



The Influence of Perceived Service Quality on Customer Loyalty: A Study of the Mediating Role of Customer Trust in Higher Vocational Colleges Sports Clubs in Shijiazhuang City, China

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Abstract: This study investigates the impact of perceived service quality on customer loyalty in sports clubs of higher vocational colleges in Shijiazhuang, China, with customer trust as the mediating variable. A quantitative approach was used, and structured questionnaires were given to 384 full-time campus sports club members. Data were analyzed with SPSS and Smart PLS. The findings show that perceived service quality indirectly affects customer loyalty via customer trust, and empathy, reliability, and tangibles are key for trust-building. Responsiveness and assurance have no significant impact on trust or loyalty. Customer engagement positively affects trust but doesn't directly lead to loyalty without the mediating effect of trust. These results offer theoretical insights for service quality research in educational sports and practical suggestions for campus sports club managers to improve member retention and competitive advantage.

Keywords: perceived service quality, customer trust, customer loyalty

1. Introduction

In competitive higher vocational college campus sports clubs, customer loyalty is crucial for sustainable development, ensuring stable membership and positive word-of-mouth. Parasuraman et al. (1988) proposed the SERVQUAL model, with tangibles, reliability, responsiveness, assurance, and empathy as core dimensions affecting customer loyalty. In China, campus sports clubs are important for students' development, but retaining student loyalty is difficult because of inadequate facilities. Perceived service quality impacts behavioral intentions, satisfaction, and loyalty in service management. In sports service, students evaluate quality based on multiple factors. Research shows that psychological factors, especially customer trust, often mediate the relationship between service quality and loyalty, increasing students' willingness to stay in sports clubs. However, there has been little research on the interaction between perceived service quality and trust in China's vocational college sports clubs. Given the unique resource constraints and student engagement in vocational institutions, it's necessary to explore how service perceptions lead to loyalty. This study fills the gap by investigating the effect of perceived service quality on customer loyalty with customer trust as the mediator and extends the SERVQUAL model by adding customer engagement to better understand service quality in campus sports clubs.

2. Literature Review and Theoretical Foundations

2.1 Historical Background of Campus Sports Clubs

Campus sports clubs originated in Western universities in the 19th century, with Yale University's boat club founded in 1843 as one of the earliest examples. Introduced to China in the late 19th century through Christian missionaries, these clubs gradually spread across universities and were further promoted by the government after 1949 (Guo et al., 2013; Tsai & Zhou, 2016). [1-2] Today, Chinese universities increasingly emphasize physical education integration into curricula and sports clubs, but retaining customer loyalty remains challenging due to issues such as uneven service quality and inadequate resource allocation.

2.2 Core Theories and Conceptual Model

This study is supported by three key theoretical frameworks:

SERVQUAL Model: Developed by Berry et al. (1983), it measures service quality through five dimensions (tangibles, reliability, responsiveness, assurance, empathy) and is extended here with customer engagement as an additional variable. [3]

Commitment-Trust Theory: Proposed by Morgan and Hunt (1994), it highlights trust and commitment as key drivers of long-term customer relationships. [4]

Relationship Marketing Theory: Formed by Berry (1983), it focuses on attracting, maintaining, and enhancing customer relationships based on mutual benefits. [3]

The conceptual model posits that six independent variables (tangibles, reliability, responsiveness, assurance, empathy, customer engagement) influence customer loyalty via the mediating variable of customer trust. This model aims to uncover how service quality shapes loyalty in campus sports clubs.

2.3 Hypothesis Development

Based on the theoretical framework and literature review, eight hypotheses are proposed:

①Tangibles have a positive impact on customer loyalty (H1a) and customer trust (H1b). ②Reliability has a positive impact on customer loyalty (H2a) and customer trust (H2b). ③Responsiveness has a positive impact on customer loyalty (H3a) and customer trust (H3b). ④Empathy has a positive impact on customer loyalty (H4a) and customer trust (H4b). ⑤Assurance has a positive impact on customer loyalty (H5a) and customer trust (H5b). ⑥Customer engagement has a positive impact on customer loyalty (H6a) and customer trust (H6b). ⑦Customer trust mediates the relationship between engagement and customer loyalty (H7a). ⑧High customer trust has a positive impact on customer loyalty (H7b).

3. Research Methodology

3.1 Research Design and Sampling

A quantitative research approach was used, collecting data via structured questionnaires. The target population is full-time students in campus sports clubs from higher vocational colleges in Shijiazhuang City. Stratified sampling was applied, yielding 384 valid samples (47.6% freshmen, 68% males). The sample covers various academic majors, mainly Sports Education (62.2%), Nursing (26.8%), Mechanical Engineering (9.1%), and Marketing (1.9%).

3.2 Instrumentation and Quality Assessment

The questionnaire, adapted from the SERVQUAL model (27 items), measured eight constructs: tangibles, reliability, responsiveness, assurance, empathy, customer engagement, customer trust, and customer loyalty. Its items were from existing validated scales. Reliability tests showed Cronbach's α values from 0.749 to 0.853, indicating high internal consistency, and validity tests revealed KMO values between 0.709 and 0.895, confirming the questionnaire's validity.

3.3 Data Collection and Analysis

Data was collected through online surveys from April to May 2025. SPSS was used for descriptive statistics and correlation analysis, while Smart PLS (PLS-SEM) was employed for hypothesis testing and mediation effect analysis. The analysis included assessments of the measurement model (reliability, convergent validity, discriminant validity) and structural model (path coefficients, R^2 , effect sizes, predictive relevance).

4. Key Findings

4.1 Hypothesis Testing Results

Accepted Hypotheses:

Tangibles positively impact customer trust (H1b, $\beta=0.186$, $p<0.001$) but not customer loyalty (H1a, $p=0.948$).

Reliability positively impacts both customer trust (H2b, $\beta=0.199$, $p<0.001$) and customer loyalty (H2a, $\beta=0.134$, $p=0.013$).

Empathy positively impacts both customer trust (H4b, $\beta=0.327$, $p<0.001$) and customer loyalty (H4a, $\beta=0.210$, $p<0.001$).

Customer engagement positively impacts customer trust (H6b, $\beta=0.210$, $p<0.001$) but not customer loyalty (H6a, $p=0.224$).

Customer trust mediates the relationship between engagement and loyalty (H7a, $\beta=0.488$, $p<0.001$).

Customer trust positively impacts customer loyalty (H7b, $\beta=0.186$, $p<0.001$).

Rejected Hypotheses:

Responsiveness has no significant impact on customer loyalty (H3a, $p=0.141$) or customer trust (H3b, $p=0.082$).

Assurance has no significant impact on customer loyalty (H5a, $p=0.910$) or customer trust (H5b, $p=0.168$).

4.2 Model Explanatory Power

The structural model results show that customer trust ($R^2=0.61$) and customer loyalty ($R^2=0.47$) have moderate to strong explanatory power. Empathy and reliability emerged as the most influential drivers of trust, with large effect sizes ($f^2>0.35$). Tangibles showed a medium effect on trust ($f^2\approx 0.15$), while other paths had small or negligible effects. The model

also demonstrated good predictive relevance ($Q^2 > 0$ for both trust and loyalty).

5. Conclusions and Implications

Perceived service quality indirectly affects loyalty via customers' trust in campus sports clubs. Empathy, reliability, and tangibility are core for building trust, while responsiveness and security have a lower impact. Customer participation can enhance trust, and without trust, there's no direct loyalty effect. Trust strongly predicts loyalty. Club managers should focus on strengthening employee empathy and reliability training, optimizing tangible facilities, enhancing participation and trust through interactive activities and personalized communication, and addressing service transparency and project flexibility to maintain long-term trust. Policy makers can use research findings to develop a quality framework and funding model for student-centered sports services. This cross-sectional study is limited to vocational colleges in Shijiazhuang and lacks universality. In the future, the research area can be expanded by using longitudinal or mixed research designs, including variables like perceived value and digital experience, and combining interviews and focus group methods to explore students' service perception deeply.

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