

Determinants of Student Loyalty in Higher Education Through a Systematic Review

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ABSTRACT

Student loyalty has become an important issue in higher education. However, the existing literature remains fragmented, with discussions spread across service quality, digital service quality, institutional image, and social responsibility. **This review examines** how these different streams of research come together in explaining student loyalty. A total of 47 English-language empirical journal articles published between 2000 and 2025 were selected for analysis. Scopus was used as the primary database, and the review followed the PRISMA approach. **The findings indicate** that, in face-to-face settings, service quality dimensions such as responsiveness, reliability, and empathy play an important role in shaping student satisfaction and trust, which then support loyalty. In digital settings, however, loyalty is influenced not only by responsiveness, but also by ease of use, system availability, privacy, and security. **The review further** shows that institutional image, reputation, and CSR/USR-related initiatives can strengthen loyalty by reinforcing students' positive evaluations of and attachment to their institutions. At the same time, the reviewed studies vary considerably in terms of context, ownership type, delivery mode, and measurement approach. This variation helps explain why the reported loyalty pathways are not always consistent. Overall, this review brings together several strands of the student loyalty literature and highlights the importance of more context-sensitive and methodologically robust research in the future.

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1. INTRODUCTION

Research in higher education has increasingly emphasized student loyalty over the past two decades, particularly due to the globalization of education and growing competition among private, public, and international institutions [1, 2]. Universities therefore need to strengthen student loyalty to maintain long-term institutional sustainability and support. This shift also reflects the changing role of universities from educational institutions to service-oriented organizations that seek to establish and maintain long-term relationships with

students. Student loyalty is commonly reflected in positive perceptions, recommendation intentions, intentions to continue studying, and longer-term attachment to the institution. Previous research indicates that loyalty is closely associated with relationship quality, particularly through satisfaction, trust, emotional attachment, and a sense of belonging.

Service quality, satisfaction, trust, and institutional reputation are among the major factors associated with student loyalty. Higher service quality generally improves student satisfaction, which subsequently contributes to stronger loyalty [3, 4]. Trust and institutional reputation further strengthen these relationships, suggesting that loyalty is shaped not only by students' satisfaction with individual services but also by their broader perceptions of institutional value and credibility [5]. These factors have therefore become increasingly important for Higher Education Institutions (HEIs) seeking to maintain student loyalty in competitive environments [6–8].

The transformation of higher education has also expanded student experiences from conventional face-to-face services to digital environments. In online and hybrid settings, e-service quality influences student loyalty through mechanisms such as e-satisfaction and electronic word of mouth. Responsiveness, certainty, and privacy are among the factors that shape students' perceptions of online service experiences and subsequently influence loyalty [9, 10]. Nevertheless, conventional offline service quality remains important, particularly where interpersonal interactions and direct student support influence satisfaction and loyalty [11, 12]. Thus, both traditional and digital service quality should be considered when examining the determinants of student loyalty in contemporary higher education.

Institutional image, reputation, and social responsibility also contribute to the development of student loyalty. Corporate Social Responsibility (CSR) and University Social Responsibility (USR) can strengthen institutional reputation and positively influence student perceptions and loyalty. However, their effects may vary according to cultural, social, and economic contexts [13, 14]. CSR and USR can therefore function as mechanisms through which institutional practices improve perceptions of the university and subsequently strengthen student loyalty [15–17].

Despite the growing body of research on service quality, institutional image, CSR/USR, satisfaction, and trust, these constructs have often been examined separately, resulting in fragmented evidence regarding how they jointly contribute to student loyalty. A comprehensive understanding of these relationships remains limited. This issue is relevant to Sustainable Development Goal (SDGs) 4, Quality Education, as improving service quality, student satisfaction, and engagement can support more effective and student-centered higher education. It is also related to SDG 9, Industry, Innovation and Infrastructure, particularly through the growing importance of digital services and technological infrastructure in supporting online and hybrid learning experiences.

Accordingly, this review systematically synthesizes evidence from 47 empirical studies published between 2000 and 2025, considering differences in institutional ownership, delivery modes, and geographical contexts. The review examines how offline service quality, e-service quality, satisfaction, trust, institutional image, reputation, and CSR/USR contribute to student loyalty. By integrating these dimensions, this review provides a more comprehensive understanding of the determinants and mechanisms underlying student loyalty in higher education while highlighting their relevance to the broader development of quality, innovative, and sustainable higher education.

2. LITERATURE REVIEW

2.1. Service quality in HEIs

SERVQUAL and HEDPERF are widely used to assess service quality in higher education. SERVQUAL evaluates students' expectations and perceptions across tangibility, reliability, responsiveness, assurance, and empathy, although its suitability for higher education has been questioned because it was originally developed for commercial services [18, 19]. HEDPERF, in contrast, focuses on academic and non-academic services, reputation, accessibility, and program-related factors, making it more specific to higher education [18, 20].

Both approaches indicate that service quality, particularly empathy, responsiveness, and assurance, positively influences student satisfaction and trust [21]. These factors contribute to satisfaction and trust, which subsequently strengthen student loyalty and engagement [22, 23]. Evidence from higher education also shows that service quality influences satisfaction and loyalty, with satisfaction emerging as an important predictor of student loyalty [24, 25].

2.2. E-service Quality & IS perspectives

The DeLone–McLean Information Systems (IS) Success Model assesses e-learning through system quality, information quality, and service quality, while efficient, available, secure, and privacy-protected digital services, particularly usability, security, privacy, and responsiveness, enhance student satisfaction, trust, perceived service quality, and ultimately student loyalty.

2.3. Institutional image, reputation, and CSR/USR

Institutional reputation is important in higher education branding because it reflects how stakeholders evaluate an institution based on its past performance and future expectations [26, 27]. In universities, reputation is shaped by how students, faculty, alumni, and the public perceive the institution relative to its competitors [28, 29].

CSR, particularly USR, can strengthen institutional perceptions and student loyalty. USR activities can improve student satisfaction and trust, while social, environmental, and community initiatives can enhance institutional reputation and strengthen student and alumni loyalty [30, 31].

2.4. Satisfaction, trust, loyalty

Student loyalty in higher education can be distinguished into attitudinal and behavioral loyalty, reflecting psychological commitment and repeated patronage [8, 32]. Attitudinal loyalty reflects students' emotional commitment, preference, and willingness to recommend the institution, while behavioral loyalty involves continued enrollment, re-enrollment intentions, financial support, and participation in institutional activities. Thus, student loyalty can be understood as both an emotional connection and behavioral commitment to the institution.

Expectation confirmation theory explains how satisfaction develops from the comparison between prior expectations and actual performance. In higher education, service quality and relationship quality can link satisfaction and trust to student loyalty. The Relationship Quality based Student Loyalty (RQSL) model further emphasizes the roles of satisfaction and trust in shaping student loyalty through students' perceptions of service quality. Recent research extends this perspective by linking satisfaction and institutional trust more directly to student loyalty.

3. RESEARCH METHODOLOGY

In this review, the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) protocol was used to structure the identification, screening, and selection of studies. The PRISMA flow diagram (Figure 1) summarises the number of records retrieved, excluded, and retained, ensuring a transparent, rigorous, and reproducible review process.

3.1. Search strategy

Empirical studies were identified through a structured search in Scopus, using keywords related to student loyalty and higher education, including “student loyalty,” “loyal students,” “higher education,” “university,” “college,” “private university,” and “private higher education.” The search combined these terms to identify empirical studies focusing on student loyalty, particularly in private HEIs, with an example search string of TITLE-ABS-KEY (“student loyalty” AND “private higher education”).

The search covered English-language journal articles published between 2000 and 2025 and was completed on 30 August 2025. Only journal articles were included, while conference papers, book chapters, editorials, reviews, and notes were excluded through the document-type filter to maintain consistency, credibility, and replicability.

3.2. Inclusion and Exclusion Criteria

A set of inclusion and exclusion criteria was used to determine which studies would be considered in the synthesis of student loyalty research in HEIs. The review included studies that were empirical in nature, discussed student or alumni loyalty in higher education, were conducted in universities, colleges, or similar institutions, and were published in peer-reviewed journals from 2000 to 2025.

Studies were excluded if published in languages other than English, did not contain empirical data, or were conceptual, theoretical, or opinion papers. Research was also excluded when it did not directly address loyalty or related issues such as satisfaction, trust, commitment, retention, or advocacy in higher education. In addition, studies on primary or secondary education were excluded from the review. These criteria were applied

to keep the review centred on evidence that was directly relevant to the topic and adequate in methodological quality for examining loyalty in the higher education sector.

3.3. Study selection and PRISMA Flow

The PRISMA approach was applied to guide the study selection process. A search of the Scopus database with the predefined Boolean query produced 75 records. At this stage, no records had to be removed, since no duplicates were found and no items were excluded either by automation tools or for other reasons. This meant that all 75 records were taken forward for screening.

Further exclusions were made during the eligibility review, with 10 records removed because of document type, 8 because their subject areas were outside the focus of the review, and another 10 following manual assessment. No studies were excluded based on publication year or language. After the complete selection process, 47 studies remained for the final review, with the identification, screening, and selection procedures presented in the PRISMA flow diagram (Figure 1).

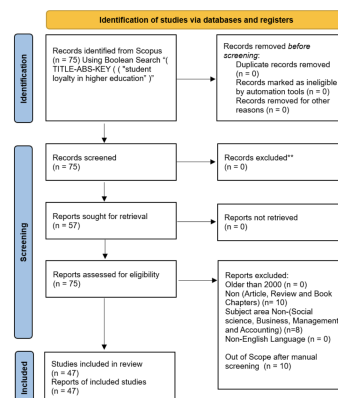


Figure 1. The PRISMA flow diagram detailing the screening and selection process of literature

3.4. Data extraction

We developed a structured data extraction form to ensure consistency across the 47 included studies. For each article, we recorded the following information: bibliographic details (author, year, journal);

- Country and type of institution (public, private, or mixed);
- Together with research design and sample characteristics (sample size, student level, modality such as on-campus, online, or blended),
- In addition to key constructs and scales used (e.g., SERVQUAL, HEdPERF, e-service quality, institutional image/CSR/USR, satisfaction, trust, engagement, loyalty),
- Analytical methods (e.g., regression, SEM, PLS-SEM); and
- In addition, the main relationships tested in each study were noted, encompassing antecedents, mediators, moderators, and loyalty outcomes.

This information forms the basis for the summary tables presented in the Results section (e.g., Table 1 for offline service quality pathways, and subsequent tables for e-service quality, institutional image/CSR, and measurement heterogeneity).

3.5. Thematic synthesis

Thematic synthesis was used to organise and interpret the findings, with all 47 studies read in full and coded according to the type of service quality examined, including offline, e-service, and hybrid service quality, the role of institutional image, CSR, and USR, and how student loyalty was modelled through direct effects, mediated pathways, or moderated relationships; through iterative comparison, conceptually similar studies were grouped into four overarching themes, beginning with the offline service quality → satisfaction/trust → loyalty pathway.

- E-service quality and digital touchpoints;
- Institutional image, CSR/USR, and reputational pathways to loyalty;
- Finally, the fourth theme considered contextual and measurement heterogeneity in student loyalty research.

Within each theme, contexts, scales, mediating mechanisms (processes through which an effect is transmitted), and methodological choices were compared to identify convergent and divergent patterns. These thematic findings provide the structure for the Results and Discussion sections.

4. RESULTS AND DISCUSSION

All 47 studies identified through the PRISMA procedure were grouped into four themes, covering offline service quality and loyalty pathways, e-service quality and digital touchpoints, institutional image, reputation, brand equity, and CSR/USR, as well as contextual and measurement heterogeneity. These themes are supported by four summary tables presenting the country, institutional type, modality, focal constructs, research methods, and key relationships.

4.1. Theme 1. Offline Service Quality → Satisfaction/Trust → Loyalty

Evidence supports both the SERVQUAL and HEDPERF models as valid predictors of student satisfaction and loyalty within HEIs. Specifically, SERVQUAL dimensions such as reliability, responsiveness, assurance, empathy, and tangibles, have proven instrumental in enhancing student satisfaction, which subsequently fosters loyalty. Studies indicate that effective implementation of the SERVQUAL model positively influences students' overall satisfaction, leading to stronger loyalty towards their institutions [33–35].

Research indicates that perceived service quality and institutional image are key factors influencing student trust and loyalty, with higher service quality associated with stronger student commitment and retention [3, 36]. Student trust also serves as an important intermediary between satisfaction and loyalty [37]. These findings highlight the role of service quality and institutional image in strengthening trust, commitment, and ultimately student loyalty.

Public and private HEIs show different pathways between service quality and student loyalty. Private HEIs often emphasize personalized service and customer experience, resulting in stronger effects on satisfaction and loyalty, while public HEIs may rely more on institutional reputation and perceived value [37]. Table 1 synthesizes key studies on offline service quality pathways, including their contexts, scales, and mediating mechanisms.

Table 1. Offline Service Quality Pathways

Study (Author–Year)	Country/Owner ship	Modality	Sample & Method	Scale & Dimensions used	Key Paths & Effect Sizes*	Mediators/ Moderators	Notes/ Limitations
[24]	Northern Cyprus / Private	On-campus / Unspecified	Survey (sample size 448)	SERVQUAL	SQ → SAT → LOY (all positive; exact effect sizes)	SAT (med)	DOI: 10.3390/su17156832; cross-sectional; single-country study.
[38]	Vietnam / Private HEI	Face-to-face	University students; quantitative survey	Scale (service-quality antecedents)	Antecedents (incl. SQ) → LOY (significant; effect sizes)	SAT (med)	Single private university; limited generalizability
[33]	Bangladesh / Private	On-campus	Survey; quantitative (sample size 229)	SERVQUAL (tangibles, reliability, responsiveness, assurance, empathy)	SQ → SAT, SQ → LOY (positive, significant; effect sizes)	SQ (med)	DOI: 10.3390/higheredu2010013 Focuses on SQ and SAT only; loyalty (LOY) not included in the model.

[34]	Pakistan / Public Universities	Face-to-face	600 students; convenience sampling	Service Quality: Interaction Quality, Outcome Quality, Physical Environment Quality	SQ → LOY (positive & significant)	SAT, commitment (med)	Public universities in Pakistan; convenience sampling
[35]	Peru / Private	On-campus / Blended	Survey; SEM (sample size 655)	HEdPERF-type academic & non-academic SQ	SQ → SAT (strong); SAT → LOY; IMG → LOY; SQ → LOY mainly via SAT/IMG	SAT, IMG (med)	Doi: 10.3389/feduc.2024.1365219 One private university; convenience sampling; cross-sectional.
[3]	Vietnam / Public University	On-campus	350 students; questionnaire, CFA & regression	SERVQUAL-based SQ dimensions	SQ → LOY (significant)	SAT (full med between SQ and LOY)	Limited to one public university; limited generalizability
[39]	Bulgaria / Dual VET Schools	Work-based learning	507 students; questionnaire & PLS-SEM	Brand associations, brand relevance, brand image, dVET image, service quality, satisfaction	Satisfaction → WOM (strongest); Service Quality → Loyalty & WOM	Student Satisfaction mediates SQ → Loyalty & WOM	9 vocational schools in Plovdiv; limited to Bulgarian dVET context
[37]	Singapore / Higher Learning Institutions	Face-to-face	400 students; quantitative survey & regression	Institutional Image: Social, Economic, Environmental Image, Perceived Educational Quality	Institutional Image → Satisfaction & Loyalty (positive, significant); Educational Quality → Institutional Image ($\beta=0.40$)	None	Students from NUS, NTU, and SUTD; Singapore context

Abbreviations and Symbols (Table 1)

- SQ: Service Quality
- SAT: Satisfaction
- LOY: Loyalty
- TRU: Trust
- IMG: Institutional Image / Reputation
- med: Mediator present
- Moderator(s) present: Indicates study tested for moderation effects
- NR: Not Reported
- Source: Scopus data base

The table shows that SERVQUAL and HEdPERF are associated with satisfaction and loyalty, although their effectiveness varies across ownership types and contexts. Structural Equation Modeling (SEM), Partial Least Squares (PLS), and regression analysis are commonly used to examine service quality loyalty relationships, with SEM being particularly suitable for testing complex relationships [37]. PLS is often applied in exploratory studies, especially in private higher education, while regression analysis is used to examine basic

relationships between service quality and student loyalty [34]. However, the dominance of cross-sectional SEM and PLS studies limits causal inference and highlights the need for more longitudinal research.

4.2. Theme 2. E-Service Quality & Digital Touchpoints

Dimensions of e-service quality influencing student loyalty in online and blended higher education include efficiency, fulfillment, system availability, and privacy. These dimensions can enhance e-satisfaction, trust, and student loyalty, with privacy being particularly important in shaping trust in digital learning platforms [40, 41]. All abbreviations, including UX and eWOM, are defined in the table notes, while “NR” indicates information not reported in the original study.

Table 2. E-Service Quality & Digital Touchpoints

Study	Digital Context	E-Service Scale	UX / Privacy Features	Outcomes	Paths / Effects	Mediators / Moderators	Method & Sample
[36]	Social media / eWOM; e-marketing / digital campaigns for HEIs	System / information / service quality (e-SQ adapted to social media)	Usability of platforms; responsiveness to online queries; trust / security signals in digital content	Satisfaction; loyalty; recommendation / intention to recommend; eWOM	Brand equity → loyalty; social engagement / eWOM → loyalty; higher e-service quality strengthens these effects through better UX	Satisfaction (med)	PLS-SEM; student survey (sample size 201)
[42]	Social media / eWOM & university online presence (Ecuadorian private universities)	System / information / service quality	Trust signals; perceived transparency and reliability of official accounts	Satisfaction; loyalty; advocacy	Institutional image / reputation → loyalty; brand equity → LOY; e-service quality supports image and brand formation	Reputation image (med)	SEM; student survey (sample size 211)
[17]	Digital communication of USR and institutional image (social media / online channels)	Perceived service e-service quality embedded in USR communication	Trust signals; perceived ethical conduct; data / privacy concern	Loyalty; intention to continue recommend	USR → SQ → university image → LOY; image has stronger effects than service quality	University image (med); service quality (partial med)	SEM; students in Indonesian HEIs (sample size 109)
[40]	Open and Distance Learning (ODL) / online higher education	Service quality; e-service quality	Service quality of educational services; quality of online services	Student loyalty; intention to remain loyal to university	Service quality → university image → loyalty; e-service quality → university image → LOY	University image (med)	Conceptual framework; literature-based; no empirical sample
[43]	Blended e-learning / higher education in Zimbabwe	E-learning service quality; system quality, information quality, service quality	Easy access; navigation; availability; information quality; user flexibility	Student satisfaction; student loyalty	System quality → SAT; Information Quality → SAT; SQ → SAT; SAT → LOY	Student satisfaction (med)	SEM; stratified random sampling; university students (321 valid responses)

The table 2 illustrates the central role of digital platforms in shaping student loyalty. Evidence following the COVID-19 pandemic particularly highlights privacy, security, and system reliability as important

dimensions of e-service quality, reflecting the growing importance of digital trust in student–institution relationships.

Privacy and security can substantially influence student trust and satisfaction. A secure digital environment strengthens students' confidence in the institution and improves their online educational experience, while perceived security also shapes service quality evaluations and student loyalty [17]. Therefore, institutions that prioritize digital security are more likely to strengthen student trust, satisfaction, and loyalty.

Learning Management Systems (LMS), mobile applications, and digital portals also influence perceptions of e-service quality by improving communication, accessibility, and user experience. These platforms enable students to access learning materials and administrative services efficiently, supporting satisfaction and trust that contribute to student loyalty [40].

The COVID-19 pandemic further emphasized the importance of digital service quality as HEIs rapidly shifted toward online learning. System availability, privacy, security, and response time became increasingly important for maintaining student trust and loyalty [17]. Institutions that adapted and improved their digital services were better able to maintain student engagement and strengthen loyalty after the crisis [33].

4.3. Theme 3. Institutional Image, Reputation, Brand Equity, and CSR/USR

Institutional image plays an important role in shaping student loyalty through satisfaction and trust. A positive institutional image can enhance students' satisfaction and perceptions of quality and reliability, thereby strengthening trust and loyalty [17]. Evidence from Ecuadorian private universities further shows that brand awareness, brand image, perceived quality, and loyalty are closely related to higher education brand equity [42].

CSR and USR can also strengthen institutional reputation, student engagement, and loyalty across different cultural contexts. Effective CSR and USR practices can enhance student identification and brand loyalty, while their effects may vary according to local cultural and societal expectations.

Table 3 below compiles findings on institutional image, reputation, brand equity, and CSR/USR pathways. To enhance clarity, all abbreviations are defined in the notes, and “NR” entries are explicitly noted as “not reported in the original study.”

Table 3. Institutional Image / Brand / CSR–USR Pathways

Study	Image / Reputation Constructs	CSR / USR Type	Brand Equity Elements	Mediated Links	Loyalty Outcomes	Context (country / ownership)	Method & Sample
[44]	Institutional image	Higher education service quality	Teacher profile; curriculum; research activities; economic value; facilities; management policies	Service quality → institutional image → student satisfaction	Student satisfaction	Higher education; Bangladesh	SEM; online survey; 302 valid responses
[35]	Institutional image; perceived quality of academic and non-academic services	NR	Perceived quality; institutional image linked to brand equity	Service quality Satisfaction → Image Satisfaction & Loyalty	Satisfaction; loyalty; advocacy	Peru; private university	SEM; student survey (n = 655)
[42]	University brand image and reputation	NR	Brand awareness; brand image; perceived quality; brand loyalty	Brand awareness / image / perceived quality → Brand equity → Loyalty	Brand equity; student loyalty / advocacy	Ecuador; private universities	PLS-SEM; student survey (n = 211)

[45]	Institutional reputation and emotional environment	CSR initiatives communicating social and environmental responsibility	Reputation as a brand-equity driver	CSR → Reputation → Engagement / Loyalty	Student loyalty; advocacy; identification	Iran; private HEIs	PLS-SEM; survey of university students ($n = 384$)
[17]	University image / reputation	USR programmes / (community engagement, ethical practices)	Image reputation part of brand equity	USR / Service quality → Image → Satisfaction → Loyalty	Student loyalty; intention to continue	Indonesia; HEIs (mixed ownership)	SEM; student survey ($n = 109$)

The table demonstrates that institutional image, CSR, and USR consistently strengthen student loyalty, often through satisfaction and trust, with brand equity serving as an important mediating mechanism. Brand equity models highlight awareness, associations, perceived quality, and loyalty as key dimensions through which institutional image can enhance student loyalty. University image and perceived quality are also associated with student satisfaction and loyalty, while branding strategies can strengthen awareness and favorable associations [6, 46]. Evidence from Ecuadorian private universities further indicates that brand awareness, brand image, perceived quality, and brand loyalty jointly explain approximately 70% of brand equity [42, 47].

Institutional reputation also influences student loyalty differently across contexts. In emerging markets such as Iran and Indonesia, reputation can influence loyalty through perceived service quality and emotional environment, while developed markets tend to emphasize structural quality and service delivery. These differences suggest that the effectiveness of institutional branding and reputation strategies depends on cultural and contextual factors [33, 48].

4.4. Theme 4. Context & Measurement Heterogeneity

Contextual factors such as ownership, modality, and region can influence the relationship between service quality and student loyalty in HEIs. Ownership affects governance and resource allocation, with private institutions often reporting stronger service quality outcomes under competitive pressures [3, 49]. Modality also shapes service quality perceptions, particularly in online settings where higher e-service quality is expected to support student satisfaction and loyalty. Regional differences further influence these relationships, as cultural norms and social responsibility expectations may shape students' perceptions of service quality and loyalty [17, 33].

Measurement approaches also produce different assessments of service quality. SERVQUAL emphasizes gaps between expectations and perceptions, HEDPERF focuses on higher education-specific performance dimensions, while E-S-QUAL emphasizes electronic service attributes such as system availability and privacy [37]. Consequently, differences in measurement models can produce varying evaluations of service quality and loyalty outcomes, highlighting the importance of selecting appropriate measures for higher education contexts [34].

Table 4 below compiles studies addressing contextual factors and measurement heterogeneity. To enhance transparency, all "NR" entries are clarified as "not reported in the original study," and additional methodological notes indicate that missing details will be verified during full-text review.

Table 4. Context & Measurement Heterogeneity

Study	Region / Market maturity	Ownership / Modality	Scale used	Reported moderator (s) & direction	Effect-size notes	Robustness / sensitivity	Methodological notes
[38]	Vietnam; emerging market	Private higher education; on-campus	SERVQUAL (tangibles, reliability, responsiveness, assurance, empathy)	Moderator NR (not reported)	Strong SQ → satisfaction effects; empathy & assurance strongest; reliability strongest for loyalty	No formal robustness tests reported	Cross-sectional survey; SEM; higher-education students

[33]	Bangladesh; emerging Asian market	Private universities; on-campus	SERVQUAL-based (tangibles, reliability, responsiveness, assurance, empathy)	Moderator NR (not reported)	Strong SQ → satisfaction effects; loyalty not modelled directly	No formal robustness tests reported	Cross-sectional survey; basic SEM / regression
[34]	Pakistan; emerging market	Public sector universities; on-campus	Service Environment Hierarchical Multi-Level: interaction quality, outcome quality, physical environment quality	Student satisfaction (mediator); full mediation for brand image & service quality, partial mediation for brand strength	SQ → satisfaction ($\beta=0.768$); satisfaction → loyalty ($\beta=0.809$); SQ → loyalty significant	CMV = 33.585%; RMSEA = 0.055; CFI = 0.721	Cross-sectional survey; convenience sampling; SEM; 568 respondents
[37]	Singapore; developed Asian market	Public universities; on-campus	5-item Likert scale; social, economic, environmental image, perceived educational quality	No moderator reported	Educational quality → institutional image ($\beta=0.40$); institutional image → satisfaction & loyalty ($\beta=0.46$)	No formal robustness tests reported	Quantitative; structured survey; 400 students; regression and linear SEM; SPSS
[35]	Peru; emerging Latin-American market	Private university; blended / on-campus	HEdPERF-type academic and / non-academic quality scale	No moderator; satisfaction and image mediate effects	Service quality → satisfaction (strong); satisfaction → loyalty; satisfaction and image; image also links to loyalty	Cross-sectional; robustness beyond fit indices	SEM; single-institution student survey
[45]	Iran; emerging market	Private HEIs; on-campus	Reputation / image and CSR-related constructs; service quality measured with SERVQUAL-type items	CSR → reputation → loyalty (indirect effect stronger than direct CSR → loyalty)	Reputation has substantial effect on loyalty and advocacy; SQ effects smaller once reputation included	No detailed sensitivity tests reported	PLS-SEM; cross-sectional survey in private universities
[17]	Indonesia; emerging market	Mixed ownership; primarily on-campus with digital communication	Service quality scale combining offline and e-service elements; image / USR scales	USR → service quality / image → satisfaction / loyalty; image shows stronger path to loyalty	Institutional image and USR both positively associated with satisfaction and loyalty; SQ effect weaker in some models	Robustness checks NR; results sensitive to ownership / context differences (discussed qualitatively)	SEM; cross-sectional survey across Indonesian HEIs

Studies in HEIs increasingly emphasize measurement equivalence and comparability in service quality research. Confirmatory factor analysis is commonly used to examine whether service quality constructs are perceived consistently across different demographic and educational contexts, while standardized instruments such as SERVQUAL support cross-institutional comparisons of service quality and loyalty outcomes [33].

Methodological approaches such as Multi-Group Confirmatory Factor Analysis (MGCFA), Meta-

Analytic Structural Equation Modeling (MASEM), and multilevel modeling provide broader and more robust approaches to examining student loyalty. MGCFA assesses measurement invariance across student groups and institutions, while MASEM synthesizes findings across studies to identify broader loyalty patterns [40]. Multilevel modeling further enables the examination of individual- and institutional-level factors. However, these approaches remain underutilized, creating a methodological gap that limits cumulative theory building and cross-context comparability [50].

5. MANAGERIAL IMPLICATIONS

The findings of this systematic review provide several practical implications for HEIs seeking to strengthen student loyalty. First, university managers should treat service quality as a strategic priority. Responsiveness, reliability, empathy, assurance, and perceived quality influence student satisfaction and trust, which subsequently contribute to loyalty. HEIs should therefore strengthen academic and non-academic services through better staff responsiveness, student support, communication, and accessibility. These priorities should consider institutional differences, as private institutions may benefit more from personalized services, while public institutions may place greater emphasis on reputation and perceived value.

Second, university managers should integrate digital service quality into student loyalty strategies. The increasing use of learning management systems, university websites, online administrative services, and social media makes digital touchpoints an important part of the student experience. Usability, reliability, responsiveness, privacy, security, and system availability should therefore be continuously monitored to ensure service continuity across online and offline channels. These improvements can enhance e-satisfaction and trust, which contribute to student loyalty.

Third, institutional image, reputation, and CSR/USR should be managed as complementary components of student relationship management. CSR and USR can strengthen institutional reputation and image, which subsequently contribute to satisfaction, trust, advocacy, and loyalty. Universities should communicate social and environmental initiatives transparently and connect them to meaningful institutional practices rather than treating them solely as promotional activities. Finally, loyalty strategies should not be standardized across all HEIs, as ownership, delivery modality, geographic context, and measurement approaches can influence loyalty pathways. Managers should therefore use institution-specific evidence and student feedback when designing loyalty-oriented policies and service improvements.

6. CONCLUSION

This systematic review of 47 empirical studies shows that offline service quality remains a fundamental driver of student loyalty through responsiveness, empathy, assurance, and perceived quality, primarily mediated by satisfaction and trust. Institutional image and reputation further strengthen these relationships by shaping students' perceptions of institutional credibility and value. Digital transformation has expanded these pathways, with e-service quality usability, system reliability, responsiveness, privacy, security, and system availability serving as an important parallel route to loyalty, while CSR and USR initiatives reinforce institutional attachment when perceived as credible.

Nevertheless, the reviewed evidence shows substantial variation across public and private institutions, delivery modalities, geographic regions, and measurement approaches. These differences indicate that student loyalty should be understood as a context-sensitive outcome rather than as a uniform relationship across higher education settings. Overall, this review contributes to the literature by integrating offline service quality, e-service quality, institutional image and reputation, and CSR/USR within a unified understanding of student loyalty. The findings support a relationship-quality perspective in which service experiences are translated into loyalty through satisfaction and trust, while digital and reputational factors provide additional mechanisms for strengthening institutional relationships.

These insights are closely aligned with the United Nations SDGs, particularly SDG 4 (Quality Education) by supporting inclusive and equitable quality tertiary education, and SDG 9 (Industry, Innovation and Infrastructure) by emphasizing reliable digital platforms. Future research should place greater emphasis on longitudinal designs, cross-institutional comparisons, measurement invariance, multilevel analysis, and meta-analytic approaches to improve causal understanding and cross-context comparability in an increasingly digital

higher education environment.

7. DECLARATIONS

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