

Reframing Student Engagement as a Policy Outcome: A Services Marketing Examination of Higher Education Quality

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Abstract

Higher education institutions (HEIs) operate primarily as policy-governed service systems where quality, accountability, and measurable outcomes are critical. Though student engagement has conventionally been conceptualised as a pedagogical or psychological construct, this paper reframes engagement as a **policy outcome** resulting from institutional service quality. This study draws on service marketing and transformative service research to understand and investigate how key service quality dimensions like administrative support, core educational quality, physical environment, support services, and transformative quality impact student engagement in higher education. Considering HEIs as public service providers, it argues that student engagement indicates how effectively policy expectations, accreditation requirements, and institutional strategies are converted into meaningful experiences and public value. This reconceptualization advances services marketing scholarship by connecting quality, engagement, and policy governance, and provides practical insights for policymakers, accreditation agencies, and higher education leaders dedicated to improving system performance, student outcomes, and societal well-being.

1. Introduction

Higher education institutions (HEIs) are known as complex service organisations operating within competitive and policy-regulated environments where quality, accountability, and measurable outcomes are essential (Quinn et al., 2009). Present-day higher education is not only a source of knowledge but also serves as a **public service system** guided by national policy mandates, accreditation frameworks, and global quality assurance standards (Teeroovengadam et al., 2016). In this dynamic educational environment, service quality has become a key factor in determining institutional effectiveness, legitimacy, and public trust.

Service quality research has continuously stressed the fact that institutional quality goes way beyond teaching excellence to encompass administrative efficiency, institutional processes, campus infrastructure, student support, and value-based educational experiences (Parasuraman et al., 1985; Weerasinghe & Fernando, 2018). Holistic quality models such as HESQUAL conceptualise higher education quality across several dimensions, including administrative quality, core educational quality, physical environment, support services, and transformative quality (Teeroovengadam et al., 2016). Higher and better service quality has been linked to enhanced satisfaction, institutional loyalty, reputation of the HEIs, and positive student outcomes (Tomašević et al., n.d.; Weerasinghe & Fernando, 2018).

Alongside these developments, **student engagement** has gained prominence as a key indicator of institutional success. Student engagement refers to students' behavioural participation,

emotional connection, and cognitive investment in academic and institutional activities (Bowden et al., 2021; Kuh, 2001; Trowler, 2010). Extensive evidence indicates that student engagement positively impacts academic achievement, persistence, well-being, and holistic development (Almarghani & Mijatovic, 2017; Siddiqi et al., 2022). More importantly, research also demonstrates that engagement is shaped not only by individual student attributes but by **institutional quality, administrative responsiveness, learning environments, faculty commitment, and supportive governance structures** (Cavallone et al., 2022; Nguyen, 2024; Snijders et al., 2022).

In recent years, global higher education policy discourse has repositioned student engagement from a mere pedagogical construct to a policy outcome. Policymakers, accreditation authorities, and regulatory bodies emphasise engagement as evidence of institutional accountability, inclusiveness, resilience, and alignment with national development goals. (Bajarias et al., 2025; Research Scholar, Department of Education, Jadavpur University, Kolkata, India et al., 2024; Yang et al., 2023). Student engagement outcomes are now also influenced by the governance effectiveness, resource allocation, equal participation, community impact, employability readiness, and long-term societal contribution (Department of Applied Mathematics and Computational Science, Thiagarajar College of Engineering Madurai, India et al., 2025; Doğan & Arslan, 2025; Singh et al., n.d.). These developments support that student engagement is now being viewed as a **public value indicator**, indicating how well HEIs fulfil their policy mandates and societal responsibilities.

However, even with these policy shifts, existing scholarly works largely treat service quality and student engagement as **separate streams of inquiry**. Service quality research focuses mainly on satisfaction and loyalty, while engagement literature focuses on learning outcomes and student experience. There has been very limited research that conceptualises student engagement as a **direct outcome of institutional service quality within a policy-regulated service ecosystem** (Nguyen, 2024; Snijders et al., 2022). Even fewer studies exclusively frame student engagement as an institutional/government **policy outcome**, showcasing institutional governance, accountability, and service performance.

This paper tries to address this gap by integrating services marketing, higher education quality research, and public policy perspectives to **reposition and reframe student engagement as a policy outcome generated through institutional service quality**. Positioning HEIs as public service providers, the paper contests that service quality dimensions act as policy levers that influence engagement, providing a holistic understanding of institutional effectiveness, system performance, and societal value creation.

2. Literature Review

2.1. Service Quality in Higher Education

Higher education institutions (HEIs) increasingly operate as service organisations within complex regulatory, accreditation, and policy ecosystems. Traditional service quality theory highlighted quality as the gap between expectations and perceived performance (Parasuraman et al., 1985). Early adaptations to higher education emphasised responsiveness, reliability, assurance, empathy, and tangibility as determinants of perceived institutional quality (Athiyaman, 1997). As higher education systems evolved, researchers advocate for a more context-specific view of quality that goes beyond negotiable service elements to incorporate

academic, administrative, experiential, and strategic dimensions (Douglas & Douglas, 2006; Quinn et al., 2009).

Recent research repeatedly stresses that quality in higher education is **multidimensional and system, comprising** teaching effectiveness, curriculum relevance, faculty competence, institutional governance, administrative efficiency, and campus facilities (Iqbal & Zikria, 2022; Weerasinghe & Fernando, 2018). Models such as HESQUAL provide structured frameworks for evaluating higher education quality through dimensions including administrative quality, physical environment, core educational quality, support services, and transformative quality (Teeroovengadum et al., 2016). Quality frameworks continually stress on the importance of **student-centred processes**, transparent administrative procedures, and supportive academic services to strengthen educational experiences (Ahmad et al., n.d.; Ntoyakhe & Ngibe, 2020).

Many studies show that perceived service quality in higher education leads to student satisfaction, institutional loyalty, trust, reputation, and positive learning experiences (Khan et al., 2022; Weerasinghe & Fernando, 2018). Quality also enhances students' emotional connection with institutions and perceptions of institutional legitimacy (Cavallone et al., 2022). Importantly, quality frameworks today are based not only on institutional priorities but are also shaped by national policies, accreditation requirements, and public accountability mechanisms, emphasising the idea that quality in HEIs is both a **marketing construct and a policy performance indicator** (Noaman et al., 2017; Teeroovengadum et al., 2016).

2.2. Student Engagement in Higher Education

Student engagement has become a major construct in contemporary higher education research. Student engagement is interpreted as students' behavioural participation, emotional involvement, and cognitive investment in learning and institutional life (Fredricks et al., 2004; Kuh, 2001; Trowler, 2010). Engagement predicts and reflects attendance of students, efforts put in by the students, persistence, zeal, affective bonding, and their deep learning orientation (Bowden et al., 2021).

Empirical research continually confirms that higher levels of student engagement is associated with improved academic performance, persistence, graduation rates, personal development, self-efficacy, well-being, and lifelong learning orientation (Almarghani & Mijatovic, 2017; Büchele, 2021; Siddiqi et al., 2022). Engagement is influenced by both **innate factors**, such as motivation and attitudes, and **institutional factors**, such as teaching quality, curriculum clarity, supportive faculty relationships, administrative functioning, and campus environments (Cavallone et al., 2022; Nguyen, 2024; Snijders et al., 2022).

Research also highlights that student engagement is defined through trust, communication, teacher-student relationships, and a sense of belonging within institutional communities (Snijders et al., 2022). Social climate, classroom inclusiveness, peer interactions, and extracurricular participation further support and strengthen engagement outcomes (Siddiqi et al., 2022; Wan et al., 2023). Therefore, student engagement is viewed not merely as student behaviour but also as a **shared institutional responsibility** resulting from systemic structures, support mechanisms, and governance practices (Cavallone et al., 2022; Nguyen, 2024).

2.3. Student Engagement as a Policy Outcome

Recent policy discourse reframes higher education as a **public service system**, where engagement acts as a measurable indicator of institutional accountability, effectiveness, and societal contribution. Governments, accreditation authorities, and regulatory agencies

increasingly evaluate institutions based on evidence of participation, inclusiveness, student well-being, achievement, and employability readiness (Kuh, 2001; Trowler, 2010). Engagement has therefore emerged as a **policy-relevant construct**, indicating the extent to which policy intentions and institutional mandates translate into meaningful student experiences (Department of Applied Mathematics and Computational Science, Thiagarajar College of Engineering Madurai, India et al., 2025; Yang et al., 2023).

Policy-aligned studies argue that student engagement shows the responsiveness of institutional services, the effectiveness of governance systems, and alignment with national development priorities (Doğan & Arslan, 2025; Yang et al., 2023). Engagement is increasingly associated with public value creation, social equity, digital access, resilience during crises, and community impact (Singh et al., n.d.). Thus, student engagement is not just a pedagogical concern anymore; in fact, it is now central to quality assurance, system performance evaluation, and educational governance.

2.4. Linking Service Quality and Student Engagement

Although service quality and student engagement have traditionally developed as separate research streams, growing evidence shows significant interrelationships between them. Institutional service quality, encompassing administrative efficiency, faculty competence, pedagogical effectiveness, physical learning environments, support facilities, and emotional care, significantly influences students' likelihood to engage emotionally, cognitively, and behaviourally (Iqbal & Zikria, 2022; Teeroovengadum et al., 2016). When students find institutional systems as supportive, transparent, responsive, and student-centred, they show stronger engagement, deeper learning commitment, and sustained institutional connection (Cavallone et al., 2022; Snijders et al., 2022).

Quality-driven environments reinforce trust, psychological safety, and belongingness, which leads to student motivation and active participation (Nguyen, 2024; Siddiqi et al., 2022). Further, supportive academic counselling, extracurricular opportunities, and inclusive campus cultures enhance emotional engagement and institutional attachment (Wan et al., 2023). Recent empirical evidence suggests that **service quality catalyses engagement**, meaning engagement may be interpreted as an **outcome emerging from institutional quality performance**.

However, despite growing recognition, limited research explicitly views student engagement as a **direct policy outcome of service quality within regulated higher education service ecosystems**. This represents a critical theoretical and empirical gap. The present study addresses this gap by positioning service quality dimensions as **policy levers** that drive student engagement, thereby integrating service marketing, public policy, and higher education governance perspectives.

3. Conceptual Framework And Hypothesis

As already stated Higher education institutions increasingly operate as policy-governed service ecosystems. From a services marketing perspective, service quality represents a critical institutional mechanism through which value is created and stakeholder expectations are met. From a public policy perspective, service quality functions as an instrument through which policy directives, regulatory expectations, and governance frameworks are translated into institutional practice and student experience (Noaman et al., 2017; Teeroovengadum et al., 2016; Weerasinghe & Fernando, 2018).

Within this integrated perspective, **student engagement can be viewed as a policy outcome emerging from institutional service quality performance**. Student engagement indicates the

extent to which governance systems, accreditation mandates, and policy priorities transform into meaningful, participatory, and empowering student experiences (Kuh, 2001; Nguyen, 2024; Trowler, 2010). When institutions effectively implement policy-driven quality measures, students are more likely to experience supportive administration, meaningful teaching, conducive environments, comprehensive support systems, and transformative learning opportunities, all of which promote emotional, behavioural, and cognitive engagement (Cavallone et al., 2022; Siddiqi et al., 2022; Snijders et al., 2022).

Therefore, the conceptual framework of this study positions five higher education service quality dimensions i.e. administrative support, core educational quality, physical environment, support and extracurricular services, and transformative quality, as **policy-linked institutional mechanisms** that generate student engagement as an outcome. These quality dimensions represent the operational channels through which policy expectations regarding accountability, inclusiveness, effectiveness, and public value creation are realized within institutional practice.

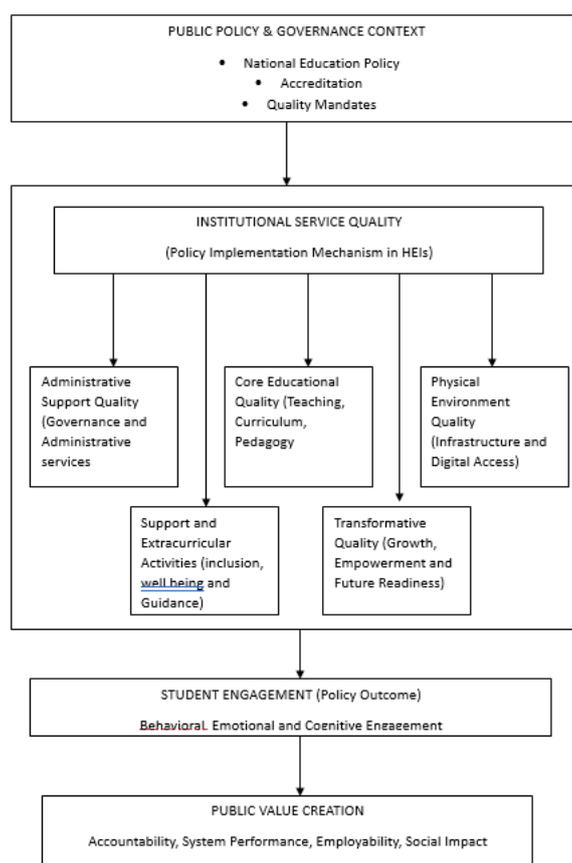


Figure 1. Conceptual Framework: Sturealiseddent Engagement as a Policy Outcome of Higher Education Service Quality.

The framework conceptualises higher education institutions as policy-governed service ecosystems. Institutional service quality dimensions, which include administrative support, core educational quality, physical environment, support services, and transformative quality, act as policy implementation mechanisms that shape student engagement, which functions as a policy outcome and indicator of public value creation.

Administrative support quality shows how well the institutional governance systems, policy implementation processes, and administrative structures support students through transparent procedures, responsiveness, and efficient service delivery. Administrative quality has been associated with trust, fairness, inclusiveness, and positive institutional experience (Iqbal & Zikria, 2022; Weerasinghe & Fernando, 2018). Policy discourse emphasises the importance of effective administration in realising governance accountability and ensuring student-centred implementation of policy initiatives (Department of Applied Mathematics and Computational Science, Thiagarajar College of Engineering Madurai, India et al., 2025; Research Scholar, Department of Education, Jadavpur University, Kolkata, India et al., 2024). Therefore, administrative quality is expected to enhance student engagement as part of policy realisation.

H1: Administrative support quality, as a governance and policy-implementation mechanism, has a significant positive relationship with student engagement.

Core educational quality, which includes curriculum relevance, teaching effectiveness, faculty competence, assessment fairness, and pedagogical engagement, is the backbone of higher education policy expectations. Studies have shown that high-quality teaching environments promote motivation, learning commitment, and student engagement (Almarghani & Mijatovic, 2017; Bowden et al., 2021; Nguyen, 2024). Policy frameworks similarly highlight teaching excellence, meaningful learning, and competency development as key objectives of higher education governance (Kuh, 2001; Trowler, 2010). Thus, core educational quality represents a policy-driven quality dimension expected to generate engagement.

H2: Core educational quality, reflecting policy-driven expectations of teaching excellence and curriculum relevance, has a significant positive relationship with student engagement.

Physical environment quality that includes infrastructure, classroom facilities, digital learning access, campus resources, and learning spaces is gaining significance in both service experience and policy compliance. Quality learning environments increase comfort, promote a sense of belongingness, enhance participation, and institutional connectedness (Siddiqi et al., 2022; Wan et al., 2023). Policy frameworks emphasise equitable access to infrastructure, digital inclusion, and conducive learning environments as indicators of institutional quality and system readiness (Doğan & Arslan, 2025; Yang et al., 2023). Hence, physical environment quality is positioned as a policy-relevant determinant of student engagement.

H3: Physical environment quality, as part of policy-directed infrastructural provision and access equity, has a significant positive relationship with student engagement.

Support and extracurricular services like counselling, mentoring, academic support, career services, and co-curricular engagement represent institutional mechanisms that bring about holistic development, emotional well-being, social integration, and inclusiveness (Ntoyakhe & Ngibe, 2020; Teeroovengadum et al., 2016). Engagement literature confirms the role of such support structures in enhancing belongingness, emotional connection, and active participation (Siddiqi et al., 2022; Snijders et al., 2022). Policy perspectives consider these services as essential to ensuring equality, student retention, and inclusive participation (Singh et al., n.d.). Thus, support services reflect policy priorities and are expected to enhance engagement.

H4: Support and extracurricular services quality, aligned with policy priorities of inclusiveness, well-being, and holistic development, has a significant positive relationship with student engagement.

Transformative quality refers to an institution's ability to facilitate deep learning, personal growth, critical thinking ability, identity development, future readiness, and social responsibility. Such transformative outcomes are connected to emotional and cognitive engagement as students perceive education as meaningful and life-changing and enriching (Bowden et al., 2021; Gill et al., 2022; Nguyen, 2024). Policy frameworks highlight transformative learning, graduate attributes, employability readiness, and societal contribution as central outcomes of higher education (Research Scholar, Department of Education, Jadavpur University, Kolkata, India et al., 2024). Therefore, transformative quality is also viewed as a policy-aligned dimension that is expected to elevate engagement.

H5: Transformative quality, reflecting policy goals of developing capable, future-ready, and socially responsible graduates, has a significant positive relationship with student engagement.

Together these hypotheses conceptualise student engagement not merely as a psychological or behavioural construct but as a **policy outcome** emerging from policy-linked institutional quality mechanisms. The proposed framework, therefore integrates services marketing, higher education quality research, and public policy perspectives, demonstrating how institutional service quality dimensions function as **policy levers** that shape engagement within higher education service ecosystems.

4. Research Methodology

4.1. Research Design

This study uses a **quantitative, cross-sectional research design** to empirically examine student engagement as a **policy outcome** generated through institutional service quality in higher education. A structured survey method is employed to capture perceptions of service quality dimensions and student engagement, consistent with prior higher education and services marketing research (Snijders et al., 2022; Teeroovengadum et al., 2016; Weerasinghe & Fernando, 2018). The design is appropriate as it enables the examination of perceptual constructs, hypothesis testing, and statistical estimation of relationships between policy-driven institutional mechanisms and engagement outcomes.

4.2. Population and Sampling

The target population comprises **management students enrolled in higher educational institutions (HEIs) in India**. Management students are appropriate respondents as they operate in structured academic environments where policy directives, accreditation frameworks, service delivery systems, and institutional quality mechanisms are actively operationalised.

A **multi-stage purposive sampling approach** is employed. In the first stage, HEIs are selected based on accreditation and regulatory recognition (e.g., UGC/AICTE affiliation), ensuring that institutions operate under formal policy governance frameworks. In the second stage, management departments or programs are identified, and in the final stage, currently enrolled students are approached to participate in the study. This approach ensures that the selected respondents belong to institutions where policy-driven quality mechanisms are relevant and actively implemented (Noaman et al., 2017; Research Scholar, Department of Education, Jadavpur University, Kolkata, India et al., 2024).

The sample size ($n = 75$) is considered adequate for PLS-SEM analysis, which is well-suited for exploratory research and smaller samples. Prior methodological studies suggest that PLS-

SEM can produce reliable estimates even with limited sample sizes, particularly when the model complexity is moderate.

4.3. Instrumentation and Measures

Data will be collected using a **structured questionnaire** comprising three sections: demographic information, service quality constructs, and student engagement items. All constructs are measured using established scales adapted from validated higher education and services marketing literature.

• **Service Quality Dimensions**
Administrative support quality, core educational quality, physical environment quality, support and extracurricular quality, and transformative quality will be measured using items adapted from higher education service quality models, particularly HESQUAL and related frameworks (Iqbal & Zikria, 2022; Teeroovengadum et al., 2016; Weerasinghe & Fernando, 2018). Items will assess perceptions of institutional governance effectiveness, curriculum and teaching quality, infrastructure adequacy, student support provisions, and transformative educational experiences.

• **Student Engagement**
Student engagement will be measured as a multidimensional construct encompassing behavioural, emotional, and cognitive engagement, drawing from established engagement literature (Bowden et al., 2021; Fredricks et al., 2004; Kuh, 2001; Snijders et al., 2022). Items will include participation, involvement, motivation, institutional bonding, learning investment, and reflective engagement.

All items will be measured using a **five-point Likert scale** ranging from strongly disagree (1) to strongly agree (5). Minor contextual modifications will be made where required to suit the higher education policy context, while maintaining conceptual integrity.

4.4. Reliability and Validity

The reliability of the instruments will be determined by means of Cronbach's alpha, with the expectation of internal consistency of constructs, which should have at least a 0.70 criterion (Nunnally, 1978). Construct validity will be tested via confirmatory factor analysis (CFA) as a means of establishing convergent and discriminant validity. Factor loadings and Average Variance Extracted ($AVE \geq 0.50$) will be used to measure convergent validity, whereas the Fornell-Larcker criteria will be used to measure discriminant validity.

The content validity is achieved by basing it on the already validated scales and compatibility with policy and engagement literature (Nguyen, 2024; Snijders et al., 2022; Teeroovengadum et al., 2016).

4.5. Data Analysis

The analysis of the data was performed by the Partial Least Squares Structural Equation Modelling (PLS-SEM) through the SmartPLS software. PLS-SEM was selected because it can be used in research with exploratory research, complex models with numerous constructs, and research with a relatively small sample size.

Since the sample size is 75, PLS-SEM is especially suitable because it does not make any serious normality assumptions, but can be powerful with a smaller sample size than covariance-based SEM. Also, PLS-SEM is highly adapted to predictive modelling and theory formulation that supports the goal of the study to assess student engagement as a policy implication of the institutional service quality.

The analysis was conducted in two stages:

- **Measurement model assessment**, evaluating reliability and validity through factor loadings, composite reliability, Cronbach’s alpha, and Average Variance Extracted (AVE).
- **Structural model assessment**, examining path coefficients (β), t-values, and significance levels using bootstrapping procedures.

Hypotheses H1–H5 were tested to determine the extent to which service quality dimensions significantly influence student engagement.

The analytical approach is consistent with previous empirical studies in higher education and services marketing (Cavallone et al., 2022; Teeroovengadum et al., 2016; Weerasinghe & Fernando, 2018).

4.5.1. Measurement Model Assessment

As shown in the Table 1 The measurement model was evaluated in terms of reliability and validity. The results indicate that all constructs demonstrate strong internal consistency, with Cronbach’s alpha and composite reliability values exceeding the recommended threshold of 0.70. Composite reliability values ranged from 0.893 to 0.948, confirming high reliability of the measurement scales.

Convergent validity was established as factor loadings were predominantly above 0.70 and Average Variance Extracted (AVE) values exceeded the threshold of 0.50. Although one item under student engagement exhibited a slightly lower loading, it was retained due to its theoretical relevance.

Discriminant validity was confirmed using both HTMT and Fornell–Larcker criteria. HTMT values were within acceptable limits (<0.90), while diagonal values in the Fornell–Larcker matrix were greater than inter-construct correlations, confirming that constructs are empirically distinct.

Table 1: Measurement Model Results

Latent Variables	Indicators	Loadings	Composite reliability (rho a)	Composite reliability (rho c)	Cronbach's Alpha	AVE
	ASQ1	0.901	0.937	0.948	0.932	0.786
	ASQ2	0.897				
	ASQ3	0.87				
	ASQ4	0.877				
	ASQ5	0.886				
	CEQ1	0.905	0.910	0.928	0.896	0.764
	CEQ2	0.927				
	CEQ3	0.861				
	CEQ4	0.798				
	PEQ1	0.904	0.880	0.919	0.868	0.791
	PEQ2	0.91				
	PEQ3	0.853				
	SESQ1	0.764	0.918	0.914	0.876	0.726
	SESQ2	0.854				
	SESQ3	0.911				

SESQ4	0.873				
TQ1	0.849				
TQ2	0.909	0.881	0.924	0.876	0.802
TQ3	0.927				
SE1	0.777				
SE2	0.881				
SE3	0.898	0.876	0.893	0.848	0.631
SE4	0.813				
SE5	0.553				

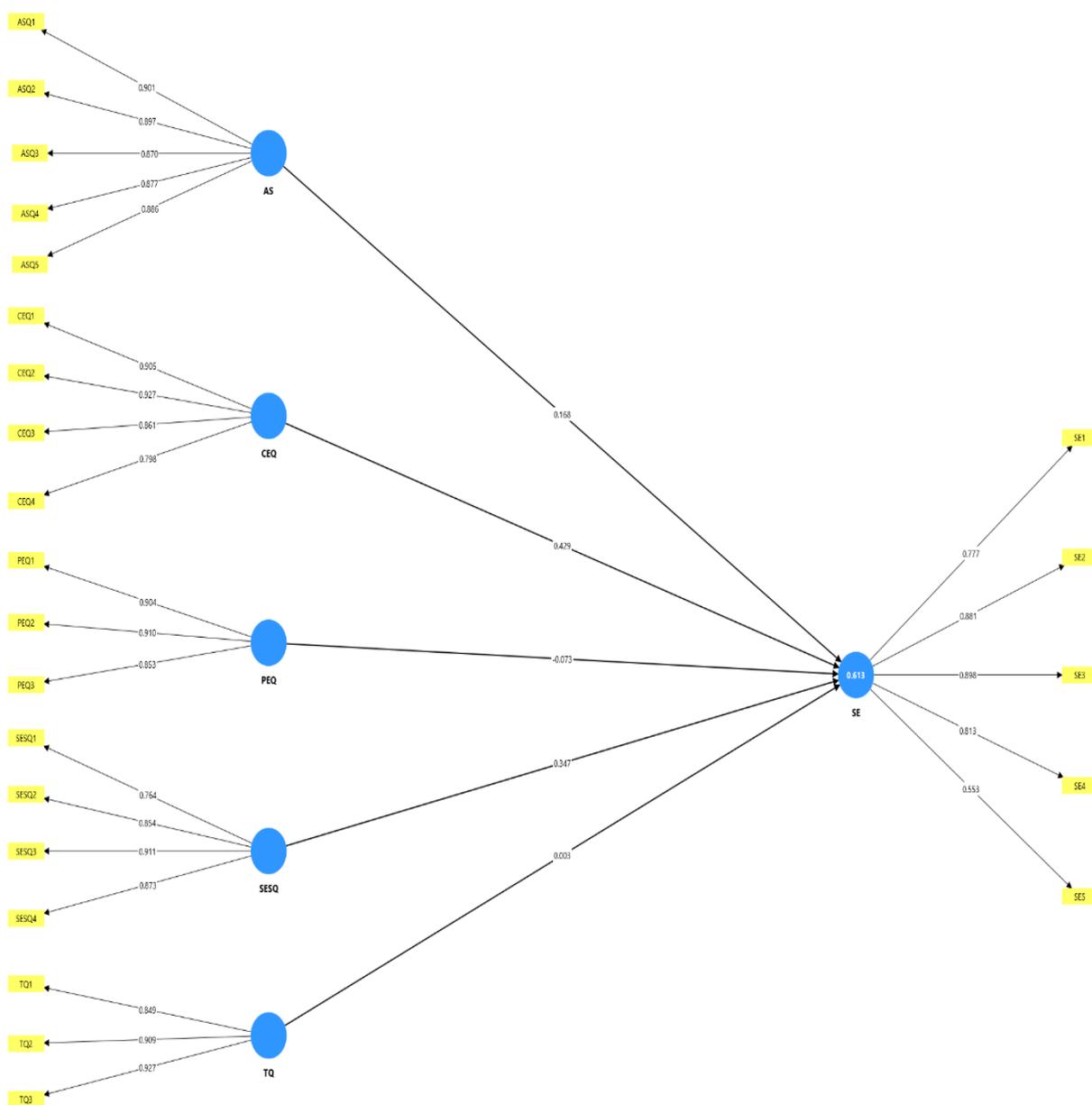


Figure 2: Measurement Model

The structural model demonstrates substantial explanatory power, with an R² value of 0.613, indicating that 61.3% of the variance in student engagement is explained by the five service quality dimensions. The model also shows strong predictive relevance (Q² = 0.571) and acceptable model fit (RMSE = 0.665).

4.5.2. Hypothesis Testing

The results of hypothesis testing reveal that three out of five hypothesised relationships are supported.(see table 4)

Core educational quality has the strongest positive effect on student engagement ($\beta = 0.429$, $p < 0.001$), highlighting the central role of teaching effectiveness, curriculum relevance, and faculty competence in driving engagement. This finding reinforces existing literature that positions academic experience as the primary determinant of student involvement.

Support and extracurricular services also show a significant positive impact on engagement ($\beta = 0.347$, $p < 0.05$), indicating the importance of mentoring, counselling, and co-curricular activities in fostering emotional and behavioural engagement.

Administrative support demonstrates a positive and statistically significant relationship with student engagement ($\beta = 0.168$, $p < 0.05$), suggesting that efficient governance, transparency, and responsiveness contribute to enhancing student experience, albeit to a lesser extent compared to academic and support dimensions.

However, physical environment quality does not exhibit a significant relationship with student engagement ($\beta = -0.07$, $p > 0.05$). This suggests that while infrastructure and facilities are important, they may not directly influence engagement in the presence of strong academic and support systems.

Similarly, the transformative quality does not show a significant impact on engagement ($\beta = 0.003$, $p > 0.05$). This finding indicates that students may not immediately perceive or associate long-term transformational outcomes with their current engagement levels.

Table 2: Discriminant Validity HTMT

	AS	CEQ	PEQ	SE	SESQ	TQ
AS						
CEQ	0.822					
PEQ	0.791	0.837				
SE	0.711	0.799	0.687			
SESQ	0.623	0.701	0.847	0.733		
TQ	0.887	0.874	0.845	0.765	0.783	

Table 3: Discriminant Validity Fornell and Larcker Criterion

	AS	CEQ	PEQ	SE	SESQ	TQ
AS	0.886					
CEQ	0.754	0.874				
PEQ	0.714	0.74	0.889			
SE	0.649	0.731	0.628	0.794		

SESQ	0.599	0.655	0.755	0.676	0.852	
TQ	0.801	0.773	0.741	0.66	0.709	0.896

Table 4: Structural Model Results

	<i>Hypothesized Paths</i>	β	<i>t-Value</i>	<i>p-Value</i>	<i>VIF</i>	<i>Variance Explained (R²)</i>	<i>R² Adjusted</i>	<i>Predictive Relevance (Q²)</i>	<i>RMS E</i>	<i>Decision</i>
<i>H</i> 1	ASQ→SE	0.168	1.944	0.042	3.343					Supported
<i>H</i> 2	CEQ→SE	0.429	3.724	0.000	3.196	0.613	0.604	0.571	0.665	Supported
<i>H</i> 3	PEQ→SE	-0.07	0.722	0.470	3.402					Not Supported
<i>H</i> 4	SESQ→SE	0.347	2.177	0.030	2.667					Supported
<i>H</i> 5	TQ→SE	0.003	0.026	0.979	4.008					Not Supported

4.5.3. Discussion

The findings support the reconceptualization of student engagement as a policy outcome of institutional service quality. Among all dimensions, core educational quality emerges as the most influential factor, aligning with policy priorities that emphasise teaching excellence and curriculum relevance.

The significance of support services further highlights the role of institutional mechanisms in promoting inclusiveness, well-being, and holistic development, which are key objectives of higher education policy frameworks.

Interestingly, the non-significant effects of physical environment and transformative quality provide important insights. These results suggest that students prioritise immediate academic and support experiences over infrastructural and long-term developmental outcomes when forming engagement perceptions.

Overall, the findings demonstrate that not all quality dimensions contribute equally to engagement, thereby refining existing service quality models and offering a more nuanced understanding of how policy-driven institutional mechanisms translate into student engagement outcomes.

5. Conclusion

This study contributes to the growing body of literature by reframing student engagement as a policy outcome emerging from institutional service quality within higher education. Drawing from services marketing and public policy perspectives, the study empirically demonstrates that service quality dimensions function as critical mechanisms through which institutional governance and policy objectives are translated into meaningful student experiences.

The findings reveal that core educational quality is the most significant driver of student engagement, followed by support and extracurricular services and administrative support. These results highlight the centrality of teaching effectiveness, student support systems, and governance structures in enhancing engagement outcomes.

In contrast, physical environment and transformative quality were found to have no significant direct impact on engagement. This suggests that students may prioritise immediate academic and institutional experiences over infrastructural provisions and long-term transformational outcomes when evaluating their level of engagement.

The study offers important theoretical implications by integrating service quality and student engagement within a policy-oriented framework. It advances the understanding of higher education institutions as policy-governed service systems where engagement serves as an indicator of institutional effectiveness and public value creation.

From a practical perspective, the findings suggest that policymakers and institutional leaders should prioritise strengthening academic quality, enhancing student support services, and improving administrative responsiveness to foster higher levels of student engagement.

Overall, the study provides a comprehensive and policy-relevant framework for understanding how institutional quality dimensions shape student engagement, thereby contributing to improved governance, accountability, and performance in higher education systems.

6. Implications

6.1. Theoretical Implication

This study makes several important theoretical contributions to the literature on higher education, services marketing, and student engagement. First, it extends the conceptualisation of student engagement by repositioning it as a policy outcome rather than merely a pedagogical or psychological construct. While prior studies have predominantly examined engagement as a student-driven phenomenon, this study demonstrates that engagement emerges as a consequence of institutional service quality mechanisms operating within policy-governed higher education systems.

Second, the study contributes to service quality theory in higher education by empirically validating the multidimensional HESQUAL framework in relation to student engagement outcomes. The findings reveal that not all service quality dimensions exert equal influence, thereby refining existing models that often assume uniform effects across dimensions. In particular, core educational quality and support services emerge as dominant drivers, reinforcing the centrality of academic and relational dimensions in shaping engagement.

Third, the study integrates services marketing and public policy perspectives, offering a novel interdisciplinary framework. By positioning service quality dimensions as policy

implementation mechanisms and student engagement as a public value indicator, the study bridges a critical gap in existing literature that treats these domains in isolation.

Finally, the non-significant relationships of physical environment and transformative quality provide important theoretical insights. These findings suggest that engagement is more strongly influenced by immediate, experience-based service interactions rather than long-term developmental outcomes, thereby adding nuance to engagement theory and opening avenues for further research on indirect and mediated relationships.

6.2. Managerial/Policy Implication

The findings of this study offer several important implications for institutional leaders, policymakers, and accreditation bodies in higher education.

First, the strong influence of core educational quality indicates that institutions must prioritise **teaching effectiveness, curriculum relevance, and faculty competence**. Investments in pedagogical innovation, faculty development, and outcome-based education are likely to yield significant improvements in student engagement.

Second, the significant role of support and extracurricular services highlights the importance of **holistic student development mechanisms**, including mentoring, counselling, career services, and co-curricular activities. Institutions should strengthen these support systems to enhance emotional and behavioural engagement, particularly in policy contexts emphasising inclusiveness and well-being.

Third, administrative support quality, though comparatively weaker, still significantly impacts engagement. This underscores the need for **efficient, transparent, and student-centric governance systems**. Simplifying administrative processes, improving responsiveness, and leveraging digital systems can enhance institutional trust and engagement.

Interestingly, the non-significant impact of physical environment suggests that infrastructure investments alone may not directly enhance engagement unless complemented by strong academic and support systems. Similarly, the lack of significance of transformative quality indicates that institutions may need to better **communicate and operationalise transformative outcomes**, making them more visible and relatable to students.

From a policy perspective, the findings suggest that student engagement can serve as a **measurable indicator of institutional performance and policy effectiveness**, enabling regulators and accreditation bodies to evaluate how well institutions translate policy mandates into student experiences.

7. Limitations and Future Research

Although the study contains some useful information, there are some limitations that limit its usage and give the future research directions.

To start with, the research is conducted using rather a small sample size ($n = 75$), which can potentially restrict the statistical power and generalisability of results. Even though Partial Least Squares Structural Equation Modelling (PLS-SEM) can be applied in small samples, a future study should attempt to test the put forward model with larger and more heterogeneous samples to increase strength and external validity. Even though PLS-SEM fits well with small samples, future research needs to confirm the results with bigger samples and covariance-based ways of SEM.

Second, the research design employed in the study is cross-sectional research design, which limits the determination of causal correlations between service quality dimensions and student engagement. Longitudinal designs can be used in future research to ensure that the relationships are studied across time.

Third, the study sample is management students in selected Indian institutions of higher learning. Although this gives it a certain depth of context, the results might not be applicable in other academic fields, other types of institutions or geographical areas. The scope of future researches can be extended to different student groups with diverse academic backgrounds, and comparison across regions or international levels.

Fourth, this model is capable of explaining a significant percentage of the variability in student engagement ($R^2 = 0.613$), but other covariate influences might also increase the explanatory capacity of this model which includes student motivation, institutional culture, digital learning environments and AI integration. Future studies ought to include moderating and mediating variables in order to have a more elaborate framework.

Fifth, the insignificant influences of physical environment and transformative quality imply the potential of either indirect or mediated relationship. Further research can examine how these dimensions affect the engagement using variables like satisfaction, perceived value or trust of the institution.

Lastly, the research has used self-reported information, which is prone to response bias. Future studies can use the mixed method techniques to have a more in-depth insight into student engagement as a policy outcome.

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