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PRELIMINARY DEVELOPMENT OF AN INSTRUMENT BLUEPRINT FOR ASSESSING LIBRARY SERVICE QUALITY IN TERMS OF EXCELLENT SERVICE BASED ON SERVQUAL

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Abstract

Academic libraries are evolving from traditional repositories into dynamic learning hubs that require continuous evaluation of service quality to support excellent service delivery. Existing measurement models such as SERVQUAL provide important conceptual foundations; however, their application in academic library settings often requires contextual adaptation to reflect user-centered service experiences. This study aims to develop a conceptual framework and preliminary instrument design for assessing library service quality based on excellent service principles. The study employed a literature-based instrument development approach through a review of established service quality models and their applications in library contexts. The process involved identifying relevant dimensions, synthesizing indicators from prior validated studies, and formulating preliminary item constructs adapted to academic library environments. Attention was given to integrating SERVQUAL dimensions with indicators associated with excellent service practices. The literature review identified several dimensions frequently associated with library service quality, including friendliness, responsiveness, service speed, communication ability, and professionalism. These dimensions were theoretically synthesized from previous empirical and conceptual studies and were used as the basis for developing measurable indicators suitable for Likert-scale assessment. In conclusion, this study provides a theoretically grounded conceptual basis for the development of a library service quality assessment instrument in academic library settings. The proposed dimensions and indicators may serve as a foundation for future empirical validation and instrument testing, as well as support library managers in evaluating and improving service quality through structured user feedback.

Keywords: library service quality, excellent service, SERVQUAL, instrument development, academic library, service evaluation.

Abstrak. Transformasi perpustakaan akademik dari sekadar tempat penyimpanan koleksi menjadi pusat pembelajaran yang dinamis menuntut adanya evaluasi berkelanjutan terhadap kualitas layanan guna mendukung pelayanan prima. Model pengukuran yang telah ada, seperti SERVQUAL, memberikan landasan konseptual yang penting, namun penerapannya dalam konteks perpustakaan akademik sering kali memerlukan penyesuaian kontekstual agar mampu mencerminkan pengalaman layanan yang berpusat pada pengguna. Penelitian ini bertujuan untuk mengembangkan kerangka konseptual dan rancangan awal instrumen penilaian kualitas layanan perpustakaan berbasis prinsip *excellent service*. Penelitian ini menggunakan pendekatan pengembangan instrumen berbasis kajian literatur melalui telaah terhadap berbagai model kualitas layanan yang telah mapan beserta penerapannya dalam konteks perpustakaan. Proses penelitian meliputi identifikasi dimensi yang relevan, sintesis indikator dari penelitian terdahulu yang telah tervalidasi, serta perumusan konstruk butir awal yang disesuaikan dengan lingkungan perpustakaan akademik. Penelitian ini juga memperhatikan integrasi dimensi SERVQUAL dengan indikator-indikator yang berkaitan dengan praktik pelayanan prima. Hasil kajian literatur menunjukkan beberapa dimensi yang sering dikaitkan dengan kualitas layanan perpustakaan, antara lain keramahan, daya tanggap, kecepatan layanan, kemampuan komunikasi, dan profesionalisme. Dimensi-dimensi tersebut disintesis secara teoritis dari berbagai studi empiris dan konseptual sebelumnya, kemudian digunakan sebagai dasar dalam pengembangan indikator yang dapat diukur menggunakan skala Likert. Penelitian ini menyimpulkan bahwa pengembangan instrumen penilaian kualitas layanan perpustakaan di lingkungan perpustakaan akademik memerlukan landasan konseptual yang kuat dan relevan secara kontekstual. Dimensi dan indikator yang diusulkan dapat menjadi dasar bagi penelitian lanjutan dalam proses validasi empiris dan pengujian instrumen, sekaligus mendukung pengelola perpustakaan dalam mengevaluasi dan meningkatkan kualitas layanan melalui umpan balik pengguna yang terstruktur.

Kata kunci: kualitas layanan perpustakaan; pelayanan prima; SERVQUAL; pengembangan instrumen; perpustakaan akademik; evaluasi layanan.

Background

The transformation of university libraries in the digital era has fundamentally shifted their role from conventional repositories of printed collections into dynamic learning hubs that support teaching, research, and student development. Contemporary academic libraries are no longer viewed merely as physical storage spaces for books and archives, but as integrated academic environments that facilitate access to information, digital literacy, collaborative learning, and research engagement among students. In this context, libraries function as strategic academic infrastructures within higher education institutions by providing access to scholarly resources, learning facilities, and information services that support the overall educational process (Syukrinur, 2023). Collections such as books, scientific journals, electronic databases, and digital repositories, combined with learning spaces and technological facilities, position libraries as essential components in fostering lifelong learning and academic competency development among students (Syukrinur, 2023; Alam, 2020). Moreover, librarians have increasingly evolved into academic partners who actively assist students through information literacy instruction, research consultation, digital reference services, and academic support activities (Harahap, 2024; Azis et al., 2024; Hartono, 2025). These transformations highlight the growing importance of libraries in promoting independent, critical, and information-driven learning practices within higher education.

Beyond their informational and academic functions, university libraries also play a significant role in fostering student engagement and academic participation outside formal classroom settings. Previous studies have demonstrated that library facilities, including individual study areas, collaborative learning spaces, access to academic collections, and various support services, contribute positively to active learning, collaborative engagement, and the development of students' academic skills (DeVille & Sughrue, 2023; Shoaib et al., 2025; Zheng et al., 2024; Soria et al., 2017). The utilization of both physical and digital library services has been consistently associated with higher levels of academic engagement, scholarly activity, and academic achievement among university students (Scoulas et al., 2024; DeVille & Sughrue, 2023). Libraries additionally serve as social-academic environments that encourage intellectual interaction and strengthen students' sense of belonging within the campus community (Appleton, 2020; Zhu et al., 2025). Consequently, student participation in learning extends beyond classroom attendance and manifests through activities such as library visits, use of learning facilities, participation in information literacy programs, and interactions with librarians as part of a broader academic learning experience.

Despite the recognized strategic role of university libraries in supporting student engagement and learning participation, empirical evidence indicates that library utilization among students remains suboptimal in many higher education contexts. Several studies report that although students acknowledge libraries as important academic resources, their usage patterns tend to be situational rather than habitual (Sari et al., 2025; Fingillah & Zuru, 2025; DeVille & Sughrue, 2023). Many students visit libraries primarily for specific academic purposes, such as completing assignments, preparing for examinations, or accessing temporary learning resources, rather than integrating library use into their regular study routines (Latifah & Nugraha, 2023; Mvula & Muchinga, 2024). This condition reflects a noticeable gap between the ideal conceptualization of libraries as learning hubs and the actual behavior of students in utilizing library services and facilities.

One of the critical factors influencing students' willingness to utilize libraries is the quality of library services. In higher education settings, service quality extends beyond the availability of collections and facilities and includes the overall experience students receive during their interactions with library personnel and systems. Excellent service in libraries refers to responsive, reliable, empathetic, and user-oriented services that are capable of meeting and exceeding users' expectations (Rahman et al., 2023; Wahyuni, 2023). Librarians are expected not only to manage information resources but also to function as facilitators of learning by assisting students in accessing information, conducting research, and developing information literacy competencies (Hartono, 2025; Ridwan et al., 2023). Service dimensions such as responsiveness, communication skills, professionalism, empathy, and service accessibility are

therefore essential indicators of library service quality. Previous research has shown that positive service experiences significantly influence user satisfaction, loyalty, and students' intention to revisit and utilize library services more intensively (Hermanto, 2019; Sari et al., 2023; Rahman et al., 2023).

Although service quality has become an important concern in library management, the assessment of library service quality frequently relies on generalized evaluation instruments that may not adequately capture the specific characteristics of excellent service within academic library environments. Existing instruments often focus broadly on satisfaction or service performance without emphasizing dimensions closely related to students' academic experiences and engagement. Furthermore, many studies tend to evaluate library facilities and service quality separately, despite the fact that students' learning experiences within libraries are shaped by the interaction between physical environments and service encounters (Zheng et al., 2024; Shoaib et al., 2025; Yuan & Yang, 2023). This limitation highlights the need for more focused and contextually relevant measurement instruments capable of assessing excellent service quality specifically within university libraries.

In the context of higher education institutions in Indonesia, studies concerning library service quality have primarily concentrated on user satisfaction, digital transformation, or general service evaluation, while limited attention has been given to the development of specialized instruments that comprehensively assess excellent service dimensions in academic libraries (Mukhtaruddin et al., 2022; Yuliani, 2022). Additionally, differences in institutional characteristics, student learning cultures, and library management practices indicate that service quality instruments should be context-sensitive and adaptable to local educational environments. Consequently, the development of a specific instrument focusing on excellent service within university libraries becomes increasingly important to support evidence-based evaluation and quality improvement initiatives.

This study therefore aims to develop an instrument for assessing library service quality in terms of excellent service within the context of higher education libraries. The instrument is expected to provide a systematic framework for evaluating service dimensions related to responsiveness, empathy, communication, professionalism, and user support in academic library services. By developing a contextually relevant assessment instrument, this study contributes theoretically to the advancement of library service quality research and practically to the improvement of academic library management and student-centered services in higher education institutions. To provide clearer research direction, this study addresses the following research objectives: (1) to identify the core dimensions that constitute excellent service quality in academic libraries based on SERVQUAL and related library service literature; and (2) to formulate measurable indicators that can be operationalized into a contextually

relevant library service quality assessment instrument for higher education institutions. Accordingly, the study is guided by two research questions: (1) What dimensions characterize excellent service quality in university libraries? and (2) What indicators can be used to operationalize these dimensions into a measurable assessment framework for academic library services?

Method

This study employed a research and development approach focusing on the development of an instrument for assessing library service quality in terms of excellent service in higher education libraries. The study was limited to the stage of instrument development and did not include empirical testing, validity testing, or reliability analysis. Therefore, the primary objective of this research was to produce a conceptual and structured assessment instrument based on theoretical foundations and relevant literature regarding excellent library services (Rahman et al., 2023; Wahyuni, 2023; Hartono, 2025).

The development process was conducted through the following stages: (a) The initial stage involved a comprehensive review of literature related to library service quality, excellent service, student engagement, and academic library services. Relevant theories, empirical findings, and previous service quality frameworks were analyzed to identify the core dimensions of excellent service in university libraries. Sources included journal articles, books, and previous studies concerning academic library management and service evaluation (Hermanto, 2019; Rahman et al., 2023; Zhu et al., 2025). (b) Based on the literature analysis, several dimensions of excellent service were identified and operationalized into measurable indicators. The dimensions were formulated to represent the essential characteristics of excellent library services, including responsiveness, empathy, communication skills, professionalism, reliability, and accessibility of services (Rifngati, 2016; Wahyuni, 2023; Ridwan et al., 2023).

The instrument was designed in the form of a closed-ended questionnaire using a five-point Likert scale ranging from strongly disagree to strongly agree (Sugiyono, 2019). At this stage, questionnaire items were developed based on predefined indicators. The statements were formulated using clear, concise, and contextually appropriate language to ensure that each item reflected the intended aspect of excellent library service. The item construction process emphasized clarity, relevance, and consistency with the conceptual framework of the study (Azwar, 2018; Creswell, 2018). The primary data source in this study consisted of theoretical references and previous empirical studies related to library service quality and excellent service. Since the study focused solely on instrument development, no field testing or respondent-based data collection was conducted.

The data analysis in this study was conducted qualitatively through content analysis and conceptual mapping of the literature findings. The analysis focused on identifying relevant service dimensions, synthesizing theoretical concepts, and formulating indicators appropriate for the development of the assessment instrument (Miles et al., 2014).

Result and Discussion

The assessment of library service quality is a critical component in achieving excellent service, maintaining user satisfaction, and ensuring the continued relevance of academic libraries in the digital era. Recent studies emphasize that systematic evaluation, appropriate measurement models, and the development of new instruments are essential to address the limitations of existing tools and to better reflect evolving user expectations in higher education libraries (Barfi et al., 2023; Mamta & Kumar, 2023; Ajith et al., 2023; Emmanuel & Liu, 2021; Ramadhan et al., 2025; Ndinde, 2024).

Library service quality evaluation plays an essential role in identifying strengths and weaknesses in service delivery to ensure alignment with users' needs and expectations, which are continuously evolving in the digital academic environment (Barfi et al., 2023; Mamta & Kumar, 2023; Ajith et al., 2023; Emmanuel & Liu, 2021; Ramadhan et al., 2025; Ndinde, 2024). Regular evaluation from the user perspective is widely recognized as one of the most effective approaches to determine the level of service quality and overall library effectiveness (Barfi et al., 2023; Sayekti et al., 2022; Ajith et al., 2023; Emmanuel & Liu, 2021; Reconsal, 2026; Ndinde, 2024).

In addition, evaluation results are not only used for internal improvement but also serve broader institutional purposes such as strategic planning, budget justification, accreditation processes, and enhancing institutional reputation (Barfi et al., 2023; Ajith et al., 2023; Oh, 2022; Prastyabudi & Latifah, 2024; Ramadhan et al., 2025; Ndinde, 2024). This highlights that service quality assessment is an integral part of library management and governance in higher education institutions.

Various models have been developed to assess library service quality, each with different conceptual focuses and dimensions. The SERVQUAL model remains one of the most widely used frameworks, measuring service quality through five dimensions: tangibles, reliability, responsiveness, assurance, and empathy, based on the gap between user expectations and perceptions (Mamta & Kumar, 2023; Prastyabudi & Latifah, 2024; Landrum & Prybutok, 2004; Lin & Foo, 2002; Ho et al., 2023).

Similarly, the LibQUAL(+) model is widely adopted in academic library contexts, focusing on three main dimensions: Affect of Service, Information Control, and Library as Place (Barfi et al., 2023; Mamta & Kumar, 2023; Sayekti et al., 2022; Emmanuel & Liu, 2021;

Reconsal, 2026; Ramadhan et al., 2025). Other models such as the Library Customer Satisfaction Index (LCSI Lite) emphasize the relationship between service quality, user satisfaction, and loyalty, incorporating aspects such as personnel, resources, and facilities (Oh, 2022).

In addition, modified SERVQUAL-based instruments have been developed in different contexts, including adaptations that incorporate caring, competence, resources, and library as place, sometimes using multiple expectation levels to capture user perceptions more comprehensively (Alam & Mezbah-UI-Islam, 2020; Hossain, 2016). Other frameworks include service effectiveness criteria such as user satisfaction, collection quality, staff performance, efficiency, and accessibility (Ajith et al., 2023), as well as the Kano model, which classifies service attributes into categories such as must-be and attractive qualities (Noh, 2025).

Table 1. Main models and dimensions of library service quality measurement

Model / Instrument	Main Focus / Dimensions	Sources
SERVQUAL	Tangibles, reliability, responsiveness, assurance, empathy; based on the expectation–perception gap model	Mamta & Kumar (2023); Prastyabudi & Latifah (2024); Landrum & Prybutok (2004); Lin & Foo (2002); Ho et al. (2023)
LibQUAL(+)	Affect of Service, Information Control, Library as Place	Barfi et al. (2023); Mamta & Kumar (2023); Sayekti et al. (2022); Emmanuel & Liu (2021); Reconsal (2026); Ramadhan et al. (2025)
LCSI Lite	Service quality → satisfaction → loyalty (personnel, resources, facilities)	Oh (2022)
Modified SERVQUAL (Bangladesh)	Caring, competence, resources, library as place; three levels of expectations	Alam & Mezbah-UI-Islam (2020); Hossain (2016)
Service effectiveness framework	Criteria: user satisfaction, collection, staff, efficiency, accessibility	Ajith et al. (2023)
Kano model	Classification of attributes such as must-be, one-dimensional, and attractive quality	Noh (2025)

Recent studies indicate that library service quality assessment has increasingly shifted toward user-centered approaches, emphasizing perceptions and expectations rather than solely relying on quantitative indicators such as collection size or usage statistics (Mamta & Kumar, 2023; Ajith et al., 2023; Emmanuel & Liu, 2021; Partap, 2019). Questionnaire-based surveys using Likert scales remain the dominant method for measuring service quality and developing new measurement instruments in library research (Mamta & Kumar, 2023; Ajith et al., 2023; Oh, 2022; Alam & Mezbah-UI-Islam, 2020; Hossain, 2016; Reconsal, 2026; Ndinde, 2024).

Moreover, several studies have attempted to develop new frameworks or indices, such as LCSI Lite and other effectiveness-based models, to provide more operational and managerial indicators for library performance evaluation (Ajith et al., 2023; Oh, 2022). These

developments reflect an ongoing effort to improve the precision and applicability of measurement tools in academic library settings.

Despite their widespread use, existing service quality measurement models such as SERVQUAL and LibQUAL have been widely criticized for their limitations. One major concern is that these models were originally developed in commercial service contexts and later adapted for libraries, which may result in insufficient representation of the unique characteristics of academic library user experiences (Mamta & Kumar, 2023; Sayekti et al., 2022; Ajith et al., 2023).

Systematic reviews also reveal a heavy reliance on questionnaire-based surveys with relatively small and homogeneous samples, particularly within academic library settings, which limits the generalizability of findings across different types of libraries (Mamta & Kumar, 2023). Furthermore, some studies argue that no single model fully captures library service quality in a comprehensive manner, highlighting the need for integrative approaches that combine traditional and emerging indicators (Ajith et al., 2023; Partap, 2019; Ndinde, 2024).

Additional critiques of LibQUAL suggest that it may overemphasize certain dimensions such as librarian professionalism while underrepresenting immediate information needs or specific forms of academic assistance required by users (Sayekti et al., 2022). Other studies further highlight that many existing instruments fail to incorporate important dimensions such as gender perspectives, digital service experience, broadband accessibility, or alternative satisfaction classifications such as the Kano model (Ritzo et al., 2022; Boyce, 2017; Ramadhan et al., 2025; Noh, 2025).

Overall, the literature confirms that library service quality evaluation is essential for achieving and sustaining excellent service in academic libraries. While established models such as SERVQUAL and LibQUAL provide valuable frameworks, they exhibit conceptual and contextual limitations that necessitate further development. Current research trends increasingly emphasize the need for more comprehensive, user-centered, and context-sensitive instruments that integrate both traditional service dimensions and emerging digital and experiential aspects of library services. These gaps justify the development of a new instrument specifically designed to assess library service quality in terms of excellent service within contemporary academic library environments.

Excellent service in public service contexts such as libraries, healthcare, immigration offices, and education is generally grounded in service quality theory, particularly the SERVQUAL model and its subsequent adaptations in public sector service frameworks. These theories provide a strong conceptual foundation for defining and operationalizing indicators of service excellence in academic library environments.

The SERVQUAL model developed by Parasuraman, Zeithaml, and Berry remains the most widely used framework for assessing service quality. It identifies five core dimensions: tangibles, reliability, responsiveness, assurance, and empathy (Fadhlya et al., 2017; Sugiarto & Octaviana, 2021; Zygiaris et al., 2022; Alfatafta et al., 2025; Setiono & Hidayat, 2022; Setiawan et al., 2026; Taylor, 2024; Mabini et al., 2024; Lamichhane et al., 2025; Suryaman & Tukiran, 2025). This model has been extensively applied in public services and educational institutions, including libraries, hospitals, and government agencies, due to its ability to capture the gap between user expectations and perceived service performance.

In the Indonesian public service context, SERVQUAL is widely adopted as the primary theoretical foundation for evaluating excellent service, particularly in measuring user satisfaction and service performance in libraries and other public institutions (Fadhlya et al., 2017; Zygiaris et al., 2022; Alfatafta et al., 2025; Setiono & Hidayat, 2022; Rahmatia et al., 2025; Mabini et al., 2024; Suryaman & Tukiran, 2025; Suhartini, 2023). The following table presents the alignment between the research indicators and their corresponding theoretical dimensions.

Table 2. Mapping of excellent service indicators to theoretical service quality dimensions

Research Indicators	Theoretical Equivalent	Brief Explanation	Sources
Staff friendliness	Empathy, Assurance	Politeness, respect, and a user-centered attitude	Fadhlya et al. (2017); Zygiaris et al. (2022); Alfatafta et al. (2025); Maksum et al. (2026); Rahmatia et al. (2025); Mabini et al. (2024); Akeem et al. (2021)
Responsiveness	Responsiveness	Willingness to help and promptly address user needs or complaints	Fadhlya et al. (2017); Sugiarto & Octaviana (2021); Zygiaris et al. (2022); Alfatafta et al. (2025); Setiono & Hidayat (2022); Rahmatia et al. (2025); Mabini et al. (2024); Suryaman & Tukiran (2025); Suhartini (2023); Adiputra & Sari (2026); Akeem et al. (2021)
Service speed	Responsiveness, Reliability	Timeliness and consistency in delivering services according to standards	Fadhlya et al. (2017); Sugiarto & Octaviana (2021); Zygiaris et al. (2022); Alfatafta et al. (2025); Setiono & Hidayat (2022); Rahmatia et al. (2025); Mabini et al. (2024); Suryaman & Tukiran (2025); Suhartini (2023); Adiputra & Sari (2026)
Communication ability	Assurance, Empathy	Clarity of information, explanation of services, and user guidance	Zygiaris et al. (2022); Alfatafta et al. (2025); Maksum et al. (2026); Rahmatia et al. (2025); Mabini et al. (2024); Adiputra & Sari (2026)
Empathy	Empathy	Individual attention and understanding of user needs	Fadhlya et al. (2017); Sugiarto & Octaviana (2021); Zygiaris et al. (2022); Alfatafta et al. (2025); Setiono & Hidayat (2022); Maksum et al. (2026); Rahmatia et al. (2025); Mabini et al. (2024); Lamichhane et al. (2025); Suryaman & Tukiran (2025); Adiputra & Sari (2026); Akeem et al. (2021)

Research Indicators	Theoretical Equivalent	Brief Explanation	Sources
Professionalism	Reliability, Assurance, Ability, Appearance	Competence, expertise, adherence to procedures, and professional conduct	Fadhlya et al. (2017); Zygiaris et al. (2022); Dharmawan et al. (2025); Nugraha et al. (2025); Setiono & Hidayat (2022); Setiawan et al. (2026); Rahmatia et al. (2025); Suryaman & Tukiran (2025); Suhartini (2023)

The dimensions of excellent service in this study are strongly grounded in SERVQUAL theory and its public service adaptations. Friendliness and empathy reflect the empathy and assurance dimensions, responsiveness and service speed correspond to responsiveness and reliability, communication ability aligns with assurance and empathy, while professionalism integrates reliability, assurance, competence, and appearance. This theoretical integration provides a solid foundation for constructing research indicators that are contextually relevant to library service quality assessment in higher education institutions.

The development of instruments to measure excellent service quality in academic libraries generally follows a systematic and structured procedure. This process includes defining dimensions based on established theories, constructing item statements, conducting pilot testing, and subsequently validating the instrument using reliability and factor analysis techniques. Most studies in library service evaluation emphasize the importance of grounding instrument development in SERVQUAL, LibQUAL(+), or their modified versions to ensure conceptual and contextual relevance to modern library services (Hossain, 2016; Alam & Mezbah-UI-Islam, 2020; Mamta & Kumar, 2023; Ajith et al., 2023; Panahi et al., 2023).

The first step in instrument development is identifying relevant dimensions and operational indicators. In library service quality studies, these dimensions are commonly derived from SERVQUAL and LibQUAL(+) frameworks, which have been widely adapted for academic library contexts. Typical dimensions include caring or empathy, competence, responsiveness, tangibles or facilities, resources, and library as a place (Hossain, 2016; Alam & Mezbah-UI-Islam, 2020; Hossain & Ahmed, 2013; Alam, Wares-UI-Matin, & Begum, 2024).

These theoretical dimensions are further refined through an extensive literature review to ensure alignment with contemporary library service practices, particularly in digital and user-centered academic environments (Mamta & Kumar, 2023; Ajith et al., 2023; Panahi et al., 2023). This stage ensures that each construct reflects measurable aspects of service quality relevant to user experience.

After determining the dimensions, the next step involves constructing item statements that reflect each indicator. Previous studies demonstrate that item development typically begins with a larger pool of statements, which are later refined through expert judgment and empirical testing.

For example, Hossain (2016) developed an initial set of 28 items based on a modified SERVQUAL framework. These items were tested through a pilot survey to evaluate clarity, relevance, and structure before being used in broader data collection. Following exploratory factor analysis, the final instrument consisted of 26 items distributed across four dimensions: caring (9 items), competence (5 items), resources (7 items), and library as a place (5 items).

Similarly, other studies have developed instruments with approximately 30 items across five dimensions, constructed through adaptation of SERVQUAL and consultation with library experts (Hossain & Ahmed, 2013; Alam, Wares-UI-Matin, & Begum, 2024). In the development of LibQUAL-based instruments, item generation typically begins with a comprehensive literature review and compilation of candidate items from previous empirical studies (Panahi et al., 2023). These findings indicate that item refinement is a critical phase to ensure validity and contextual relevance.

Various studies in library service quality demonstrate differences in the number of items and measurement formats used. The table below summarizes several representative instruments:

Table 3. Examples of item numbers and Likert scales in service quality instruments

Instrument / Model	Items and Dimensions	Likert Scale Format	Source
Modified SERVQUAL (Bangladesh: caring, competence, resources, library as place)	28 initial → 26 final (9+5+7+5)	7-point scale (desired, minimum, perception)	Hossain (2016)
Academic SERVQUAL model (Bangladesh)	28 items, 5 dimensions	7-point scale (minimum, desired, actual)	Alam & Mezbah-UI-Islam (2020)
Individual differences SERVQUAL adaptation	30 items, 5 dimensions	7-point scale	Alam, Wares-UI-Matin, & Begum (2024)
Service quality–satisfaction SEM model	30 service items + 8 satisfaction items	7-point scale	Alam & Mezbah-UI-Islam (2022)
LCSI Lite (public library)	13 items (personnel, resources, facilities, satisfaction, loyalty)	5-point scale	Oh (2022)
E-service quality (e-library)	22 attributes, 4 dimensions	5-point scale	Trivedi et al. (2021)
PUBLICSERV (public service quality)	55 initial → 50 final, 7 dimensions	5-point scale	Vieira & Ravanello (2024)

These variations indicate that most instruments fall within the range of 20–30 core items, particularly for service quality measurement in academic libraries. The development of library service quality instruments begins with theory-driven dimension identification, followed by systematic item construction and refinement. SERVQUAL and LibQUAL remain the dominant theoretical foundations, while newer studies increasingly adapt and expand these frameworks to reflect modern library service contexts. Likert scales, typically ranging from 5 to 7 points, are consistently used across studies, sometimes incorporating multi-column formats to capture expectation–perception gaps. Overall, instrument development in this field typically

involves 20–30 core items, ensuring a balance between comprehensiveness and practicality in measuring excellent service quality in academic libraries.

Based on the synthesis of SERVQUAL theory, LibQUAL(+), and previous studies on academic library service quality, this study proposes a preliminary instrument blueprint for assessing excellent service in higher education libraries. The proposed dimensions were selected to reflect both traditional service quality components and contemporary user-centered academic library experiences. Each dimension was operationalized into measurable indicators that represent important aspects of excellent service delivery in academic library environments.

The development of the instrument blueprint also considers the limitations of previous measurement models, particularly their limited emphasis on contextual academic support, communication quality, and digital accessibility. Therefore, the proposed instrument integrates interpersonal service dimensions, operational service effectiveness, and user support aspects into a more contextually relevant framework for higher education libraries.

Table 4 presents the proposed dimensions, operational definitions, indicators, and the preliminary distribution of questionnaire items for the instrument development process.

Table 4. Blueprint of the proposed instrument dimensions, indicators, and item distribution

Dimension	Operational Definition	Indicators	Example Measurable Aspects	Number of Items
Friendliness	The ability of library staff to demonstrate polite, respectful, and user-oriented behavior during service interactions	Courtesy, respectful attitude, welcoming behavior, positive interaction	Staff greets users politely; staff shows willingness to assist users	4
Responsiveness	The readiness and willingness of staff to respond promptly to user requests, complaints, and service needs	Prompt assistance, responsiveness to complaints, availability of support, problem-solving readiness	Staff responds quickly to user requests; staff provides immediate assistance when problems occur	5
Service Speed	The extent to which library services are delivered efficiently, consistently, and within reasonable waiting times	Timeliness, efficiency, service process speed, consistency	Borrowing and return services are completed quickly; users do not experience excessive waiting time	4
Communication Ability	The ability of staff to communicate information clearly and provide understandable guidance regarding library services	Clarity of explanation, guidance provision, information delivery, user understanding	Staff explains procedures clearly; users easily understand service information	4
Empathy	The extent to which staff understand users' needs and provide individualized attention	Attention to user needs, caring attitude, personal assistance, understanding difficulties	Staff understands users' problems; staff provides personalized assistance when needed	4
Professionalism	The competence and professional conduct of library staff in delivering	Competence, adherence to procedures, reliability, appearance, accountability	Staff demonstrates adequate knowledge; staff performs services according to procedures	5

Dimension	Operational Definition	Indicators	Example Measurable Aspects	Number of Items
	reliable and trustworthy services			
Accessibility and User Support	The ease with which users can access services, facilities, and academic support within the library	Ease of access, service availability, digital support, assistance accessibility	Users can easily access information services; digital services are available and functional	4

The dimensions and indicators in this study were selected based on their strong relevance to excellent service and academic library quality assessment. Friendliness was included because polite and respectful interactions significantly influence user satisfaction and support a positive learning environment. Responsiveness and service speed were chosen to represent staff readiness, operational efficiency, and timely assistance, which are essential in helping students access academic resources effectively. Communication ability was considered important because clear explanations and guidance reduce user confusion and strengthen confidence in library services. Empathy was included to reflect staff understanding of individual user needs and the provision of personalized attention, which contribute to user trust and emotional comfort. Professionalism was selected because reliable, competent, and ethical service delivery is fundamental to supporting research, information literacy, and academic activities. In addition, accessibility and user support were added to address the limitations of earlier models such as SERVQUAL and LibQUAL, particularly regarding digital access and modern user assistance needs. This dimension emphasizes the importance of easy information access, digital services, and academic support in contemporary higher education libraries, thereby strengthening the contextual relevance of the proposed instrument.

The proposed instrument was developed by integrating SERVQUAL dimensions, LibQUAL(+) concepts, and contemporary excellent service principles in public sector services. The selected dimensions were based on three main considerations: theoretical consistency with established service quality frameworks, contextual relevance to academic library environments, and responsiveness to gaps identified in previous studies, particularly related to user-centered experiences and digital-era academic support. The proposed 30-item structure follows common practices in library service quality instrument development, which generally utilize 20–30 Likert-scale items to balance comprehensive measurement and practical usability. As a result, this study produced a preliminary draft of a library service quality assessment instrument through literature review, dimension synthesis, indicator formulation, and item construction procedures.

Conclusion

This study identified the need for a more contextually relevant instrument to assess excellent service quality in academic libraries. The review of previous studies indicates that

widely used frameworks such as SERVQUAL and LibQUAL(+) provide important theoretical foundations for evaluating library service quality; however, these models still exhibit several conceptual and contextual limitations when applied to contemporary higher education library environments. Existing instruments tend to emphasize general service quality dimensions while providing limited attention to user-centered academic support, communication quality, digital accessibility, and contextual characteristics of academic library services.

Based on the synthesis of previous literature and service quality theories, this study formulated a preliminary conceptual framework consisting of seven dimensions of excellent library service: friendliness, responsiveness, service speed, communication ability, empathy, professionalism, and accessibility and user support. These dimensions were operationalized into indicators and proposed questionnaire items intended to support the development of a library service quality assessment instrument for higher education institutions. The study therefore contributes a conceptual synthesis and an initial instrument blueprint grounded in SERVQUAL theory, LibQUAL(+), and contemporary excellent service principles in academic library contexts.

Nevertheless, this study has several limitations. First, the study is conceptual in nature and does not yet include empirical validation of the proposed instrument. Second, the developed dimensions, indicators, and questionnaire items have not undergone expert review, pilot testing, or psychometric evaluation. Third, the applicability of the proposed instrument across different institutional and cultural contexts has not yet been examined. Therefore, the proposed instrument should be considered a preliminary draft that requires further refinement before practical implementation.

Future studies are recommended to continue the instrument development process through expert panel validation using content validity procedures such as CVR or CVI analysis. Subsequent research should also conduct pilot testing with library users to evaluate item clarity and relevance, followed by reliability and construct validity testing using statistical procedures such as Cronbach's alpha, exploratory factor analysis, and confirmatory factor analysis. In addition, cross-institutional studies involving different types of higher education libraries are needed to examine the broader applicability and contextual stability of the instrument.

References

- Adiputra, W., & Sari, S. (2026). The Influence of Responsiveness, Reliability, and Empathy on Public Service Satisfaction through Perception of Service Quality as an Intervening Variable at Mapilli Community Health Center. *Journal of Management and Administration Provision*. <https://doi.org/10.55885/jmap.v6i1.902>
- Ajith, J., Ramanayaka, K., & Weerasooriya, W. (2023). Assessing the effectiveness of academic library services: A review on the formulation of a feasible conceptual

- framework. *Information Development*, 41, 120 - 137. <https://doi.org/10.1177/02666669231161588>
- Akeem, O., Salome, I., & Olufunke, A. (2021). Service Quality Dimensions And Customer Satisfaction: A Study Of Selected Hotels In Osun State, NIGERIA. *International Journal of Advanced Academic Research*. <https://doi.org/10.46654/ij.24889849.s7523>
- Alam, M. (2020). Effects of service quality on satisfaction in Eastern University Library, Bangladesh. *IFLA Journal*, 47, 209 - 222. <https://doi.org/10.1177/0340035220959099>
- Alam, M. J., Wares-UI-Matin, & Begum, B. (2024). Individual differences in service quality of university libraries in Bangladesh. *IFLA journal*, 50(3), 562-573. <https://doi.org/10.1177/03400352241242112>
- Alam, M., & Mezbah-UI-Islam, M. (2020). Service quality assessment model for academic libraries. <https://doi.org/10.1108/gkmc-03-2020-0027>
- Alam, M., & Mezbah-UI-Islam, M. (2022). Impact of service quality on user satisfaction in public university libraries of Bangladesh using structural equation modeling. *Performance Measurement and Metrics*. <https://doi.org/10.1108/pmm-06-2021-0033>
- Alfatafta, M., Alsubahi, N., Alfatafta, H., Alshawabka, A., McGarry, A., Ahmad, A., Derkács, E., Varga, D., & Molics, B. (2025). Assessing service quality and its impact on patient experience and satisfaction in prosthetics and orthotics: a SERVQUAL-based cross-sectional study. *BMC Health Services Research*, 25. <https://doi.org/10.1186/s12913-025-13172-z>
- Appleton, L. (2020). Academic Libraries and Student Engagement: A Literature Review. *New Review of Academic Librarianship*, 26, 189 - 213. <https://doi.org/10.1080/13614533.2020.1784762>
- Azis, A., Ardiansah, M., Yanto, H., & Odi, M. (2024). Peran Perpustakaan Dalam Memperkaya Ilmu Pengetahuan Mahasiswa Di Perguruan Tinggi. *Jurnal Lentera Pendidikan Pusat Penelitian LPPM UM Metro*. <https://doi.org/10.24127/ilpp.v9i2.3859>
- Azwar, S. (2018). *Penyusunan skala psikologi* [Construction of psychological scales] (2nd ed.). Pustaka Pelajar.
- Barfi, K., Parbie, S., Filson, C., Teye, M., Kodua-Ntim, K., & Ayensu, E. (2023). Assessing the quality of services at an academic library. *Heliyon*, 9. <https://doi.org/10.1016/j.heliyon.2023.e22449>
- Boyce, C. (2017). Measuring Perceptual (In) Congruence between Information Service Providers and Users. *Coll. Res. Libr.*, 78, 359-381. <https://doi.org/10.5860/crl.78.3.359>
- Creswell, J. W & Creswell, J.D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.
- DeVille, S., & Sughrue, J. (2023). Linking Library Use to Student Engagement. *Journal of Library Administration*, 63, 179 - 199. <https://doi.org/10.1080/01930826.2022.2159240>
- Dharmawan, A., Rukin, & Zulharman. (2025). Pelayanan publik berbasis pelayanan prima di unit transfusi darah palang merah indonesia (PMI) kota surabaya. *Journal of Law and Administrative Science*. <https://doi.org/10.33478/jlas.v3i1.30>
- Emmanuel, B., & Liu, J. (2021). International Students Assesment of Service Quality In Academic Libraries. <https://doi.org/10.47772/ijriss.2021.5532>
- Fadhlya, D., Suprayogi, Y., & Imanudin, I. (2017). Kualitas Pelayanan Perpustakaan Di Badan Perpustakaan Dan Kearsipan Daerah Provinsi Jawa Barat. <https://doi.org/10.24198/jane.v2i1.13679>

- Fingillah, S., & Zuru, I. (2025). Library resources utilization by staff and students of Kebbi State University of Science and Technology, Aliero, Nigeria. *Journal of Library Services and Technologies*. <https://doi.org/10.47524/jlst.v7i1.46>
- Harahap, D. (2024). Peran Pustakawan di Perguruan Tinggi Sebagai Partner Riset dalam Pemenuhan Kebutuhan Informasi Pengguna. *Media Informasi*. <https://doi.org/10.22146/mi.v33i1.6350>
- Hartono, A. (2025). Peran Pustakawan dalam Meningkatkan Literasi Informasi Mahasiswa. *Abdi Pustaka: Jurnal Perpustakaan dan Kearsipan*. <https://doi.org/10.24821/jap.v5i2.14776>
- Hermanto, B. (2019). Memperkuat Peran Pustakawan Dalam Mewujudkan Layanan Perpustakaan Perguruan Tinggi Yang Prima Dan Unggul. *Jurnal Pustaka Ilmiah*. <https://doi.org/10.20961/jpi.v2i1.33166>
- Ho, C.-C., Lai, Y.-H., & Chen, M.-S. (2023). Service Quality Methods and Practices to Improve Library Administration: A Pilot Study. *Standards*, 3(2), 187-197. <https://doi.org/10.3390/standards3020015>
- Hossain, M. (2016). Determining the Key Dimensions for Evaluating Service Quality and Satisfaction in Academic Libraries. *International Information & Library Review*, 48, 176 - 189. <https://doi.org/10.1080/10572317.2016.1205350>
- Hossain, M., & Ahmed, S. (2013). Developing a service performance assessment system to improve service quality of academic libraries. *Business Information Review*, 30, 210 - 221. <https://doi.org/10.1177/0266382113512404>
- Lamichhane, B., Lama, P., Lamichhane, S., Pandey, P., & Lama, S. (2025). Service Quality Dimensions and Customer Satisfaction in Nepalese Banking Sector. *NPRC Journal of Multidisciplinary Research*. <https://doi.org/10.3126/nprcjm.v2i3.76547>
- Landrum, H., & Prybutok, V. (2004). A service quality and success model for the information service industry. *Eur. J. Oper. Res.*, 156, 628-642. [https://doi.org/10.1016/s0377-2217\(03\)00125-5](https://doi.org/10.1016/s0377-2217(03)00125-5)
- Latifah, A., & Nugraha, J. (2023). The influence of relevance and computer self-efficacy on students' behavioral intention in using the digital library. *Jurnal Inovasi dan Teknologi Pembelajaran*. <https://doi.org/10.17977/um031v10i12023p092>
- Mabini, S., Narsico, L., & Narsico, P. (2024). Service Quality, Patient Satisfaction, and Improvement Indicators. *International Journal of Multidisciplinary: Applied Business and Education Research*. <https://doi.org/10.11594/ijmaber.05.04.18>
- Maksum, F., Dwijosusilo, K., & Widyawati, W. (2026). Pengaruh Responsiveness dan Empathy terhadap Kualitas Pelayanan Publik di Kantor Kementerian Agama Kota. *Jurnal Pendidikan Dan Ilmu Sosial (JUPENDIS)*. <https://doi.org/10.54066/jupendis.v4i1.3671>
- Mamta & Kumar, V. (2023). A systematic review of library service quality studies: Models, dimensions, research populations and methods. *Journal of Librarianship and Information Science*, 56, 534 - 546. <https://doi.org/10.1177/09610006221148190>
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). SAGE Publications.
- Mukhtaruddin, M., Syukrinur, S., Idris, S., Masrizal, M., & Sulaiman, S. (2022). The Implications of Library Service Development on Students' Satisfaction at the State Islamic University in Indonesia. *Jurnal Ilmiah Peuradeun*. <https://doi.org/10.26811/peuradeun.v10i1.598>
- Mvula, D., & Muchinga, M. (2024). The use of Academic Library and Information Seeking Behavior of Students at Lusaka Apex Medical University. *Zambia Journal of Library & Information Science*. <https://doi.org/10.53974/unza.zajlis.8.2.116>

- Ndinde, S. (2024). Performance evaluation of service quality and user satisfaction in selected Zimbabwe university libraries.. <https://doi.org/10.29086/10413/23039>
- Noh, Y. (2025). A study on the evaluation of University Library Service Quality using the Kano model. *Journal of Librarianship and Information Science*. <https://doi.org/10.1177/09610006251370720>
- Nugraha, M., Jannah, R., Firlana, H. (2025). Analisis Konsep Pelayanan Prima pada Layanan Paspor di Indonesia [Analysis of the Excellent Service Concept in Passport Services in Indonesia]. *Jurnal Ilmiah Manajemen Dan Kewirausahaan*, 4(2), 635–647. <https://doi.org/10.55606/jimak.v4i2.4704>
- Oh, D. (2022). How to measure service quality, customer satisfaction and loyalty of public library users: Application of library customer satisfaction index (LCSI) lite model. *Journal of Librarianship and Information Science*, 55, 719 - 733. <https://doi.org/10.1177/09610006221101193>
- Panahi, S., Bazrafshani, A., & Mirzaie, A. (2023). Development and validation of a modified LibQUAL scale in health sciences libraries: application of Structural Equation Modeling. *Journal of the Medical Library Association: JMLA*, 111, 792 - 801. <https://doi.org/10.5195/jmla.2023.1348>
- Partap, B. (2019). A Review of Service Quality Assessment of Library and Information Centres. *Library Philosophy and Practice*, 1.
- Prastyabudi, W., & Latifah, S. (2024). Measuring Library Service Excellence: Integrating Servqual with Accreditation Standards. *Journal of Advances in Information and Industrial Technology*. <https://doi.org/10.52435/jaiit.v6i2.561>
- Rahman, I., Wahyuni, L., & Sari, R. (2023). Strategi Perpustakaan dalam Mewujudkan Layanan Prima bagi Pemustaka di Perpustakaan Universitas Potensi Utama Medan. *Jurnal Pustaka Ilmiah*. <https://doi.org/10.20961/jpi.v9i1.65029>
- Rahmatia, S., Basri, M., Ismail, I., Adi, S., Nasrullah, N., & Ahmad, A. (2025). Service quality in hospital inpatient care: SERVQUAL model approach. *Health SA Gesondheid*, 30. <https://doi.org/10.4102/hsag.v30i0.3055>
- Ramadhan, N., Setiawati, Hasanah, A., & Centia, S. (2025). The evaluation of quality of library services. *Record and Library Journal*. <https://doi.org/10.20473/rli.v11-i1.2025.163-186>
- Reconsal, F. (2026). Assessment of Library Service Quality at a Private Higher Education Institution. *Journal of Humanities and Social Sciences Studies*. <https://doi.org/10.32996/jhsss.2026.8.2.8>
- Ridwan, M., Prasetyawati, R., & Rifqi, A. (2023). Peran Intervensi Pustakawan dalam Meningkatkan Literasi Informasi : Studi Kualitatif dalam Lingkungan Akademik di Universitas Jenderal Achmad Yani Yogyakarta. *LibTech: Library and Information Science Journal*. <https://doi.org/10.18860/libtech.v4i2.24167>
- Rifngati, E. (2016). Tantangan Pustakawan Perguruan Tinggi Dalam Memberikan Layanan Prima Dengan Berbasis Teknologi Informasi [Challenges for University Librarians in Providing Excellent Service Based on Information Technology]. *Dinamika Penelitian*, 16, 268–273. <https://doi.org/10.21274/dinamika.2016.16.2.268-273>
- Ritzo, C., Rhinesmith, C., & Jiang, J. (2022). Measuring Library Broadband Networks to Address Knowledge Gaps and Data Caps. *Information Technology and Libraries*. <https://doi.org/10.6017/ital.v41i3.13775>
- Sari, R. M., Karnasih, I. G. A. ., & Fakhriza, I. (2025). Faktor-Faktor Rendahnya Kunjungan Mahasiswa Ke Perpustakaan. *LEARNING : Jurnal Inovasi Penelitian Pendidikan Dan Pembelajaran*, 5(2), 599–608. <https://doi.org/10.51878/learning.v5i2.4867>

- Sari, R., Cahyono, D., & Susbiyani, A. (2023). Menjelajahi Nirwana Akademik Analisis Keberhasilan Universitas Muhammadiyah Jawa Timur dalam Memenangkan Hati Mahasiswa Melalui Kompetensi Staff Akademik, Keandalan Layanan dan Kilau Reputasi. *BUDGETING: Journal of Business, Management and Accounting*. <https://doi.org/10.31539/budgeting.v5i1.7364>
- Sayekti, R., Aditya, M., , N., Simahate, T., , Y., & Devianty, R. (2022). An Assessment of Information Control: Understanding Library Service Quality from Users' Perspectives. *Evidence Based Library and Information Practice*. <https://doi.org/10.18438/ebliip29916>
- Scoulas, J., De Groote, S., Shotick, K., & Osorio, N. (2024). A holistic approach to understanding undergraduates: Campus engagement, library use and psychological factors. *The Journal of Academic Librarianship*. <https://doi.org/10.1016/j.acalib.2024.102936>
- Setiawan, S., Setiawan, B., Maula, F., Roni, R., Nurhaddi, R., & Atmojo, P. (2026). Understanding the Basic Concepts and Scope of Excellent Service in Professional Practice at the UNESA Global Engagement Directorate. *International Journal of Economics and Management Research*. <https://doi.org/10.55606/ijemr.v5i1.658>
- Setiono, B., & Hidayat, S. (2022). Influence of Service Quality with the Dimensions of Reliability, Responsiveness, Assurance, Empathy and Tangibles on Customer Satisfaction. *International Journal of Economics, Business and Management Research*. <https://doi.org/10.51505/ijebmr.2022.6924>
- Shoaib, M., Shamer, A., & Iqbal, S. (2025). A Systematic Review of Academic Library Spaces as Facilitators of Student Engagement in Higher Education Learning. *The Knowledge*. <https://doi.org/10.63062/tk/2k25a.41045>
- Shoaib, M., Shamsheer, A., & Iftikhar, I. (2025). Engagement of Students in Learning in Higher Education: The Role of Academic Library Spaces. *The Regional Tribune*. <https://doi.org/10.63062/trt/wr25.086>
- Shoaib, M., Shamsheer, A., & Iqbal, S. (2025). Understanding Student Engagement in Higher Education: The Contribution of Academic Library Spaces. *ProScholar Insights*. <https://doi.org/10.62997/psi.2025a-41076>
- Soria, K., Fransen, J., & Nackerud, S. (2017). Beyond Books: The Extended Academic Benefits of Library Use for First-Year College Students. *Coll. Res. Libr.*, 78, 8-22. <https://doi.org/10.5860/crl.78.1.8>
- Sugiarto, S., & Octaviana, V. (2021). Service Quality (SERVQUAL) Dimensions on Customer Satisfaction: Empirical Evidence from Bank Study. *Golden Ratio of Marketing and Applied Psychology of Business*. <https://doi.org/10.52970/grmapb.v1i2.103>
- Sugiyono. (2019). *Metode penelitian kuantitatif, kualitatif, dan R&D* [Quantitative, qualitative, and R&D research methods]. Alfabeta.
- Suhartini, Y. (2023). Analysis of The Influence of Tangibles, Empathy, Responsiveness of Service Quality on Student Parents Satisfaction. *RIGGS: Journal of Artificial Intelligence and Digital Business*. <https://doi.org/10.31004/riggs.v1i2.61>
- Suryaman, M., & Tukiran, M. (2025). The Impact of SERVQUAL Dimensions on Customer Satisfaction in Education and Training: An Economic Perspective. *International Journal of Economics Development Research (IJEDR)*. <https://doi.org/10.37385/ijedr.v6i2.7322>
- Syukrinur, S. (2023). Revitalisasi Fungsi Perpustakaan Perguruan Tinggi: Upaya Peningkatan Kualitas Layanan dan Pembelajaran. *LIBRIA*. <https://doi.org/10.22373/16813>
- T.Deepthi, , & Sekhar, D., & Sri, G. K. (2024). Comprehensive insights into service quality dimensions exploring the key factors. *International Journal of Scientific Research in Engineering and Management*, 8(2). <https://doi.org/10.55041/IJSREM28569>

- Tan, P. L., & Foo, S. (1999). Service quality assessment: A case study of a Singapore statutory board library. *Singapore Journal of Library & Information Management*, 28, 1-23.
- Taylor, R. (2024). Unveiling Customers' Perceptions: A Comprehensive Analysis Of Service Quality Dimensions. *The American Journal of Management and Economics Innovations*. <https://doi.org/10.37547/tajmei/volume06issue04-01>
- Trivedi, D., Bhatt, A., Trivedi, M., & Patel, P. (2021). Assessment of e-service quality performance of university libraries. *Digit. Libr. Perspect.*, 37, 384-400. <https://doi.org/10.1108/dlp-07-2020-0072>
- Vieira, K., & Ravello, R. (2024). PUBLICSERV: Quality assessment scale for public services. *International Journal of Consumer Studies*. <https://doi.org/10.1111/ijcs.13066>
- Wahyuni, S. (2023). Keterampilan sosial pustakawan dalam memberikan layanan prima kepada pemustaka di era Information, Communication and Technology (ICT). *Daluang: Journal of Library and Information Science*. <https://doi.org/10.21580/daluang.v3i2.2023.17983>
- Yuan, J., & Yang, N. (2023). On factors affecting users' willingness to participate in the smart services of academic library. *Journal of Librarianship and Information Science*, 56, 291 - 307. <https://doi.org/10.1177/09610006221146298>
- Yuliani, T. (2022). The Effect Of Service Quality On Student Visit Interest to The Library of Uin Mahmud Yunus Batusangkar. *JIPIS: Jurnal Ilmu Perpustakaan dan Informasi Islam*. <https://doi.org/10.31958/jipis.v1i2.7440>
- Zheng, Z., Zeng, M., Huang, W., & Sun, N. (2024). The influence of university library environment on student interactions and college students' learning engagement. *Humanities and Social Sciences Communications*, 11, 1-14. <https://doi.org/10.1057/s41599-024-02892-y>
- Zhu, X., Whitaker, E., Cho, M., & Zhang, M. (2025). Student Engagement in Academic Libraries: A Conceptual Framework. *Coll. Res. Libr.*, 86. <https://doi.org/10.5860/crl.86.2.275>
- Zygiaris, S., Hameed, Z., Alsubaie, M., & Rehman, S. (2022). Service Quality and Customer Satisfaction in the Post Pandemic World: A Study of Saudi Auto Care Industry. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.842141>