



A Systematic Literature Review Of The Servqual Model: Theoretical Developments And Research Trends In Service Quality, Satisfaction, And Loyalty

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Abstract

This study aims to examine the effect of service quality on customer satisfaction and loyalty based on the SERVQUAL model, particularly in the context of higher education and the digital service sector. The study uses a Systematic Literature Review approach based on the PRISMA method with a search of reputable articles in the Scopus database during the period 2023–2025. The identification process included screening titles, abstracts, and theme relevance, followed by an assessment of eligibility based on SERVQUAL dimensions, empirical methods, and the main focus of the research. The data extracted included research objectives, variables, sectors, methods, and key findings. The results of the discussion show that the five dimensions of SERVQUAL, namely tangibility, reliability, responsiveness, assurance, and empathy, have a positive effect on customer satisfaction. In the digital context, additional dimensions such as usability, efficiency, and learnability are increasingly relevant in improving the user experience. The analyzed studies also reveal that satisfaction acts as an important mediator in the relationship between service quality and loyalty, so that service quality not only creates positive perceptions but also encourages the formation of long-term relationships with customers. In the higher education sector, responsiveness and assurance are the main determinants of student satisfaction, while in e-commerce, aspects of trust and convenience strengthen customer loyalty. In conclusion, SERVQUAL remains relevant for measuring service quality across sectors and supports quality management strategies. However, limitations related to the subjectivity of customer perceptions indicate the need for further research through the integration of digital experience variables and switching costs to gain a deeper understanding.

Keywords: *SERVQUAL; Customer Satisfaction; Customer Loyalty.*

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INTRODUCTION

A huge client base, which is in charge of boosting sales and profits, depends heavily on the quality of the services provided (Mary et al., 2023). Quality gaps have been shown to affect customer satisfaction and perception (Skýpalová et al., 2024), making periodic evaluation necessary (Prodan & Dabija, 2023).

Service quality in higher education institutions affects student satisfaction and loyalty. Institutions that provide good services tend to attract new students and build a positive reputation (Pujol-Jover et al., 2023), while poor services reduce interest (Majid et al., 2025). Therefore, improving facilities, efficient administration, and staff professionalism are priorities.

SERVQUAL assesses service quality through five main dimensions: tangibility, reliability, responsiveness, assurance, and empathy. This model remains dominant

because it is able to measure the gap between customer expectations and perceptions (Tambunan, 2023), and is flexible for various sectors such as restaurants through DINESERV and e-commerce (Abdul Ghaffar & Indrawati, 2024).

Various studies show the relevance of SERVQUAL across sectors. In retail, a significant difference was found between customer expectations and perceptions (Mary et al., 2023). In the Lithuanian public sector, quality is influenced by age and education (Butkus et al., 2023). In banking in Nepal, reliability, responsiveness, and tangibility dominate satisfaction (Ghimire et al., 2025).

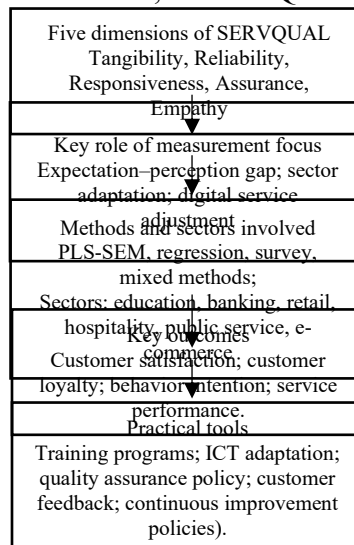
In the digital era, SERVQUAL is applied to e-commerce, mobile applications, and digital banking. Usability, efficiency, and learnability greatly influence satisfaction (Abdul Ghaffar & Indrawati, 2024). In Malaysian mobile commerce, service quality increases loyalty through satisfaction (Mohd Zariman et al., 2023). A study in Cambodia also confirms the influence of quality, trust, and convenience on digital customer loyalty (Ly, 2025).

SERVQUAL research explores the relationship between service quality, satisfaction, and loyalty. In higher education, studies assess the influence of service quality and the mediation of satisfaction. SERVQUAL is also linked to Total Quality Management (TQM) to improve institutional competitiveness (Skordoulis et al., 2024).

The research formulates two questions: the influence of service quality on satisfaction, and how service quality and satisfaction affect loyalty. Evidence shows that service quality impacts loyalty through increased customer satisfaction (Hameed et al., 2024), which helps institutions design long-term service strategies.

RESEARCH METHODOLOGY

This study uses a Systematic Literature Review approach based on the PRISMA method to identify and synthesize research related to SERVQUAL Theory in various service sectors. The search process was conducted using the Scopus database with a series of keywords such as SERVQUAL Model, Service Quality, and SERVQUAL.

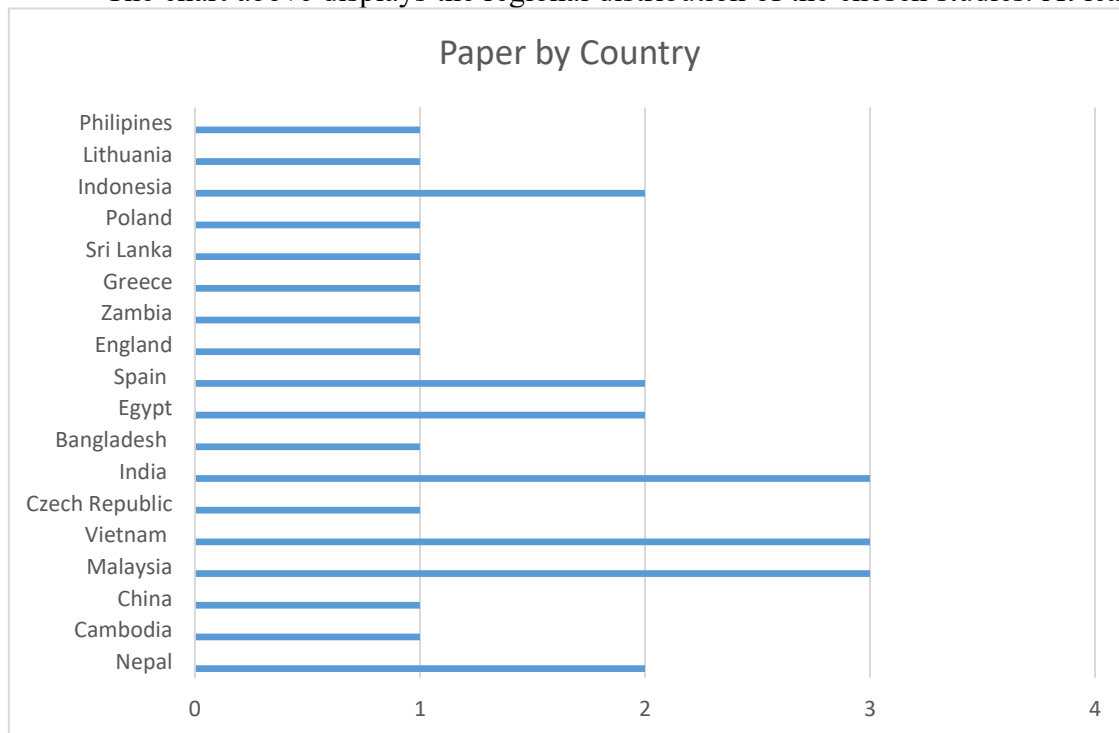


At the identification stage, a number of search filters were applied to narrow the scope of the study, namely the SERVQUAL Model (1921 articles), publication range 2023–2025 (461 articles), Business, Management & Accounting field group (148 articles), article document type (118 articles), English language (115 articles), specific keywords Service Quality/Servqual Model/Servqual (85 articles), journal source type (84

articles), and open access (31 articles). The publication year range was focused on 2023–2025 to ensure the latest studies. All articles found were managed using a reference manager to eliminate duplication, then filtered based on title and abstract to ensure topic relevance to the SERVQUAL study focus. The eligibility assessment stage was conducted through a full reading of the selected articles, considering the suitability of the inclusion criteria, namely the coverage of SERVQUAL or service quality dimensions; service sectors such as education, health, retail, banking, tourism, and digital commerce; the use of clear empirical methods; and measurement results related to customer satisfaction and loyalty. Exclusion criteria included non-scientific articles, editorials, purely conceptual positions, and studies that did not explain the operationalization of SERVQUAL. The assessment of article quality continued by considering clarity of methodology, relevance of variables, validity of measurements, and relevance of research results. Articles that passed the selection then went through a data extraction process that included authors, year, research objectives, variables, methods, sectors, and main findings. The final stage, thematic synthesis, was used to identify common patterns, contributions to SERVQUAL theory, dominant sectors, research methods used, and trends in the relationship between SERVQUAL and satisfaction and loyalty, thereby drawing conclusions about research trends, research gaps, and future research directions related to SERVQUAL.

RESULTS AND DISCUSSION

The chart above displays the regional distribution of the chosen studies. At least



28 countries nations were represented by the 31 primary studies included in this review. The largest number of research (N = 3) came from India, Vietnam, and Malaysia. Spain, Egypt, and Nepal made the second-highest contributions (two). Followed by Philippines, Lithuania, Poland, Sri Lanka, Greece, Zambia, England, Bangladesh, Czech Republic, China, and Cambodia each contributing one. Whereas the other three papers do not explicitly mention the country where the research was conducted. This information

indicates a global academic interest in employing the SERVQUAL Model to evaluate service quality across various platforms.

No	Theory	Main Focus	Relevance to SERVQUAL
1	Expectation–Confirmation Theory (ECT)	Satisfaction based on the comparison of expectations with performance	SERVQUAL also compares expectations and perceptions, making it suitable for researching satisfaction
2	TAM	Explains how perceived usefulness and perceived ease of use influence users’ acceptance and adoption of a system.	TAM relates to SERVQUAL because service quality affects customers’ perceptions of usefulness and ease of use
3	Service Performance Model (SERVPERF)	Evaluation of quality based on actual performance	This theory is a simplification of SERVQUAL and is relevant as a comparison
4	Kano Model	Grouping of customer needs (basic, performance, excitement)	Can map SERVQUAL dimensions into need categories, thereby enriching the analysis
5	Commitment–Trust Theory	Focuses on building long-term relationships through customer trust and commitment	SERVQUAL improves perceived service quality, which increases trust and subsequently leads to stronger commitment and loyalty

Five theories that can be compared with SERVQUAL include Expectation–Confirmation Theory (ECT), which assesses satisfaction by comparing expectations and actual performance, thus aligning with the gap concept in SERVQUAL; The Technology Acceptance Model (TAM), which explains that perceived usefulness and perceived ease of use shape users’ acceptance of a system, so service quality measured through SERVQUAL can be linked to how customers perceive the usefulness and ease of interacting with a service platform; The Service Performance Model (SERVPERF), which focuses on measuring quality based on actual performance without considering expectations, thus serving as a comparison for SERVQUAL's effectiveness; The Kano Model, which categorizes customer needs into basic, performance, and exciting, thereby helping to classify the dimensions of SERVQUAL to understand service improvement priorities; and The Commitment–Trust Theory, which explains that trust and commitment are the key determinants of long-term relationship intentions, so that service quality measured through SERVQUAL can be linked to the development of customer trust and commitment, ultimately leading to loyalty and continued engagement.

Based on the SERVQUAL research mapping, most studies tend to rely on quantitative approaches that utilize structured questionnaires to capture customer perceptions and measure service quality gaps. Various analytical techniques—such as regression, SEM/PLS-SEM, and MCDM methods—are commonly applied to examine the relationships between service quality dimensions, customer satisfaction, and other outcome variables, as well as to prioritize service attributes in different sectors. Although still limited, mixed methods, content analysis, and NLP or deep learning are also used in

SERVQUAL studies. In general, these findings reflect that SERVQUAL is more widely applied in applied research that prioritizes quantitative analysis to assess customer experience and its impact on business outcomes.

The results of the study show that service quality, represented by the dimensions of reliability, assurance, responsiveness, empathy, and tangibles, remains the foundation of customer assessment across service sectors. The application of these dimensions has been proven to improve service experience, especially when companies are able to minimize the gap between customer expectations and perceptions (Parasuraman et al., 1985). In the context of digital systems and e-commerce, the expansion of SERVQUAL includes the aspects of usability, efficiency, and learnability to ensure ease of user interaction with application-based systems, as seen in research on Tokopedia, which confirms that usability and efficiency are the main determinants of user satisfaction (Abdul Ghaffar & Indrawati, 2024). These findings expand the scope of SERVQUAL to the realm of digital services, where ease of navigation and learnability play an important role in shaping satisfaction.

In general, findings in higher education indicate that service quality has a positive effect on student satisfaction, while satisfaction is then correlated with student loyalty to the institution. In line with this, SERVQUAL supports the development of Total Quality Management (TQM) so that service quality can be managed systematically and continuously (Skýpalová et al., 2024). Responsiveness and assurance are the dimensions that most often influence student satisfaction, confirming that the institution's ability to provide fast and reliable services plays a significant role in fostering academic loyalty. Therefore, strengthening academic and administrative services is an important strategy for improving institutional sustainability in global competition.

Findings in the mobile commerce sector in Malaysia show that assurance, personalization, responsiveness, and information quality in applications are the most significant indicators influencing user satisfaction; this satisfaction acts as a mediator that strengthens the relationship between service quality and loyalty (Mohd Zariman et al., 2023). This mediation model states that service quality does not necessarily create loyalty, but must be followed by a positive experience that fosters a feeling of satisfaction in customers. This emphasizes the importance of digital feature reliability and service flexibility in creating a memorable service experience.

In the context of digital services in Cambodia, trust, convenience, and service quality are the most significant determinants of customer loyalty. The study confirms that customers are more likely to show purchase intent if they feel that the digital platform they use is secure, easily accessible, and provides consistent service (Ly, 2025). Therefore, digital companies are required to invest in adaptive security systems and maintain transparency of communication in the service process.

Regarding the influence of service quality in the five dimensions of SERVQUAL on customer satisfaction, the study results show that reliability, responsiveness, and assurance are the most stable dimensions that positively influence customer satisfaction (Ghimire et al., 2025). The impression of reliability, responsiveness, and security in services can create the perception that service providers have high capabilities, thereby encouraging consumers to feel satisfied and trust the company. Thus, companies need to improve core service procedures such as response speed and clarity of information.

The influence of service quality and customer satisfaction on customer loyalty. The study found that satisfaction consistently mediates the relationship between service quality and customer loyalty (Hameed et al., 2024). Satisfied customers tend to establish

long-term relationships with service providers, exhibit repeat purchase behavior, and provide positive recommendations. This shows that service quality not only impacts satisfaction but is also a strategic investment in building sustainable business competitiveness.

In a comparison of SERVQUAL and SERVPERF in Vietnam, it was found that SERVPERF was considered more effective in providing operational recommendations related to service improvement because it focused on perceptions of actual performance without comparing expectations (Nguyen et al., 2025). Therefore, organizations can choose the most appropriate approach depending on their strategic needs, whether they want to evaluate current performance or map customer expectation gaps.

In practical terms, this study emphasizes the need for educational institutions and the e-commerce sector to develop a customer-based service culture through TQM, physical facility improvements, and digital system optimization. Institutions that are able to translate service quality into meaningful customer experiences will gain a competitive advantage and be able to increase customer loyalty in a sustainable manner (Ayvaz-Çavdaroglu et al., 2024). Strengthening the capabilities of human resources, service technology, and communication are key strategies in the implementation of modern SERVQUAL.

The main limitation in SERVQUAL studies is their reliance on subjective customer perceptions and the dynamics of customer expectations, which can change according to time and market trends (Chandra et al., 2020). Meanwhile, digital research tends to use cross-sectional designs, which do not reveal changes in customer behavior in the long term (Mohd Zariman et al., 2023). In addition, some studies have not integrated cultural characteristics, so cross-country generalization of findings needs to be done carefully. Further research can add the variables of digital experience, switching costs, and trust as moderators to deepen the understanding of the relationship between service quality and customer loyalty.

CONCLUSION

Service quality is a key element in improving customer satisfaction and loyalty in various sectors, including higher education, digital services, and banking. Through the five main dimensions of SERVQUAL, namely tangibility, reliability, responsiveness, assurance, and empathy, organizations can identify gaps between customer expectations and perceptions to design more appropriate service improvement strategies. The adaptation of SERVQUAL to the digital context through E-SERVQUAL emphasizes the importance of usability, efficiency, and learnability in creating a superior user experience. The study shows that service quality directly affects satisfaction and indirectly increases loyalty through the mediating role of satisfaction, making the SERVQUAL model effective in strengthening competitiveness. Dominant research methods such as surveys, regression, and SEM reflect a focus on empirical measurement of relationships between variables. Despite its broad relevance, limitations such as the subjectivity of customer perceptions and cultural dynamics underscore the need for more in-depth studies incorporating variables such as digital experience, switching costs, and trust to produce adaptive and sustainable service improvement strategies.

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