Effect of quality management practices on student satisfaction: A case study of Al-Qalam University, Katsina

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Abstract

Despite implementing various quality initiatives, Al-Qalam University, Katsina—a private Islamic university in Northern Nigeria—lacks empirical evidence on how its quality management practices affect student satisfaction, particularly in areas such as administrative responsiveness and personalized support. This gap hinders data-driven decision-making and strategic improvement. To address this, the study employed a quantitative survey of 370 undergraduate students using the SERVQUAL framework. Findings revealed that while assurance (staff competence and credibility) and tangibility (infrastructure) strongly drive satisfaction, responsiveness scored lowest, reflecting persistent bureaucratic delays and inadequate student-centered services. Based on these results, the study recommends: (1) digitizing administrative processes (e.g., registration, result release, and complaint handling) to enhance responsiveness; (2) investing in modern physical and digital infrastructure to strengthen tangibility; and (3) institutionalizing continuous staff development and student feedback mechanisms to sustain assurance and empathy. These actions are critical for improving student satisfaction, retention, and institutional competitiveness in Nigeria's tuition-dependent private university sector.

Keywords: Quality management, SERVQUAL, Total Quality Management (TQM), student satisfaction, higher education.

1. Introduction

Student satisfaction has emerged as a central performance indicator in higher education, reflecting the extent to which institutions meet students' academic and support service expectations (Okafor & Musa, 2024). In Nigeria's increasingly competitive university system—particularly between public and private institutions—student satisfaction plays a pivotal role in determining market share, financial sustainability, and institutional survival (Ibrahim et al., 2023). To assess service quality, scholars and practitioners have widely adopted the SERVQUAL model developed by Parasuraman, Zeithaml, and Berry (1988), which evaluates service delivery across five dimensions: tangibility, reliability, responsiveness, assurance, and empathy. Complementing this is the Total Quality Management (TQM) framework, which emphasizes continuous improvement, stakeholder engagement, and data-driven decision-making as core principles for achieving excellence in service delivery (Anyanwu, 2023). Together, these frameworks provide a robust foundation for understanding how quality management practices influence student satisfaction—particularly in tuition-dependent private universities where student perceptions directly shape institutional viability.

In the contemporary landscape of higher education, quality management has transcended its traditional role as a mere compliance mechanism for accreditation and evolved into a strategic imperative for institutional excellence, stakeholder satisfaction, and competitive advantage. Universities today operate in increasingly complex and competitive environments where students, employers, regulatory bodies, and the general public demand high standards in teaching, learning, and administrative service delivery. Within this ecosystem, students are not merely passive recipients of educational services but active evaluators of institutional performance. Their perceptions of quality directly influence critical outcomes such as institutional reputation, student retention, enrolment trends, and long-term competitiveness. When students are satisfied with both their academic and non-academic experiences, they are more likely to persist to graduation, advocate for the institution, and contribute positively as alumni (Okeke, 2024; Ibrahim et al., 2023).

Quality management in higher education spans both academic and administrative domains. Academically, it encompasses curriculum design and review, faculty development, effective pedagogical delivery, fair assessment systems, and responsive feedback mechanisms. On the administrative side, it includes efficient student registration, reliable ICT and library services, hostel management, financial operations, and overall campus infrastructure (Nnaji, 2023; Olaniyan & Idowu, 2023). A growing body of research confirms that the consistent implementation of these practices significantly enhances student satisfaction (Chukwuma & Bwacha, 2022). For instance, timely release of examination results, access to learning resources, and courteous administrative interactions are strongly correlated with higher satisfaction levels (Adewale & Kalu, 2022). This underscores the multidimensional nature of service quality in universities, which extends far beyond classroom instruction to encompass every touchpoint in the student journey.

Al-Qalam University, Katsina—a private Islamic university—operates within a unique institutional context shaped by Islamic values, regional socio-economic dynamics, and national higher education policies. As a growing institution competing for students and academic recognition, it has implemented various quality initiatives, including staff development programs, curriculum reviews, student feedback systems, and infrastructural upgrades (Muhammad & Yusuf, 2024). However, despite these efforts, there is a notable absence of empirical, particularly quantitative, evidence on how these practices impact student satisfaction. Without systematic measurement, it remains unclear whether students perceive these initiatives as effective or which specific SERVQUAL dimensions most influence their overall experience. This gap not only limits institutional self-assessment but also hinders strategic decision-making and resource allocation.

Existing research on quality management in Nigerian universities has largely focused on public institutions or broad quality assurance frameworks, often overlooking the unique characteristics of private faith-based universities (Eze & Chukwu, 2023). Moreover, few studies have employed a rigorous quantitative approach to isolate and measure the impact of specific quality dimensions on student satisfaction. This is especially significant for institutions like Al-Qalam University, where the integration of academic excellence with Islamic moral and ethical values may shape distinct quality expectations. The lack of context-specific, data-driven studies represents both a scholarly gap and a

practical challenge for institutional leadership.

Given the competitive higher education environment in Nigeria, student satisfaction is not just an academic concern but a strategic necessity. Institutions that fail to meet student expectations risk declining enrolment, reduced revenue, and reputational damage—outcomes that are particularly critical for private universities reliant on tuition income (Ibrahim et al., 2023). Therefore, understanding the relationship between quality management practices and student satisfaction is essential for institutional sustainability. This study addresses this need by examining the impact of quality management practices on student satisfaction at Al-Qalam University, Katsina, using a quantitative, SERVQUAL-based approach.

The study is guided by three central research questions: (1) What quality management practices are currently implemented at Al-Qalam University? (2) To what extent do these practices influence student satisfaction? and (3) Which specific areas require improvement to enhance satisfaction? The primary objective is to provide empirical evidence on the relationship between quality management and student satisfaction, with the aim of informing institutional policy and practice. Three null hypotheses were tested: (H_{01}) There is no significant relationship between quality management practices and student satisfaction; (H_{02}) Quality management practices have no significant influence on student satisfaction; and (H_{03}) There is no significant difference in satisfaction across quality practice areas.

The significance of this study is both practical and academic. For university management, the findings offer evidence-based insights to prioritize interventions, optimize resource use, and improve service delivery. For students, improved quality management can lead to a more supportive and engaging academic environment, enhancing retention and academic outcomes. Academically, the study contributes to the limited body of research on private Islamic universities in Nigeria, offering a replicable methodological model for similar institutions. It also provides valuable input for policymakers seeking to strengthen quality assurance frameworks in the private university sector.

The scope of the study is limited to Al-Qalam University, Katsina, focusing on undergraduate students across all faculties. It examines both academic and non-academic quality practices and their impact on student satisfaction, without extending to postgraduate students or other institutions. This focused approach allows for an in-depth analysis of the university's unique quality management context, ensuring relevance and precision in the findings. By bridging empirical gaps and offering actionable recommendations, this study aims to advance both scholarly understanding and institutional practice in the evolving landscape of Nigerian higher education.

2. Literature Review
I. Conceptual Review

Quality in higher education is a multidimensional construct encompassing teaching excellence, administrative efficiency, research output, infrastructure adequacy, and student support services. It reflects an institution's capacity to meet or exceed the expectations of key stakeholders—students, parents, employers, and regulatory bodies (Eze & Chukwu, 2023). In Nigeria, the National Universities Commission (NUC) establishes baseline quality standards related to curriculum relevance, faculty qualifications, and learning resources. However, contemporary understandings of quality transcend mere regulatory compliance, emphasizing a culture of

continuous improvement aimed at producing graduates capable of thriving in a dynamic global economy. This is especially salient in private, faith-based institutions like Al-Qalam University, Katsina, where quality is further shaped by missions that integrate academic rigor with moral and religious values, positioning it as both a compliance obligation and a strategic differentiator in a competitive enrollment landscape (Twum & Peprah, 2020).

Quality management practices constitute the structured mechanisms through which institutions uphold and enhance these standards across academic and administrative domains. Academically, they include curriculum review, faculty development, pedagogical innovation, fair assessment, and responsive feedback systems. Administratively, they encompass efficient registration, reliable ICT and library services, hostel management, and campus infrastructure (Nnaji, 2023; Olaniyan & Idowu, 2023). Two dominant frameworks guide the conceptualization and measurement of these practices: Total Quality Management (TQM) and the SERVQUAL model.

TQM, rooted in the work of Deming (1986), emphasizes institution-wide commitment to continuous improvement, stakeholder focus, and data-driven decision-making. When applied to higher education, TQM repositions students as primary customers whose satisfaction is central to institutional success. Empirical studies in Nigeria indicate that private universities implementing TQM principles—such as systematic feedback loops and interdepartmental collaboration—report enhanced service delivery and student outcomes (Magasi et al., 2022).

Complementing TQM, the SERVQUAL model (Parasuraman, Zeithaml, & Berry, 1988) operationalizes service quality through five measurable dimensions:

- Tangibility: physical infrastructure (classrooms, labs, ICT facilities);
- Reliability: consistency in service delivery (e.g., timely results);
- Responsiveness: prompt attention to student needs;
- Assurance: staff competence, courtesy, and credibility; and
- Empathy: personalized support recognizing individual circumstances.

Extant research in Nigeria and Tanzania confirms that all five dimensions significantly predict student satisfaction, which in turn mediates loyalty and retention (Borishade et al., 2021; Magasi et al., 2022).

Student satisfaction is defined as the extent to which students perceive their academic and non-academic expectations as fulfilled (Kolawole et al., 2022). As a critical performance indicator, it directly influences persistence, word-of-mouth advocacy, and institutional reputation—outcomes of existential importance to tuition-dependent private universities. Dissatisfaction, conversely, risks attrition and reputational harm, underscoring satisfaction's role as a strategic imperative for sustainability.

Grounded in service quality theory (Parasuraman et al., 1988), the relationship between quality management and student satisfaction posits that perceived service quality directly shapes satisfaction. Empirical evidence consistently supports this linkage: Borishade et al. (2021) found all SERVQUAL dimensions significantly affect satisfaction in Nigerian universities, while Magasi et al. (2022) reported similar results in Tanzania. These findings underscore the need for an integrated quality management approach that addresses both academic and administrative service quality. For Al-Qalam University, this conceptual relationship justifies a quantitative research design to empirically test how specific quality practices influence student

satisfaction in its unique faith-based context.

II. Theoretical Review

The study is anchored in three complementary theoretical frameworks: Total Quality Management (TQM), the SERVQUAL model, and Stakeholder Theory. TQM emerged in the mid-20th century as a holistic management philosophy pioneered by quality experts such as W. Edwards Deming, Joseph Juran, and Kaoru Ishikawa. Originally developed in manufacturing, TQM has been widely adapted to the service sector, including education (Deming, 1986; Juran, 1988). Its core principles include customer focus, continuous improvement, employee involvement, process-driven management, and data-based decision-making. In higher education, TQM shifts the institutional perspective by treating students as primary customers whose satisfaction is critical to organizational success (Sarrico & Rosa, 2019). This necessitates integrating quality improvement into all university processes—from curriculum design and delivery to administrative services and student support. Nigerian private universities that have embraced TQM principles, such as systematic feedback mechanisms and staff development programs, report improved service delivery and student outcomes (Ogbogu, 2021). For this study, TQM provides the philosophical foundation for understanding quality as a continuous, institution-wide responsibility.

The SERVQUAL model, developed by Parasuraman, Zeithaml, and Berry (1988), is one of the most influential frameworks for assessing service quality. It conceptualizes service quality as the gap between customer expectations and perceptions across five dimensions: tangibility, reliability, responsiveness, assurance, and empathy. Originally designed for commercial services, SERVQUAL has been successfully adapted to higher education, where the "service" includes teaching, administrative support, and campus facilities (Borishade et al., 2021). In this context, tangibility refers to physical facilities and technology; reliability to consistency in service delivery; responsiveness to promptness in addressing student needs; assurance to staff competence and credibility; and empathy to personalized attention. Numerous studies in Nigeria and other developing countries have validated SERVQUAL as a robust tool for measuring service quality in universities (Magasi et al., 2022). For this study, SERVQUAL provides a clear operational structure for quantifying quality management practices and linking them to student satisfaction.

Stakeholder Theory, popularized by Freeman (1984), posits that organizations must address the needs and expectations of multiple stakeholders—not just owners or shareholders. In higher education, key stakeholders include students, faculty, administrative staff, government regulators, employers, and the broader community. Students, as primary beneficiaries of educational services, are central to institutional survival and growth. Their satisfaction influences retention, graduation rates, alumni engagement, and institutional reputation (Mainardes et al., 2014). For private institutions like Al-Qalam University, student satisfaction directly affects financial sustainability, as tuition revenue is a primary funding source. Thus, quality management practices that prioritize student needs also fulfill the expectations of other stakeholders, including parents, employers, and accreditation bodies.

These three theories offer distinct yet complementary insights. TQM provides the overarching philosophy of continuous improvement and process optimization, emphasizing that quality is a university-wide responsibility. SERVQUAL

operationalizes quality into measurable dimensions suitable for quantitative analysis of student perceptions. Stakeholder Theory adds a strategic perspective, framing student satisfaction as part of a broader obligation to balance stakeholder interests. In this study, quality management practices (independent variable) are grounded in TQM principles but measured through SERVQUAL dimensions, while student satisfaction (dependent variable) is understood as both a service outcome and a fulfillment of stakeholder obligations. This integration supports the study's quantitative design, enabling the formulation of testable hypotheses—such as the expectation that higher performance in SERVQUAL dimensions will positively influence satisfaction—thereby enhancing the research's relevance to policy, practice, and future scholarship in Nigerian higher education.

III. Empirical Review

A substantial body of international research has explored the link between quality management practices and student satisfaction in higher education, often using the SERVQUAL framework. In Vietnam, Do Quang Hung (2024) conducted a quantitative study at the University of Transport Technology and found that SERVQUAL dimensions significantly impact student satisfaction with training services, providing actionable insights for institutional policy. Similarly, Phạm Tuan Anh (2024) investigated graduate training at the University of Commerce, revealing that trust and overall program quality are critical determinants of postgraduate satisfaction. In Ethiopia, Sileshi Talegeta, Tigist Worku, and Ayana Gemechu (2018) confirmed significant relationships between all five SERVQUAL dimensions and student satisfaction at Ambo University using regression and correlation analysis. Another study by Desalegn Ejigu

Tefera (2020) at the University of Gondar reported a moderate satisfaction rate (65.4%) among undergraduates, with variation across service domains. Lingerew Atinkut and Yadergal Abe (2019) found a strong positive correlation $(r = 0.569, p < 0.01)$ between library service quality and student satisfaction at Wollo University, with SERVQUAL dimensions explaining 84.3% of the variance in satisfaction. Comparative studies by Skýpalová et al. (2023) in the Czech Republic and Vietnam revealed that while perceived quality fell below expectations, Vietnamese students prioritized tangibles, whereas Czech students valued empathy more highly. Additionally, Long Pham et al. (2019) demonstrated that e-learning service quality significantly influences satisfaction and loyalty among Vietnamese students, highlighting the evolving nature of quality in digital education.

Within sub-Saharan Africa, empirical studies reinforce these patterns. In Nigeria, Borishade et al. (2018) used the SERVQUAL framework to show that all service quality dimensions significantly influence student satisfaction and loyalty in a private university. Olatunji and Adebayo (2020) identified administrative responsiveness and academic service delivery as the strongest predictors of satisfaction. In Ethiopia, Asfaw and Belay (2019) found that tangibility and assurance had the greatest impact on satisfaction at Ambo University, while Haile and Nigatu (2021) at the University of Gondar reported that assurance and tangibility were significant predictors, with empathy and responsiveness being weaker but still positive. In Ghana, Amoako, Kwarteng, and Donkor (2022) found that academic services, administrative efficiency, and infrastructure were central to satisfaction, while Owusu and Mensah (2020) showed that for distance learners, access to information and reliable communication

outweighed physical facilities. In Kenya, Koech and Cheboi (2018) identified responsiveness and reliability as key predictors in public universities, while Smith and Mavundla (2019) in South Africa emphasized assurance—driven by lecturer competence—as the strongest factor, with tangibility being less influential due to already developed infrastructure.

Three key trends emerge from these African studies: first, tangible resources such as classrooms, labs, and ICT facilities are critical predictors in resource-constrained environments (Borishade et al., 2018; Asfaw & Belay, 2019; Haile & Nigatu, 2021); second, assurance—rooted in staff professionalism—is consistently important (Amoako et al., 2022; Smith & Mavundla, 2019); and third, responsiveness and reliability in administrative processes strongly affect satisfaction, especially where bureaucratic delays are common (Olatunji & Adebayo, 2020; Koech & Cheboi, 2018). Despite this growing body of research, significant gaps remain. Most studies focus on public universities, with few examining private or faith-based institutions like Al-Qalam University. Purely quantitative studies in private Islamic universities are particularly scarce, limiting generalizability and evidence-based policy formulation. Moreover, many studies adopt a narrow focus—on either academic quality or infrastructure—without integrating administrative efficiency and feedback systems. Finally, there is a lack of research contextualizing service quality within Islamic values, such as moral conduct, religious alignment, and ethical service delivery, which may shape student expectations in unique ways. Addressing these gaps through a focused, quantitative study at Al-Qalam University contributes new knowledge and offers a replicable model for similar institutions.

IV. Conceptual Framework

This study adopts the SERVQUAL model (Parasuraman, Zeithaml & Berry, 1988) to explain how quality management practices affect student satisfaction in higher education. The framework highlights five independent variables—tangibility, reliability, responsiveness, assurance, and empathy—which reflect both academic and administrative service quality. These dimensions are underpinned by Total Quality Management (TQM) principles such as continuous improvement, stakeholder focus, and process efficiency.

The dependent variable, student satisfaction, represents the extent to which students' expectations are met or exceeded in terms of educational and support services. The framework assumes a direct and positive relationship between quality management practices and satisfaction, with some dimensions (e.g., assurance, responsiveness) potentially exerting stronger influence.

This model is supported by empirical studies (Borishade et al., 2018; Amoako et al., 2022; Asfaw & Belay, 2019), which show that enhancing specific service quality elements significantly improves satisfaction in higher education contexts. By situating this within a private Islamic university in Nigeria, the framework provides a structured basis for testing the study's hypotheses.

Conceptual Framework
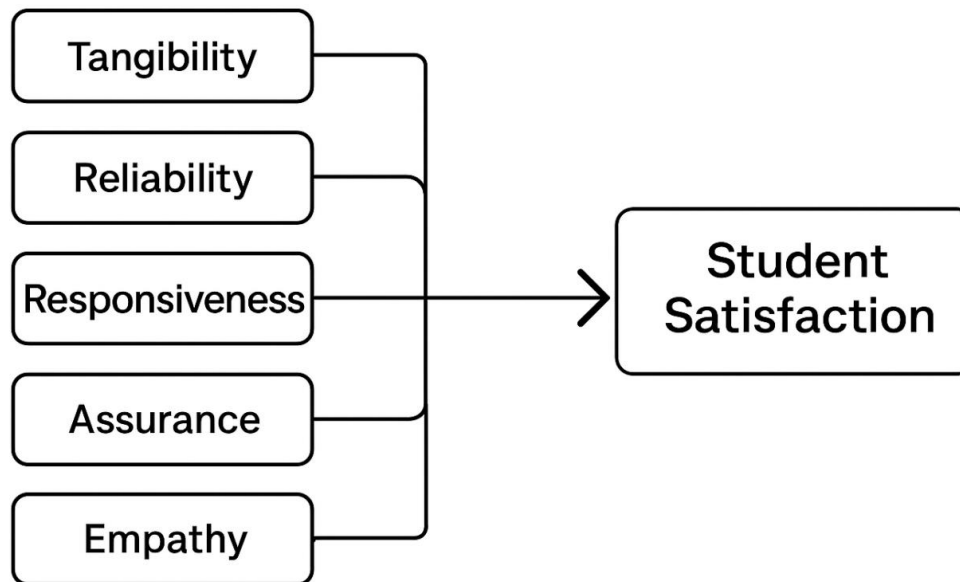
3. Methodology

This study employed a quantitative research approach within a cross-sectional survey design to examine the impact of quality management practices on student satisfaction at Al-Qalam University, Katsina. The SERVQUAL model (Parasuraman, Zeithaml & Berry, 1988) was used to operationalize five key service quality dimensions—tangibility, reliability, responsiveness, assurance, and empathy—as independent variables, with student satisfaction as the dependent variable. The target population comprised 5,045 undergraduate students across all faculties and academic levels, a figure obtained from the university's official enrolment records for the 2023/2024 academic session (Al-Qalam University, Katsina, Institutional Data Unit, 2024). From this population, a representative sample of 370 students was selected using Yamane's (1967) formula for finite populations, complemented by stratified random sampling to ensure proportional representation across faculties and year levels, thereby minimizing selection bias

and enhancing the generalizability of findings (Krejcie & Morgan, 1970; Etikan & Bala, 2017; Hair et al., 2022).

Primary data were collected through a structured 5-point Likert-scale questionnaire adapted from validated SERVQUAL instruments widely used in higher education research (e.g., Borishade et al., 2021; Magasi et al., 2022). The instrument was contextualized to reflect the operational realities of Al-Qalam University by incorporating items relevant to its academic and administrative services, Islamic ethos, and local infrastructure. It comprised three main sections: (1) demographic characteristics (e.g., gender, age, faculty, level of study), (2) perceptions of quality management practices across the five SERVQUAL dimensions, and (3) overall student satisfaction. This structure directly aligns with the study's objectives of identifying implemented quality practices, assessing their influence on satisfaction, and pinpointing areas needing improvement. Secondary data from institutional records—including enrolment statistics, infrastructure reports, and quality

assurance documentation—were also reviewed to provide contextual background and triangulate self-reported findings, in line with best practices for mixed-source validation in institutional research (Ali et al., 2021; Ilyas et al., 2022; Creswell & Creswell, 2018).

The final instrument demonstrated strong internal consistency, with a Cronbach's alpha of 0.82, indicating high reliability. Data were analyzed using SPSS Version 26, employing descriptive statistics, Pearson correlation, and multiple regression to address the core relationships between service quality and satisfaction. Additionally, Analysis of Variance (ANOVA) was used to test for statistically significant differences in satisfaction levels across student subgroups (e.g., by faculty or academic level). This technique directly supports the study's third objective—to identify specific areas requiring improvement—by revealing whether certain departments or student cohorts experience systematically lower service quality, thereby enabling targeted, evidence-based recommendations for institutional enhancement.

4. Results and Discussion

This study examined the influence of quality management practices on student satisfaction at Al-Qalam University, Katsina, using a quantitative cross-sectional design grounded in the SERVQUAL framework. Data were obtained from 370 undergraduate students and analyzed using descriptive and inferential statistics with SPSS (Version 26). The findings are presented and discussed in relation to the study's objectives and prior literature on service quality in higher education.

4.1 Demographic Profile of Respondents

The sample comprised 56.8% male (n = 210) and 43.2% female (n = 160) students, a distribution consistent with gender trends in Nigerian higher education (Nwankwo et al., 2020). Half of the respondents (50.0%) were aged 20–24 years, reflecting typical undergraduate demographics. Faculty representation was diverse: Social and Management Sciences (28.4%), Sciences (24.3%), Arts and Humanities (23.0%), Islamic Studies (18.9%), and Other (5.4%). Academic levels were evenly distributed across 100 to 400 levels (23.0–27.0%), ensuring representativeness across cohorts.

4.2 Descriptive Analysis of SERVQUAL Dimensions

Students' perceptions of service quality varied across the five SERVQUAL dimensions (Table 4.2). *Assurance* recorded the highest mean score (M = 3.80, SD = 0.90), suggesting strong confidence in staff competence, courtesy, and credibility—consistent with Parasuraman et al. (1988). *Tangibility* followed (M = 3.45, SD = 0.82), indicating moderate satisfaction with the physical facilities, including classrooms, libraries, and ICT resources. *Reliability* (M = 3.20, SD = 0.75) and *Empathy* (M = 3.10, SD = 0.72) received moderate ratings, reflecting the need for greater consistency and personalized student support. *Responsiveness* obtained the lowest mean score (M = 2.95, SD = 0.68), pointing to persistent delays in administrative processes—a recurring challenge in Nigerian higher institutions (Abdullah, 2021).

Table 4.2: Mean Scores of SERVQUAL Dimensions

Dimension	Mean (1–5)	SD	Interpretation
Tangibility	3.45	0.82	Moderate
Reliability	3.20	0.75	Moderate
Responsiveness	2.95	0.68	Low
Assurance	3.80	0.90	High
Empathy	3.10	0.72	Moderate

4.3 Student Satisfaction Levels

More than half of the respondents (55.4%) reported being satisfied or very satisfied with university services (Table 4.3). However, 18.9% expressed dissatisfaction, primarily citing administrative inefficiencies, inadequate infrastructure, and poor responsiveness. These results underscore ongoing gaps in non-academic service delivery and highlight the need for management reforms.

Table 4.3: Student Satisfaction Levels

Satisfaction Level	Frequency	Percentage (%)
Very Satisfied (5)	85	23.0
Satisfied (4)	120	32.4
Neutral (3)	95	25.7
Dissatisfied (2)	50	13.5
Very Dissatisfied (1)	20	5.4
Total	**370**	**100.0**

4.4 Hypothesis Testing

Correlation and Regression Analysis

Pearson correlation analysis revealed significant positive relationships between all SERVQUAL dimensions and student satisfaction (Table 4.4). *Assurance* showed the strongest correlation (r = 0.50, p < 0.001), followed by *Tangibility* (r = 0.42, p = 0.001). Multiple regression analysis indicated that the five dimensions collectively explained 58% of the variance in satisfaction ($R^2 = 0.58$, F = 24.75, p < 0.001). Among the predictors, *Assurance* had the greatest influence ($\beta = 0.35$, p < 0.001), followed by *Tangibility* ($\beta = 0.25$, p = 0.002). Consequently, both H_{01} and H_{02} were rejected.

Table 4.4: Correlation Between SERVQUAL Dimensions and Satisfaction

Variable	r	p-value
Tangibility	0.42	0.001
Reliability	0.38	0.003
Responsiveness	0.35	0.005
Assurance	0.50	<0.001
Empathy	0.30	0.010

ANOVA Analysis

To test H_{03} — *"There is no significant difference in satisfaction across faculties"* — a one-way ANOVA was conducted. The results indicated statistically significant differences in mean satisfaction scores across faculties for all SERVQUAL dimensions (Table 4.7). *Responsiveness* exhibited the largest variation (F = 5.10, p = 0.001), followed by *Tangibility* (F =

4.25, p = 0.006) and *Empathy* (F = 3.40, p = 0.018). These findings imply that differences in faculty-level administration, resource distribution, and service processes influence student satisfaction. Thus, H_{03} was rejected, confirming that satisfaction varies significantly by academic unit.

Table 4.7: ANOVA Results for Differences Across Faculties

Dimension	F-value	p-value
Tangibility	4.25	0.006
Reliability	3.80	0.012
Responsiveness	5.10	0.001
Assurance	2.95	0.033
Empathy	3.40	0.018

4.5 Discussion of Findings

The findings confirm that quality management practices exert a significant influence on student satisfaction at Al-Qalam University. *Assurance*, reflecting staff professionalism, courtesy, and trustworthiness, emerged as the most critical determinant of satisfaction, consistent with prior research in African higher education (Borishade et al., 2021; Magasi et al., 2022). Conversely, *Responsiveness* received the lowest ratings, reinforcing evidence of administrative bottlenecks and bureaucratic delays in Nigerian universities (Olatunji & Adebayo, 2020). These inefficiencies highlight the need for process digitalization and customer-centric service reforms.

Moreover, the significant inter-faculty variations in satisfaction levels suggest that students' experiences are shaped by localized administrative practices and uneven resource distribution. Faculties with stronger management structures and better infrastructure achieved higher satisfaction scores, emphasizing the importance of decentralized quality management and equitable allocation of resources.

5. Conclusion and Recommendation

The study concludes that quality management practices significantly influence student satisfaction at Al-Qalam University, Katsina, with all five SERVQUAL dimensions—tangibility, reliability, responsiveness, assurance, and empathy—showing a positive and statistically significant relationship. Assurance emerged as the strongest predictor of satisfaction (β = 0.35), underscoring the critical role of staff competence, credibility, and professionalism in shaping student experiences, consistent with findings by Borishade et al. (2021) and Magasi et al. (2022). However, responsiveness scored the lowest (mean = 2.95), highlighting persistent challenges with administrative delays and slow service delivery, a concern echoed in studies by Olatunji and Adebayo (2020). While 55.4% of students reported being satisfied or very satisfied, the findings reveal a clear need for targeted improvements in infrastructure, service consistency, and institutional responsiveness to elevate overall satisfaction and institutional effectiveness. To improve the quality of services, the university should prioritize the introduction of digital tools for key administrative processes such as course

registration, results management, and handling of student complaints. This will help reduce delays and enhance overall responsiveness. Efforts should also be directed toward upgrading both physical and technological facilities—particularly classrooms, laboratories, and online learning systems—to create a more supportive learning environment. In addition, continuous professional training for academic and non-academic staff is vital to maintain competence, reliability, and trust in service delivery. Regular feedback from students, gathered through satisfaction surveys and active participation in quality assurance committees, will promote transparency and encourage joint responsibility for improvement. For future studies, researchers may consider examining similar institutions, especially other private Islamic universities, using longitudinal or comparative designs. Qualitative investigations that explore how cultural and religious values shape students' views of service quality would also provide deeper and more contextually relevant insights.

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