, or focusing on non-educational sectors. A total of 35 full-text articles were assessed for eligibility. Of these, 5 studies were excluded due to methodological limitations, insufficient alignment with the review objectives, or retraction status. Consequently, 30 studies were retained for qualitative synthesis.

4.2. General Characteristics of the Included Studies

The studies included in this review were published between 2004 and 2024, indicating sustained academic interest in applying the SERVQUAL model within educational contexts over the past two decades (Tan & Kek, 2004; Abdullah, 2006; Utkirov, 2024). The geographical distribution of the studies reflects a strong representation of developing and emerging economies, including countries in the Middle East, North Africa, Asia, and Eastern Europe. Examples include studies conducted in Saudi Arabia (Al-Zahrani & Mohammed, 2010; Hasnain & Al-Sharbinni, 2017; Safar, 2021), Egypt (Abu Warda, 2007), Morocco (Goumairi et al., 2020), Yemen (Al-Ghaili, 2018), Malaysia (Shekarchizadeh et al., 2011; Ramaiyah et al., 2009), Thailand (Yousapronpaiboon, 2014), Indonesia (Leonnard, 2018), Albania (Hajdari, 2019; Çerri, 2012), and Uzbekistan (Utkirov, 2024).

In the educational context, most studies have focused on higher education institutions, including public and private universities, engineering schools, and postgraduate programs (Gregory, 2019; Goumairi et al., 2020; Saliba & Gorenc Zoran, 2018). A smaller number of studies examined technical and vocational education, community colleges, and distance or online learning environments, particularly during the COVID-19 pandemic (Li & Teh, 2021; Safar, 2021).

Methodologically, most studies adopted a quantitative research design, relying

on questionnaire-based surveys grounded in the SERVQUAL perceptions–expectations gap model originally proposed by Parasuraman et al. (1988). Sample sizes varied considerably, ranging from fewer than 100 respondents in specialized programs (Gregory, 2019) to several hundred students in large public universities (Shekarchizadeh et al., 2011; Yousapronpaiboon, 2014).

4.3. Applications of the SERVQUAL Model in Education

Analysis of the included studies indicates that the SERVQUAL model has been applied in educational research for various measurement purposes. While these applications differ in scope and context, they share a common conceptual foundation rooted in the original expectations–perceptions gap logic, in which educational quality is assessed through the subjective evaluations of service recipients. Across the reviewed literature, three dominant application patterns emerge, reflecting differences in research objectives, institutional focus, and analytical intent. Notably, none of these application patterns conceptualize students as outputs or graduates as products of the educational system.

4.3.1. Assessment of Educational Service Delivery

The most widespread application of SERVQUAL involved assessing the quality of educational service delivery from students’ perspectives. In this dominant stream, SERVQUAL was used primarily to evaluate operational and support dimensions of education, including physical infrastructure, administrative services, teaching facilities, communication processes, and institutional responsiveness. Across diverse geographical and institutional contexts, empirical evidence consistently revealed negative gaps between students’ expectations and perceptions across all five SERVQUAL dimensions, indicating that perceived service quality frequently failed to meet expectations (Abdullah, 2006; Yousapronpaiboon, 2014; Hajdari, 2019; Al-Zahrani & Mohammed, 2010). These gaps were most pronounced in the dimensions of tangibility, reliability, and responsiveness, highlighting persistent deficiencies related to facility adequacy, adherence to academic schedules, availability of learning resources, and timely administrative support (Leonnard, 2018; Al-Ghaili, 2018; Goumairi et al., 2020; Barakat, 2010). Importantly, within this application pattern, students are consistently positioned as end users of educational services rather than as developmental outputs of the system. Even when studies address curriculum relevance or academic quality, these elements are evaluated solely in terms of students’ satisfaction during their studies, not in terms of graduates’ competencies, skills, or employability. As such, SERVQUAL functions as a diagnostic tool for service delivery efficiency, rather than as a mechanism for assessing the effectiveness of education as a production process.

4.3.2. Evaluation of Program Effectiveness and Institutional Performance

A second cluster of studies extended SERVQUAL beyond basic service delivery assessment and employed it as a strategic diagnostic instrument to evaluate pro-

gram effectiveness, institutional performance, and comparative quality across organizational units. In these studies, SERVQUAL findings were interpreted as inputs for quality assurance, benchmarking, and strategic planning, rather than as isolated satisfaction metrics. Comparative analyses frequently examined differences between public and private higher education institutions, revealing systematic variations in perceived service quality. For example, [Saliba and Gorenc Zoran \(2018\)](#) demonstrated that public universities consistently exhibited larger negative gaps in reliability and responsiveness than private institutions, suggesting structural constraints related to governance, funding, and administrative flexibility. Similar comparative approaches were adopted in studies examining differences across faculties, departments, or academic programs within the same institution ([Gregory, 2019](#); [Hajdari, 2019](#)). Despite this broader institutional focus, SERVQUAL applications within this category remain firmly anchored in student perceptions. Program effectiveness is assessed by how well services are delivered to students, rather than by how effectively programs transform students into competent graduates. Consequently, students are still treated as customers rather than as products of the educational process, and institutional performance is evaluated without reference to labor market outcomes, graduate quality, or employer satisfaction.

4.3.3. Context-Specific and Adapted Applications

A smaller yet meaningful subset of studies applied SERVQUAL to context-specific educational settings, demonstrating the model's adaptability while preserving its five-dimensional structure. These contexts included postgraduate education ([Hasnain & Al-Sharbinni, 2017](#); [Al-Rabbah, 2020](#)), international student experiences ([Shekarchizadeh et al., 2011](#)), and distance or emergency remote education during the COVID-19 pandemic ([Li & Teh, 2021](#); [Safar, 2021](#)). In postgraduate-focused studies, SERVQUAL was adapted to capture expectations related to academic supervision, research support, and administrative efficiency. Although these studies reported significant gaps—particularly in responsiveness and empathy—the evaluative focus remained on postgraduate students' service experiences rather than on the quality or market relevance of postgraduate qualifications. Similarly, studies conducted during the COVID-19 pandemic emphasized digital infrastructure and institutional responsiveness, yet assessed success primarily through students' immediate perceptions of online learning environments. Across all adapted applications, SERVQUAL proved effective in identifying context-specific service deficiencies, but its evaluative scope remained limited to short-term service experiences. Even in these specialized contexts, students were never conceptualized as outputs, nor were graduates evaluated as products whose quality could be judged by external stakeholders such as employers.

4.4. Stakeholder Perspectives in SERVQUAL-Based Studies

Analysis of stakeholder perspectives reveals a clear and persistent dominance of the student-centered evaluation paradigm across all reviewed studies. The vast

majority of SERVQUAL-based educational research conceptualizes students as the primary—and often exclusive—customers of educational services, with quality measured solely through their expectations and perceptions (Parasuraman et al., 1988; Abdullah, 2006; Gregory, 2019; Yousapronpaiboon, 2014). Some studies broadened the respondent base to include postgraduate students, international students, or teachers, yet these groups were still treated as direct service recipients rather than as participants within a broader education-to-employment value chain (Shekarchizadeh et al., 2011; Hasnain & Al-Sharbinni, 2017; Al-Badawi & Al-Qahtani, 2019). Even when employability, skills relevance, or labor market challenges were acknowledged in discussion sections, such issues remained conceptual or interpretive, and were not operationalized within the SERVQUAL measurement framework (Goumairi et al., 2020; Utkirov, 2024). Critically, none of the 30 reviewed studies conceptualized students as products or graduates of educational institutions. Likewise, the labor market was never positioned as the ultimate customer whose expectations and perceptions should inform quality assessment. This absence persists across regions, educational levels, and time periods, including contexts where graduate unemployment and skills mismatches are explicitly identified as national policy challenges.

4.5. Summary of Key Findings

The findings of this systematic review demonstrate that the SERVQUAL model has been widely and consistently applied to assess educational service quality across diverse institutional types and geographical settings. The model has proven effective in identifying service delivery gaps, supporting managerial decision-making, and informing continuous improvement initiatives within educational institutions. However, the review also reveals a systematic conceptual limitation in existing SERVQUAL-based educational research. Applications remain overwhelmingly student-satisfaction oriented, focusing on perceived service quality during the study period. While this perspective provides valuable insights into operational and administrative performance, it offers only a partial evaluation of educational quality because it excludes outcome-oriented measures of graduate competence, employability, and labor market alignment. Most importantly, the complete absence of studies that conceptualize students as products and the labor market as the ultimate customer highlights a critical gap in the literature. Addressing this gap presents a significant opportunity for future research to reconceptualize SERVQUAL applications in education, shifting from a service-consumption perspective to a value-creation, outcome-based framework that aligns educational quality assessment with workforce and societal needs.

5. Discussion

This systematic review examined how the SERVQUAL model has been applied in measuring the quality of educational services and which stakeholder perspectives have guided these applications. By synthesizing evidence from 30 empirical stud-

ies published between 2004 and 2024, the review directly addresses the central research question and its gap-driven sub-question. The discussion not only consolidates dominant application patterns of SERVQUAL in educational contexts but also exposes a persistent and theoretically significant limitation in how educational quality has been conceptualized and measured.

5.1. Addressing the Central Research Question

How has the SERVQUAL model been applied in measuring the quality of educational services, and which stakeholder perspectives have been adopted?

The findings of this review demonstrate that SERVQUAL has been applied in education predominantly as a student-centered service quality assessment tool. Across a wide range of geographical regions and institutional types, SERVQUAL has been used to measure gaps between students' expectations and perceptions regarding educational services, with consistent attention to the five core dimensions of tangibility, reliability, responsiveness, assurance, and empathy (Abdullah, 2006; Yousapronpaiboon, 2014; Gregory, 2019).

Most reviewed studies employed SERVQUAL to evaluate educational service delivery, focusing on facilities, administrative efficiency, staff behavior, academic support, and institutional responsiveness (Hajdari, 2019; Al-Ghaili, 2018; Goumairi et al., 2020). A second stream of applications used SERVQUAL more strategically, interpreting gap results as indicators of program effectiveness and institutional performance, often by comparing public and private universities or across faculties and departments (Saliba & Gorenc Zoran, 2018; Gregory, 2019). A third, smaller group of studies adapted SERVQUAL to specific educational contexts, such as postgraduate education, international students, and emergency distance learning during the COVID-19 pandemic (Shekarchizadeh et al., 2011; Li & Teh, 2021; Safar, 2021).

Despite this apparent diversity of applications, the stakeholder perspective adopted across studies is strikingly uniform. Almost all SERVQUAL-based educational studies conceptualize students as the primary customers and define educational quality as students' satisfaction with services received during the study period. This approach mirrors the original SERVQUAL logic developed for commercial service settings (Parasuraman et al., 1988), where service quality is evaluated based on the perceptions of direct service consumers. From a theoretical standpoint, this dominant application positions SERVQUAL in education as a tool for assessing operational service quality, rather than as a framework for evaluating the effectiveness of education as a developmental or productive process. Consequently, educational quality is frequently equated with perceived service satisfaction, rather than with learning outcomes, skill acquisition, or societal and economic impact.

5.2. Addressing the Sub-Question

Have SERVQUAL-based educational studies conceptualized the labor market as

the ultimate customer and graduates as the service output of educational institutions?

One of the most significant contributions of this review lies in its clear and unequivocal answer to the sub-question. The analysis reveals that none of the 30 reviewed studies explicitly conceptualized the labor market as the ultimate customer of higher education, nor did any operationalize graduates as the primary service output within a SERVQUAL-based evaluation framework. Although several studies acknowledged labor market pressures, employability concerns, or skills mismatches in their introductory or discussion sections—particularly in technical and professionally oriented fields (e.g., Goumairi et al., 2020; Utkirov, 2024)—these issues were not integrated into the SERVQUAL measurement logic. Employers were never included as evaluators of service quality, and graduate competencies, employability outcomes, or workforce readiness were not incorporated as measurable dimensions of quality. Instead, SERVQUAL applications consistently terminated at the point of service delivery to students, treating education as a consumptive experience rather than as a value-creation process. As a result, graduates were implicitly framed as satisfied or dissatisfied customers rather than as products whose quality could be assessed by external stakeholders such as employers or labor market institutions.

This finding highlights a systematic conceptual limitation in SERVQUAL-based educational research. By excluding labor market perspectives, existing applications offer a partial, inward-looking assessment of educational quality—one that prioritizes internal service processes while overlooking the external validation of educational outcomes. This limitation is particularly consequential in contexts characterized by graduate unemployment, skills gaps, and increasing demands for accountability in higher education systems.

5.3. Comparison with Prior Reviews and Related Literature

The findings of this review are broadly consistent with earlier research documenting the widespread adoption of SERVQUAL in higher education and its effectiveness in identifying service quality gaps from the student perspective (Tan & Kek, 2004; Ramaiyah et al., 2009; Saliba & Gorenc Zoran, 2018). Like prior studies, this review confirms SERVQUAL's flexibility, diagnostic clarity, and ease of application in educational environments. However, the present review extends existing literature in two important ways. First, rather than focusing primarily on instrument validity or dimensional structure, it explicitly examines whose perspective is being measured. While earlier studies proposed modifying SERVQUAL to better fit educational contexts (Abu Warda, 2007; Çerri, 2012), these adaptations largely preserved the underlying assumption that students are the primary customers. Second, when compared with the broader higher education quality assurance and employability literature—which increasingly emphasizes learning outcomes, graduate attributes, and employer satisfaction—the SERVQUAL-based education literature appears theoretically conservative. This disconnect suggests a

growing gap between quality discourse, which stresses outcome-based education and labor market alignment, and quality measurement practice, which remains focused on student satisfaction and service delivery.

5.4. Implications for Educational Institutions and Policymakers

From an institutional perspective, the findings suggest that higher education institutions relying exclusively on SERVQUAL-based student satisfaction surveys may obtain an incomplete and potentially misleading picture of educational quality. While such assessments are valuable for improving facilities, administrative processes, and student support services, they provide limited insight into whether programs are producing graduates who meet labor market expectations. For policymakers, accreditation agencies, and quality assurance bodies, the results underscore the need to promote multi-stakeholder evaluation frameworks. Integrating employer feedback, graduate performance indicators, and labor market outcomes with SERVQUAL-based student assessments would support more comprehensive, outcome-oriented quality assurance systems, particularly in technical and vocational education.

5.5. Future Research Directions

Building directly on the answers to the research questions, several directions for future research emerge:

Labor-market-oriented SERVQUAL adaptations should be developed that explicitly treat employers as customers and graduates as service outputs.

Multi-perspective SERVQUAL studies should simultaneously capture and compare the perceptions of students, graduates, employers, and academic staff.

Longitudinal research designs should extend SERVQUAL assessments beyond graduation to examine links between perceived service quality and employment outcomes. Comparative studies should evaluate SERVQUAL alongside outcome-based and employability-focused models to assess their relative explanatory power.

In direct response to the research questions, this systematic review demonstrates that SERVQUAL has been widely applied in education primarily as a student-centered service quality assessment tool, with limited stakeholder diversity. Most importantly, none of the reviewed studies conceptualized the labor market as the ultimate customer or graduates as the primary service output of educational institutions. Addressing this gap represents a critical opportunity to advance educational quality assessment and to realign SERVQUAL-based evaluation with contemporary demands for employability, accountability, and labor market relevance.

6. Conclusion and Contributions

This systematic review examined how the SERVQUAL model has been applied to measure the quality of educational services and identified the stakeholder perspec-

tives that have guided these applications. Drawing on 30 empirical studies published between 2004 and 2024 and selected through a rigorous PRISMA-based review process, the study provides a comprehensive and structured synthesis of SERVQUAL use in educational contexts across diverse geographical regions, institutional types, and educational levels.

In response to the central research question, the findings demonstrate that SERVQUAL has been widely and consistently used to assess educational service quality, primarily by measuring gaps between students' expectations and perceptions across the five core SERVQUAL dimensions: tangibility, reliability, responsiveness, assurance, and empathy. Across public and private universities, post-graduate programs, and distance education settings, SERVQUAL has been used predominantly to evaluate operational and administrative aspects of education, such as facilities, service efficiency, staff behavior, and institutional responsiveness. The reviewed studies collectively confirm SERVQUAL's diagnostic value in identifying service quality deficiencies and supporting internal improvement initiatives within educational institutions.

Regarding the sub-question, this review reaches a clear and unequivocal conclusion: SERVQUAL-based educational studies have not conceptualized the labor market as the ultimate customer, nor have they treated graduates as the primary service output of educational institutions. Although several studies acknowledged employability concerns, skills mismatches, or labor market challenges in their contextual discussions, these considerations were not operationalized within the SERVQUAL measurement framework. Employers were not included as evaluators, and graduate outcomes were not embedded as dimensions of educational service quality. Consequently, SERVQUAL applications in education remain predominantly student-centered and inward-looking, emphasizing service delivery during the period of study rather than outcome-oriented assessments of graduate readiness, workforce relevance, or societal impact.

6.1. Theoretical Contributions

This review makes several important theoretical contributions to the literature on service quality and educational evaluation. First, it advances SERVQUAL scholarship in education by adopting a stakeholder-oriented synthesis, shifting the analytical focus from how SERVQUAL is measured to whose perspectives are being measured. By systematically examining stakeholder representation across studies, the review reveals a persistent conceptual bias toward the student-as-customer paradigm, thereby exposing a foundational limitation in existing SERVQUAL-based educational research. Second, the study contributes to educational quality theory by highlighting the conceptual distinction between service satisfaction and educational effectiveness. The dominance of student-centered SERVQUAL applications underscores the risk of equating perceived service quality with educational success, while neglecting outcome-based dimensions such as learning effectiveness, skill development, and employability. This distinction reinforces the need to

reconceptualize educational quality as a multi-stakeholder construct rather than a unidirectional service encounter. Third, and most significantly, this review identifies and articulates a novel conceptual gap by explicitly framing the labor market as a missing stakeholder in SERVQUAL applications. By demonstrating that graduates have never been treated as service outputs and employers as ultimate customers, the study opens new theoretical pathways for integrating service quality theory with outcome-based education, employability frameworks, and human capital development models.

6.2. Methodological Contributions

From a methodological standpoint, this study demonstrates the value of applying a PRISMA-based systematic review approach to service quality research in education. By transparently documenting the identification, screening, and eligibility stages that reduced an initial pool of 98 records to a final sample of 30 studies, the review enhances methodological rigor, transparency, and replicability. In addition, classifying SERVQUAL applications by measurement purpose (service delivery assessment, institutional performance evaluation, and context-specific adaptation) and stakeholder perspective provides a structured analytical framework that can be adopted in future systematic reviews and empirical investigations of service quality models in education and related fields.

6.3. Practical and Policy Contributions

The findings of this review have important implications for educational institutions, quality assurance agencies, and policymakers. While SERVQUAL-based student satisfaction assessments offer valuable insights for improving internal service delivery and enhancing the student experience, reliance on such assessments alone may yield partial and potentially misleading evaluations of educational quality. For educational institutions, the results suggest the need to complement student-centered SERVQUAL assessments with outcome-oriented indicators, including graduate employability, employer satisfaction, and workforce performance. For policymakers and accreditation bodies, the review underscores the importance of promoting multi-stakeholder quality evaluation frameworks that align educational quality measurement with national employment strategies, workforce planning objectives, and qualification frameworks.

In conclusion, this systematic review demonstrates that although SERVQUAL remains a widely used and effective tool for assessing educational service quality, its application has been largely confined to student-centered evaluations of service delivery. The systematic absence of labor-market-oriented perspectives and the failure to treat graduates as service outputs represent a critical theoretical and methodological gap in the literature. Addressing this gap offers a promising pathway to advance educational quality assessment and strengthen the alignment between higher education systems and labor market needs in an increasingly accountability-driven, skills-oriented global environment.

Availability of Data and Materials

All data generated or analyzed during this study are included in the published articles reviewed in this manuscript. No new datasets were generated.

Author Contributions

Afnan Mohammed Jameel Mandili: Conceptualization, methodology, literature search, data curation, formal analysis, investigation, visualization, writing—original draft, and manuscript preparation.

Dr. M. Mirahan-Zedan: Supervision, conceptual guidance, methodology refinement, critical review and editing of the manuscript, validation, and overall project administration.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- Abdullah, F. (2006). Measuring Service Quality in Higher Education: Three Instruments Compared. *International Journal of Research & Method in Education*, 29, 71-89. <https://doi.org/10.1080/01406720500537445>
- Abu Warda, K. I. (2007). The Effect of a Specialized Physical Conditioning Training Program on the Performance Score of the Compulsory Routine on the Pommel Horse Apparatus for Junior Gymnasts. *Scientific Journal of Research and Studies in Physical Education*, 15, 40-72.
- Al-Badawi, A. M., & Al-Qahtani, I. S. (2019). Using the SERVQUAL Perceptions-Expectations Model to Measure the Quality of Educational Services in Public Education Schools in the URBAN area of Abha. *Journal of the Faculty of Education—Al-Azhar University*, 184, 211-245. (In Arabic)
- Al-Ghaili, R. Y. (2018). Students' Perceptions of the Quality of University Services at the University of Science and Technology in Yemen according to the SERVQUAL Service Quality Model. *Arab Journal of Administration*, 38, 77-108. (In Arabic)
- Al-Rabbah, A. L. A. (2020). The Gap between Perceptions and Expectations of the Quality of Educational Services Provided to Master's Students in the Department of Foundations of Education at the College of Social Sciences, Imam Muhammad ibn Saud Islamic University. *Journal of Educational Sciences*, 10, 133-168. (In Arabic)
- Al-Zahrani, A. A., & Mohammed, M. S. (2010). Measuring the Quality of Educational Services Using the Perceptions-Expectations Scale (SERVQUAL): A Field Study Applied to the Community College in Riyadh, King Saud University. *Journal of Contemporary Business Research*, 24, 2-52. (In Arabic)
- Barakat, Z. (2010). The Gap between Perceptions and Expectations in Measuring the Quality of Services Provided by Al-Quds Open University from the Students' Perspective. *The Palestinian Journal for Open and Distance Education*, 2, 89-120. (In Arabic)
- Bramer, W. M., De Jonge, G. B., Rethlefsen, M. L., Mast, F., & Kleijnen, J. (2018). A Systematic Approach to Searching: An Efficient and Complete Method to Develop Literature Searches. *Journal of the Medical Library Association*, 106, 531-541. <https://doi.org/10.5195/jmla.2018.283>
- Braun, V., & Clarke, V. (2006). Using Thematic Analysis in Psychology. *Qualitative Re-*

- search in Psychology*, 3, 77-101. <https://doi.org/10.1191/1478088706qp0630a>
- Çerri, S. (2012). Assessing the Quality of Higher Education Services Using a Modified Servqual Scale. *Annales Universitatis Apulensis Series Oeconomica*, 2, 664-679. <https://doi.org/10.29302/oeconomica.2012.14.2.32>
- Goumairi, O., Aoula, E., & Souda, S. B. (2020). Application of the SERVQUAL Model for the Evaluation of the Service Quality in Moroccan Higher Education: Public Engineering School as a Case Study. *International Journal of Higher Education*, 9, 223-229. <https://doi.org/10.5430/ijhe.v9n5p223>
- Gregory, J. L. (2019). Applying SERVQUAL: Using Service Quality Perceptions to Improve Student Satisfaction and Program Image. *Journal of Applied Research in Higher Education*, 11, 788-799.
- Hajdari, S. (2019). Measuring Service Quality in Higher Education Using SERVQUAL Model: Evidence from an Albanian Public Faculty. *International Journal of Economics, Commerce and Management*, 7, 119-128.
- Harrison, H., Griffin, S. J., Kuhn, I., & Usher-Smith, J. A. (2020). Software Tools to Support Title and Abstract Screening for Systematic Reviews in Healthcare: An Evaluation. *BMC Medical Research Methodology*, 20, Article No. 7. <https://doi.org/10.1186/s12874-020-0897-3>
- Hasnain, M. M., & Al-Sharbinni, G. H. (2017). A Proposed Strategy for Developing Educational Services Provided to Postgraduate Students at King Khalid University according to the SERVQUAL Scale and in Light of the Afaaq Vision. *International Journal of Specialized Education*, 6, 77-110. (In Arabic)
- Leonnard, (2018). The Performance of Servqual to Measure Service Quality in Private University. *Journal on Efficiency and Responsibility in Education and Science*, 11, 16-21. <https://doi.org/10.7160/eriesj.2018.110103>
- Li, L., & Teh, S. Y. (2021). Measuring Higher Education Service Quality during COVID-19 Pandemic in China Using a SERVQUAL Method. *Studies of Applied Economics*, 39, 1-15. <https://doi.org/10.25115/eea.v39i10.5567>
- Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. *PLoS Medicine*, 6, e1000097. <https://doi.org/10.1371/journal.pmed.1000097>
- Okoli, C. (2015). A Guide to Conducting a Standalone Systematic Literature Review. *Communications of the Association for Information Systems*, 37, Article 43. <https://doi.org/10.17705/1CAIS.03743>
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing*, 64, 12-40.
- Ramaiyah, A., Jayaprakash, J. C. M., & Zain, A. N. M. (2009). A Research Framework Using SERVQUAL Instrument to Analyse the Quality of Services Provided by Private Institutions of Higher Learning in Malaysia. *International Journal of Value Chain Management*, 3, 335-345. <https://doi.org/10.1504/ijvcm.2009.031764>
- Robinson, K. A., & Lowe, D. J. (2018). Strengthening the Reporting of Literature Reviews: A Comparison of Reporting Guidelines. *Systematic Reviews*, 7, 86.
- Safar, M. A. M. (2021). An Analytical Reading of the Quality of Distance Education Services at Umm Al-Qura University in Light of SERVQUAL Gap Analysis during the COVID-19 Crisis. *Umm Al-Qura University Journal of Educational and Psychological Sciences*, 13, 55-88. (In Arabic)
- Saliba, K., & Gorenc Zoran, A. (2018). Measuring Higher Education Services Using the

SERVQUAL Model. *Journal of Universal Excellence*, 7, 160-179.

Shekarchizadeh, A., Rasli, A., & Hon-Tat, H. (2011). SERVQUAL in Malaysian Universities: Perspectives of International Students. *Business Process Management Journal*, 17, 67-81. <https://doi.org/10.1108/14637151111105580>

Tan, K. C., & Kek, S. W. (2004). Service Quality in Higher Education Using an Enhanced SERVQUAL Approach. *Quality in Higher Education*, 10, 17-24. <https://doi.org/10.1080/1353832242000195032>

Utkirov, A., & Utkirov, A. (2024). Servqual as a Tool for Measuring and Enhancing Higher Education Service Quality. *SSRN Electronic Journal*, 5 p. <https://doi.org/10.2139/ssrn.5029422>

Yousapronpaiboon, K. (2014). SERVQUAL: Measuring Higher Education Service Quality in Thailand. *Procedia—Social and Behavioral Sciences*, 116, 1088-1095. <https://doi.org/10.1016/j.sbspro.2014.01.350>