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The Influence of Service Quality, Perceived Value, and Trust on Customer Satisfaction and Customer Loyalty: Evidence from Private Universities

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Abstract

The increasing competition among private universities has intensified the need to understand factors that influence student satisfaction and loyalty. In higher education institutions, students are often regarded as customers who evaluate the quality of educational services and decide whether to maintain a long-term relationship with the institution. Therefore, identifying key determinants of customer satisfaction and loyalty is essential for improving institutional competitiveness and sustainability. This study aims to examine the relationships among service quality, perceived value, trust, customer satisfaction, and customer loyalty in the context of private universities. This research employs a quantitative research approach using a survey method. Data were collected from students enrolled in private universities through structured questionnaires. The measurement items were developed based on established theories and previous studies related to service marketing and customer relationship management. The collected data were analyzed using Structural Equation Modeling (SEM) to examine both direct and indirect relationships among the variables in the proposed conceptual framework. The findings indicate that service quality, perceived value, and trust significantly influence customer satisfaction. In addition, service quality, perceived value, and trust also have direct effects on customer loyalty. Customer satisfaction is found to be a significant determinant of customer loyalty, indicating that satisfied students are more likely to remain loyal to their universities and recommend the institution to others. These results highlight the important role of maintaining high service standards, delivering strong perceived value, and building trust in order to enhance student satisfaction and loyalty. The study contributes to the literature on service marketing in higher education by providing empirical evidence of the relationships among key service-related factors and student loyalty. The findings offer practical implications for university administrators and policymakers in improving service quality and strengthening long-term relationships with students. Future research may expand the model by incorporating additional variables and exploring different educational contexts.

Keywords: Service Quality, Perceived Value, Trust, Customer Satisfaction, Customer Loyalty

1. Introduction

1.1 Background and Importance of the Problem

Higher education institutions around the world are experiencing rapid transformation due to globalization, increased competition, technological advancement, and rising expectations from students as primary stakeholders. Universities are no longer perceived solely as educational institutions but are increasingly viewed as service organizations that must provide high-quality educational and support services to maintain their competitiveness and sustainability. In this context, the concepts of service quality, perceived value, trust, and customer satisfaction have become critical factors influencing student loyalty and long-term institutional success (Kotler and Keller, 2016; Parasuraman et al., 1988). Private universities, in particular, face significant pressure to maintain high levels of service quality and student satisfaction because they operate in a competitive environment where students have multiple choices regarding educational institutions. Unlike public universities that often receive substantial government support, private universities rely heavily on tuition fees and student enrollment for financial sustainability. Consequently, understanding the factors that influence student satisfaction and loyalty has become an essential research focus in higher education management (Helgesen and Nettet, 2007).

Customer satisfaction in the higher education context refers to the degree to which students' expectations regarding academic services, administrative support, campus facilities, and overall educational experiences are fulfilled. When students perceive that their expectations are met or exceeded, they are more likely to develop positive attitudes toward the institution, resulting in higher levels of loyalty and advocacy behaviors such as recommending the university to others (Oliver, 1999). Therefore, customer satisfaction plays a crucial role in determining students' continued engagement with the institution and their willingness to maintain long-term relationships with it. In addition to satisfaction, service quality has been widely recognized as a major determinant of students' perceptions of higher education institutions. Service quality encompasses multiple dimensions, including reliability, responsiveness, assurance, empathy, and tangibles, which together represent the ability of institutions to consistently deliver high-quality educational services (Parasuraman et al., 1988). Universities that demonstrate reliability in teaching quality, responsiveness in addressing student needs, assurance through professional competence, empathy toward individual student concerns, and tangible facilities such as modern classrooms and laboratories are more likely to generate positive student experiences. These experiences, in turn, contribute to higher levels of satisfaction and loyalty.

Another important factor influencing student satisfaction is perceived value. Perceived value refers to the overall evaluation made by students regarding the benefits they receive from educational services relative to the costs they incur, including tuition fees, time investment, and effort required for academic study (Zeithaml, 1988). When students perceive that the benefits of their education outweigh the costs, they are more likely to feel satisfied with their university experience. Perceived value in higher education may include emotional value, social value, functional value, and epistemic value, all of which shape students' perceptions of institutional effectiveness and relevance. Trust is also considered a significant factor in building long-term relationships between universities and students. Trust refers to students' belief that the institution will act in their best interests, maintain transparency in its processes, and deliver promised educational outcomes. When universities demonstrate dependability, integrity, and benevolence in their policies and interactions, students are more likely to develop trust in the institution. This trust strengthens students' emotional connection with the university and contributes to higher satisfaction and loyalty levels (Morgan and Hunt, 1994).

In recent years, higher education in China has expanded rapidly, particularly in the private university sector. The increasing number of private institutions has intensified competition among universities,

making it necessary for institutions to differentiate themselves through superior service quality and student-centered management strategies. Yunnan Province, located in southwestern China, has witnessed significant growth in private higher education institutions that aim to meet the educational needs of a diverse and expanding student population. However, many private universities still face challenges in maintaining consistent service quality and improving students' perceptions of value and satisfaction.

Despite the growing importance of student satisfaction in higher education management, there remains a need for empirical research that examines the causal relationships between service quality, perceived value, trust, customer satisfaction, and customer loyalty within the context of private universities. Understanding these relationships can help university administrators develop effective strategies to improve educational services, enhance student experiences, and strengthen institutional competitiveness. Therefore, this study focuses on analyzing the causal factors influencing customer satisfaction and customer loyalty among students at private universities in Yunnan, China. By examining key variables such as service quality, perceived value, and trust, this research aims to develop a comprehensive model explaining how these factors contribute to student satisfaction and loyalty. The findings of this study are expected to provide valuable insights for university administrators, policymakers, and researchers in improving the quality and effectiveness of higher education services.

1.2 Research Question

Based on the background and significance of the problem, this study seeks to answer the following research questions:

- 1) What are the causal factors influencing customer satisfaction among students at private universities in Yunnan, China?
- 2) How do service quality, perceived value, and trust influence customer satisfaction among students in private universities?
- 3) How does customer satisfaction affect customer loyalty among students at private universities in Yunnan, China?
- 4) What is the structural relationship among service quality, perceived value, trust, customer satisfaction, and customer loyalty in the context of private higher education institutions?

These research questions aim to provide a deeper understanding of the mechanisms through which different service-related factors contribute to students' satisfaction and their loyalty toward private universities.

1.3 Research Objective

In order to address the research questions and provide a systematic analysis of the factors influencing student satisfaction and loyalty, this study establishes the following research objectives:

- 1) To examine the causal factors influencing customer satisfaction among students at private universities in Yunnan, China.
- 2) To analyze the influence of service quality, perceived value, and trust on customer satisfaction among students at private universities in Yunnan, China.

3) To develop and test a structural model illustrating the relationships among service quality, perceived value, trust, customer satisfaction, and customer loyalty in private universities in Yunnan, China.

The achievement of these objectives will contribute to both theoretical and practical knowledge in the field of higher education management. From a theoretical perspective, the study will extend existing literature on service quality and customer relationship management in higher education. From a practical perspective, the findings will help university administrators design effective strategies to improve service delivery, strengthen student satisfaction, and enhance long-term loyalty among students.

2. Literature Review

2.1 Related Concepts and Theories

2.1.1 Service Quality

Service quality is one of the most important constructs in service management and marketing research. It refers to the overall evaluation of a service by customers based on the comparison between their expectations and the actual performance of the service received. According to Parasuraman, Zeithaml, and Berry (1988), service quality is defined as the gap between customer expectations and perceptions of service performance. When the perceived service exceeds expectations, customers perceive the service as high quality; however, when service performance falls short of expectations, customers perceive the service as low quality. The SERVQUAL model developed by Parasuraman et al. (1988) is one of the most widely used frameworks for measuring service quality. The model consists of five key dimensions: reliability, responsiveness, assurance, empathy, and tangibles. Reliability refers to the ability of the service provider to perform the promised service dependably and accurately. Responsiveness relates to the willingness of employees to help customers and provide prompt service. Assurance involves the knowledge and courtesy of employees as well as their ability to convey trust and confidence. Empathy refers to the caring and individualized attention provided to customers. Tangibles include physical facilities, equipment, and the appearance of personnel. In the context of higher education, service quality can be applied to various aspects such as teaching quality, administrative services, campus facilities, academic support services, and communication between faculty members and students. Universities that provide reliable academic services, responsive administrative support, and well-maintained facilities are more likely to create positive perceptions among students. Previous studies have shown that service quality has a significant influence on students' perceptions, satisfaction, and loyalty toward educational institutions (Helgesen and Nettet, 2007). Moreover, service quality has been recognized as a key factor influencing customer satisfaction and long-term relationship development. Institutions that maintain high service quality are more capable of meeting students' expectations and building a positive reputation. Therefore, service quality plays a crucial role in determining students' perceptions of institutional performance and their overall satisfaction with educational services (Kotler and Keller, 2016).

2.1.2 Perceived Value

Perceived value is another important concept widely discussed in marketing and consumer behavior research. It refers to the customer's overall assessment of the benefits received from a product or service relative to the costs incurred in obtaining it. Zeithaml (1988) defined perceived value as the consumer's evaluation of the utility of a product or service based on perceptions of what is received and what is given. In other words, perceived value represents the trade-off between benefits and sacrifices. Perceived value is often considered a multidimensional construct that includes several components such as functional value, emotional value, social value, and epistemic value. Functional value refers to the practical benefits and usefulness of a service. Emotional value refers to the feelings or affective states generated by the service experience. Social value relates to the enhancement of social status or social approval obtained from using the service, while epistemic value refers to the novelty or knowledge gained from the experience (Sweeney and Soutar, 2001). In the context of higher education, perceived value may include the quality of education received, the career opportunities provided by the institution, the reputation of the university, and the overall learning experience. Students often evaluate whether the tuition fees and effort invested in their education are justified by the benefits they obtain. When students perceive that the benefits outweigh the costs, they are more likely to develop positive attitudes toward the university and experience higher satisfaction levels. Previous studies have found that perceived value has a direct and positive influence on customer satisfaction and behavioral intentions. Students who perceive greater value from their educational experience are more likely to feel satisfied and develop loyalty toward their institution (Cronin et al., 2000). Therefore, perceived value is considered an essential determinant of student satisfaction in higher education.

2.1.3 Trust

Trust plays a fundamental role in relationship marketing and long-term customer relationships. Trust refers to the belief that a service provider is reliable, honest, and capable of fulfilling its promises. According to Morgan and Hunt (1994), trust is defined as the confidence that one party has in the reliability and integrity of another party in a relationship. Trust reduces uncertainty and strengthens the relationship between customers and service providers. In service contexts, trust is particularly important because services are intangible and often involve high levels of uncertainty. Customers must rely on the credibility and competence of service providers when making decisions. In higher education, students invest significant time, money, and effort in their education, making trust an essential factor influencing their perceptions and satisfaction. Trust in universities may be developed through transparent communication, consistent academic quality, ethical management practices, and reliable administrative services. When students believe that the university is committed to their academic success and personal development, they are more likely to trust the institution. This trust enhances students' satisfaction and strengthens their emotional attachment to the university. Research has indicated that trust significantly influences customer satisfaction and loyalty. Students who trust their institution are more likely to remain committed to the university and recommend it to others. Therefore, trust is considered a critical factor in maintaining long-term relationships between universities and students (Morgan and Hunt, 1994).

2.1.4 Customer Satisfaction

Customer satisfaction refers to the overall evaluation of a customer regarding the experience with a product or service. According to Oliver (1999), satisfaction is defined as a pleasurable fulfillment response that occurs when customers perceive that a service meets or exceeds their expectations. Satisfaction is therefore the result of the comparison between expected performance and perceived performance. In higher education, student satisfaction is a key indicator of institutional effectiveness. Students evaluate various aspects of their educational experience, including teaching

quality, learning environment, administrative support, and campus facilities. When these aspects meet or exceed students' expectations, satisfaction increases. Customer satisfaction plays a crucial role in influencing future behavioral intentions, such as continued enrollment, positive word-of-mouth communication, and recommendations to prospective students. High levels of satisfaction also enhance the reputation of educational institutions and contribute to long-term sustainability. Several studies have shown that satisfaction acts as a mediator between service quality, perceived value, trust, and customer loyalty. This means that improvements in service quality, value perception, and trust can lead to higher satisfaction, which in turn strengthens loyalty (Cronin et al., 2000).

2.1.5 Customer Loyalty

Customer loyalty refers to a customer's commitment to repurchase or continue using a service consistently in the future despite the presence of alternative options. According to Oliver (1999), loyalty represents a deeply held commitment to re-buy or re-patronize a preferred product or service. Loyal customers are more likely to recommend the service to others and maintain long-term relationships with the service provider. In higher education, student loyalty may be reflected through behaviors such as recommending the university to prospective students, participating in alumni activities, and maintaining a positive relationship with the institution after graduation. Loyal students often act as ambassadors for the university, contributing to the institution's reputation and student recruitment. Customer loyalty is strongly influenced by satisfaction, trust, and perceived value. When students experience high levels of satisfaction and trust in their institution, they are more likely to develop loyalty toward the university. Therefore, universities must focus on improving service quality and student experiences to strengthen loyalty among students.

2.2 Literature Surveys

Previous studies have extensively examined the relationships among service quality, perceived value, trust, customer satisfaction, and customer loyalty in various service industries, including higher education.

Parasuraman et al. (1988) developed the SERVQUAL model to measure service quality across different service contexts. Their study highlighted the importance of reliability, responsiveness, assurance, empathy, and tangibles in determining customers' perceptions of service quality. This model has been widely applied in education research to evaluate the quality of services provided by universities.

Helgesen and Nettet (2007) investigated the relationship between service quality, satisfaction, and loyalty among university students. Their findings indicated that service quality significantly influences student satisfaction, which in turn affects student loyalty. The study emphasized that universities must continuously improve their academic and administrative services to maintain student satisfaction.

Cronin, Brady, and Hult (2000) examined the relationships among service quality, perceived value, satisfaction, and behavioral intentions. Their findings revealed that perceived value and service quality significantly influence customer satisfaction, which subsequently affects customer loyalty. The study demonstrated that customer satisfaction plays a mediating role in the relationship between service quality and loyalty.

Morgan and Hunt (1994) proposed the commitment-trust theory of relationship marketing, which emphasizes the importance of trust in maintaining long-term relationships between

organizations and customers. Their study highlighted that trust significantly influences relationship commitment and loyalty. In higher education, trust between students and institutions contributes to stronger relationships and greater student loyalty.

Overall, previous research suggests that service quality, perceived value, and trust are key determinants of customer satisfaction and loyalty. However, empirical studies examining these relationships in the context of private universities in Yunnan, China remain limited. Therefore, this study aims to fill this research gap by examining the structural relationships among these variables.

2.3 Conceptual Framework

Based on the theoretical foundations and previous empirical studies, this research proposes a conceptual framework that examines the relationships among service quality, perceived value, trust, customer satisfaction, and customer loyalty.

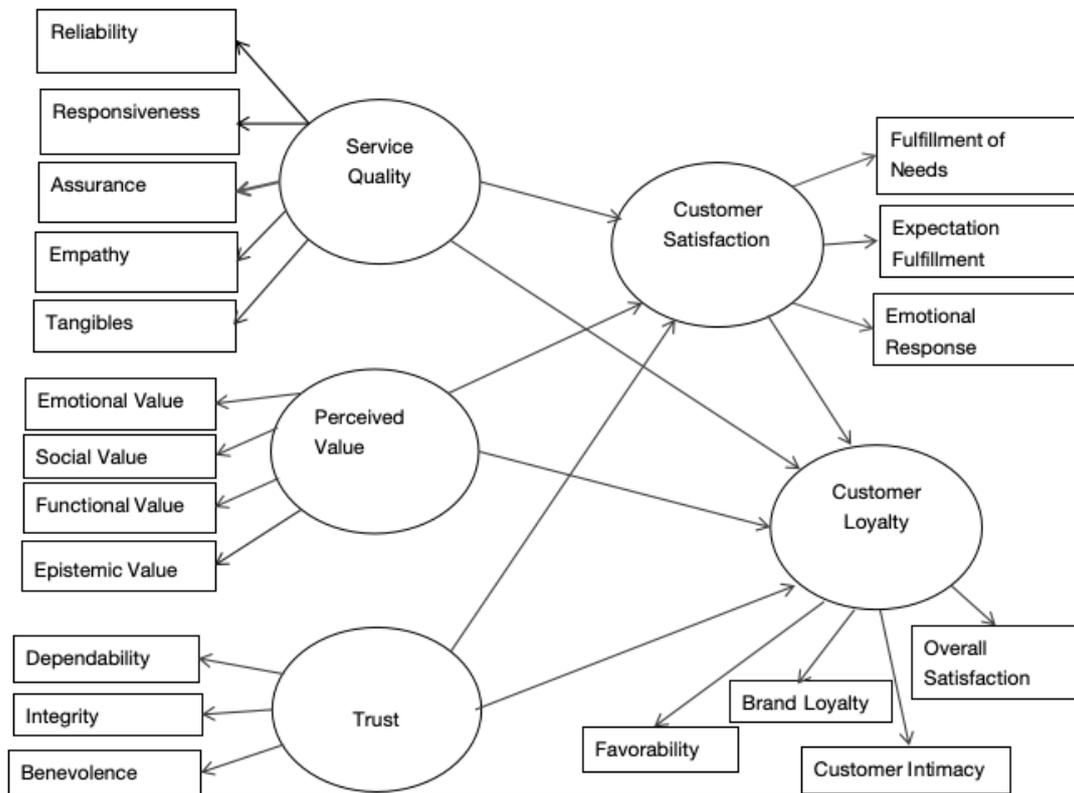


Figure 1 Research Framework

This framework provides a structured approach to analyzing the causal relationships among these variables in the context of private universities.

2.4 Research Hypotheses

Based on the conceptual framework and previous literature, the following hypotheses are proposed in this study:

Hypothesis 1 Service quality has a direct effect on customer satisfaction.

Hypothesis 2 Service quality has a direct effect on customer loyalty.

Hypothesis 3 Perceived value has a direct effect on customer satisfaction.

Hypothesis 4 Perceived value has a direct effect on customer loyalty.

Hypothesis 5 Trust has a direct effect on customer satisfaction.

Hypothesis 6 Trust has a direct effect on customer loyalty.

Hypothesis 7 Customer satisfaction has a direct effect on customer loyalty.

3. Research Methodology

3.1 Research Design

This study employed a quantitative research approach to examine the causal relationships among service quality, perceived value, trust, customer satisfaction, and customer loyalty among students at private universities in Yunnan, China. Quantitative research is appropriate for this study because it allows the researcher to systematically measure variables and analyze the relationships among them using statistical techniques. According to Creswell (2014), quantitative research enables researchers to test theoretical models and hypotheses by collecting numerical data from a large sample and analyzing the data using statistical procedures. The research design of this study is explanatory research, which aims to investigate the causal relationships among variables. Explanatory research is particularly useful when the objective is to test theoretical assumptions and identify the direct and indirect effects among variables within a conceptual framework. In this study, explanatory research is used to test the hypothesized relationships among service quality, perceived value, trust, customer satisfaction, and customer loyalty.

The study also adopts a cross-sectional survey design, in which data are collected from respondents at a single point in time. Cross-sectional surveys are widely used in social science research because they allow researchers to collect information from a large number of participants efficiently (Hair et al., 2019). The data obtained from the survey were used to analyze the structural relationships among variables and test the research hypotheses. The conceptual model proposed in this study includes five main constructs: service quality, perceived value, trust, customer satisfaction, and customer loyalty. Service quality, perceived value, and trust are considered independent variables, while customer satisfaction acts as an intermediate variable, and customer loyalty is the dependent variable. The relationships among these variables were analyzed using Structural Equation Modeling (SEM) to determine the causal effects within the research framework.

3.2 Population and Sample

The population of this study consists of students enrolled in private universities in Yunnan Province, China. These students represent the primary stakeholders who directly experience the educational services provided by private universities. Their perceptions regarding service quality, value, and trust are essential for understanding satisfaction and loyalty toward their institutions. Due to the large number of students studying in private universities across Yunnan Province, it is not feasible to collect data from the entire population. Therefore, this study used sampling techniques to select a representative group of respondents. The sampling method employed in this research is purposive sampling, which allows the researcher to select respondents who meet specific criteria relevant to the study. The criteria include students who are currently enrolled in private universities and have sufficient experience with the university's academic and administrative services.

The determination of sample size in structural equation modeling requires an adequate number of respondents to ensure reliable and valid results. According to Hair et al. (2019), the sample size should be at least 10–20 times the number of observed variables used in the measurement model. Based on this recommendation, the study targeted approximately 400 respondents, which is considered sufficient for SEM analysis and ensures the stability of parameter estimates. The sample includes students from different academic years and fields of study to ensure diversity and representativeness. Collecting data from students with varied backgrounds helps improve the generalizability of the research findings.

3.3 Research Instruments

The primary instrument used for data collection in this study is a structured questionnaire. The questionnaire was developed based on previous studies and established measurement scales related to service quality, perceived value, trust, customer satisfaction, and customer loyalty. The questionnaire was designed to measure respondents' perceptions regarding each construct in the conceptual framework.

The questionnaire consists of two main sections.

The first section collects demographic information about the respondents, including gender, age, academic year, and field of study. This information helps describe the characteristics of the sample population.

The second section includes measurement items related to the research variables. Each construct is measured using multiple items adapted from established scales in previous studies. The measurement items were designed to reflect the following constructs: Service Quality, Perceived Value, Trust, Customer Satisfaction, and Customer Loyalty.

All items in the questionnaire were measured using a five-point Likert scale, ranging from 1 = strongly disagree to 5 = strongly agree. The Likert scale is widely used in social science research because it allows respondents to express their level of agreement with statements related to their perceptions and experiences.

Before the main data collection, the questionnaire was reviewed by experts to ensure content validity and clarity of wording. In addition, a pilot test was conducted with a small group of respondents to examine the reliability of the measurement items. Reliability analysis using Cronbach's alpha was conducted to ensure internal consistency among the items measuring each construct.

3.4 Data Collection

Data collection for this study was conducted using a survey method. Questionnaires were distributed to students enrolled in private universities in Yunnan Province. The data collection process involved both online and offline distribution methods to increase response rates and reach a larger number of participants. Before participating in the survey, respondents were informed about the purpose of the research and assured that their responses would remain confidential and used only for academic purposes. Participation in the study was voluntary, and respondents were allowed to withdraw at any time without any consequences. The researcher distributed questionnaires directly to students in selected universities and also used online survey platforms to facilitate data collection. After collecting the completed questionnaires, the responses were carefully reviewed to ensure completeness and accuracy. Questionnaires with incomplete or inconsistent responses were excluded from the analysis. The final dataset consisted of responses from students who met the study's selection criteria and provided complete information. These data were then coded and entered into statistical software for further analysis.

3.5 Statistics Used for Data Analysis

The collected data were analyzed using statistical techniques to test the research hypotheses and examine the relationships among variables in the conceptual framework. The analysis was conducted using statistical software, including SPSS and AMOS, which are widely used in social science and management research.

The statistical procedures used in this study include the following steps:

First, descriptive statistics were used to summarize the demographic characteristics of the respondents, including frequency, percentage, mean, and standard deviation. These statistics provide an overview of the sample profile and respondents' perceptions of the research variables.

Second, reliability analysis was conducted using Cronbach's alpha to evaluate the internal consistency of the measurement scales. A Cronbach's alpha value greater than 0.70 indicates acceptable reliability for the constructs.

Third, confirmatory factor analysis (CFA) was performed to assess the validity of the measurement model. CFA helps evaluate whether the observed variables accurately represent the underlying latent constructs. The analysis also examines factor loadings, composite reliability, and average variance extracted to ensure convergent and discriminant validity.

Finally, Structural Equation Modeling (SEM) was employed to test the structural relationships among the variables in the conceptual framework and evaluate the research hypotheses. SEM allows researchers to analyze complex relationships among multiple variables simultaneously and assess both direct and indirect effects. Model fit indices such as the chi-square statistic, goodness-of-fit index (GFI), comparative fit index (CFI), and root mean square error of approximation (RMSEA) were used to evaluate the adequacy of the model.

Through these statistical analyses, the study aims to determine the strength and significance of the relationships among service quality, perceived value, trust, customer satisfaction, and customer loyalty among students at private universities in Yunnan, China.

4. Data Analysis and Findings

4.1 Introduction

This chapter presents the results of data analysis conducted to examine the causal relationships among service quality, perceived value, trust, customer satisfaction, and customer loyalty among students at private universities in Yunnan, China. The analysis integrates both qualitative and quantitative approaches to provide a comprehensive understanding of the research problem. The data analysis process is organized into four main sections. First, qualitative findings from in-depth interviews with university administrators are presented to support the conceptual framework. Second, descriptive statistics of the respondents and the main variables are analyzed. Third, inferential statistical analyses are conducted using Structural Equation Modeling (SEM) to test the relationships among variables. Finally, the results of hypothesis testing are summarized. The statistical analyses were conducted using SPSS and AMOS software, which enabled the researcher to evaluate reliability, validity, correlation relationships, and structural relationships among the variables. The results obtained from these analyses provide empirical evidence supporting the theoretical framework proposed in this study.

4.2 Data Analysis of the Qualitative Data

The qualitative research was conducted through in-depth interviews with five senior administrators from private universities in Yunnan Province, China. The purposive sampling method was used to select participants who possessed relevant experience in university management and student service quality improvement. The qualitative data were analyzed using content analysis, which allowed the researcher to identify key themes and variables related to service quality, perceived value, trust, customer satisfaction, and customer loyalty. The findings from these interviews confirmed the relevance of the conceptual framework and helped refine the measurement variables used in the questionnaire survey.

The administrators emphasized that improving service quality in higher education involves several important dimensions, including reliability, responsiveness, assurance, empathy, and tangibility. These dimensions were considered crucial in enhancing student satisfaction and loyalty. Furthermore, the interviewees highlighted the importance of perceived value, indicating that students evaluate their university experience based on educational quality, career opportunities, and institutional reputation. Trust was also identified as a key factor influencing students' satisfaction and long-term commitment to the university. According to the administrators, trust can be developed through transparent communication, consistent academic standards, and effective institutional management. The qualitative findings also confirmed that customer loyalty among students is expressed through positive attitudes toward the university, willingness to recommend the institution to others, and continued engagement as alumni after graduation.

Table 1 Summary of Qualitative Findings on Customer Loyalty Components

Component	Administrator 1	Administrator 2	Administrator 3	Administrator 4	Administrator 5
Favorability	✓	✓	✓	✓	✓

Brand Loyalty	✓	✓	✓	✓	✓
Customer Intimacy	✓	✓	✓	✓	✓
Overall Satisfaction	✓	✓	✓	✓	✓

The qualitative results confirm that the identified constructs are appropriate for examining student satisfaction and loyalty within private universities.

4.3 Data Analysis of the Quantitative Data

The quantitative analysis was conducted using data collected from 422 students enrolled in private universities in Yunnan Province. Descriptive statistics, correlation analysis, and structural equation modeling (SEM) were applied to analyze the relationships among the variables.

4.3.1 Demographic Characteristics of Respondents

Table 2 Respondents Classified by Gender

Gender	Frequency	Percentage (%)
Male	155	36.73
Female	267	63.27
Total	422	100

The results show that the majority of respondents were female students, representing 63.27% of the total sample, while male students accounted for 36.73%.

Table 3 Respondents Classified by Age

Age Group	Frequency	Percentage (%)
18–22 years	212	50.24
23–27 years	210	49.76
Total	422	100

The sample shows a balanced distribution between younger and older students, allowing for meaningful comparisons across age groups.

4.3.2 Correlation Analysis

To examine the relationships among the study variables, Pearson correlation analysis was conducted.

Table 4 Correlation Matrix of Study Variables

Variable	Service Quality	Perceived Value	Trust	Customer Satisfaction	Customer Loyalty
Service Quality	1				

Perceived Value	0.650**	1			
Trust	0.580**	0.716**	1		
Customer Satisfaction	0.506**	0.551**	0.828**	1	
Customer Loyalty	0.686**	0.703**	0.645**	0.624**	1

Note: $p < 0.01$

The results indicate that all variables are positively and significantly correlated. The strongest relationship was observed between trust and customer satisfaction ($r = 0.828$), indicating that trust plays a major role in shaping students' satisfaction levels.

4.3.3 Structural Equation Modeling (SEM) Results

Structural Equation Modeling was used to test the causal relationships proposed in the conceptual framework.

Table 5 Model Fit Indices

Fit Index	Value	Recommended Value	Interpretation
χ^2/df	2.606	< 3.00	Acceptable
GFI	0.920	> 0.90	Good fit
RMSEA	0.043	< 0.06	Excellent fit
NFI	0.916	> 0.90	Good fit
CFI	0.917	> 0.90	Good fit

The results show that the structural equation model has a good fit with the empirical data, indicating that the proposed theoretical model is statistically acceptable.

Table 6 Path Analysis Results

Hypothesized Path	Beta	S.E.	C.R.	P-value	Result
Service Quality → Customer Satisfaction	0.085	0.051	2.329	0.020	Supported
Perceived Value → Customer Satisfaction	0.128	0.051	3.006	0.003	Supported
Trust → Customer Satisfaction	0.870	0.041	21.96	0.000	Supported
Service Quality → Customer Loyalty	0.329	0.050	8.238	0.000	Supported
Perceived Value → Customer Loyalty	0.364	0.051	7.768	0.000	Supported
Trust → Customer Loyalty	0.063	0.059	2.100	0.002	Supported
Customer Satisfaction → Customer Loyalty	0.309	0.048	5.816	0.000	Supported

All hypothesized relationships were found to be statistically significant, indicating that the theoretical model is supported by the empirical data.

4.4 Summary of the Results

The results of this study provide important insights into the causal relationships among service quality, perceived value, trust, customer satisfaction, and customer loyalty among students at private universities in Yunnan, China.

First, the qualitative analysis confirmed that service quality, perceived value, and trust are essential factors influencing student satisfaction and loyalty. University administrators emphasized the importance of improving educational services, strengthening institutional credibility, and enhancing student experiences.

Second, the quantitative analysis demonstrated that all study variables are positively correlated. Trust was found to have the strongest relationship with customer satisfaction, indicating that students' confidence in their institution plays a crucial role in shaping their satisfaction levels.

Third, the structural equation modeling results showed that all seven hypotheses were supported. Service quality, perceived value, and trust were found to have significant positive effects on both customer satisfaction and customer loyalty. Among these factors, trust had the strongest influence on customer satisfaction, while perceived value had the strongest direct effect on customer loyalty.

Finally, customer satisfaction was also found to significantly influence customer loyalty, suggesting that satisfied students are more likely to remain loyal to their institutions and recommend them to others.

Overall, the findings of this study confirm the validity of the proposed conceptual framework and highlight the importance of improving service quality, perceived value, and trust in order to enhance student satisfaction and loyalty in private universities.

5. Conclusion, Discussion, and Recommendation

5.1 Conclusion

This study aimed to examine the causal relationships among service quality, perceived value, trust, customer satisfaction, and customer loyalty among students at private universities in Yunnan Province, China. The research employed both qualitative and quantitative research methods. Quantitative data were collected from 422 students using structured questionnaires, while qualitative data were obtained through in-depth interviews with university administrators. The analysis was conducted using statistical tools including descriptive statistics, correlation analysis, and Structural Equation Modeling (SEM).

The conclusions of this study are presented according to the three research objectives.

Objective 1: To examine the causal factors influencing customer satisfaction among students at private universities in Yunnan, China.

The results revealed that service quality, perceived value, and trust significantly influence customer satisfaction among students. Among these factors, trust was found to have the strongest impact on customer satisfaction. This indicates that when students believe that their university is

reliable, transparent, and committed to delivering quality education, they tend to experience higher levels of satisfaction. Service quality also contributes to customer satisfaction. When universities provide effective teaching services, responsive administrative support, and adequate facilities, students are more likely to perceive their learning experience positively. Additionally, perceived value plays an important role in determining students' satisfaction. When students believe that the benefits they receive from education exceed the costs they incur, including tuition fees and time investment, they are more likely to feel satisfied with the institution.

Objective 2: To analyze the influence of service quality, perceived value, and trust on customer satisfaction among students at private universities in Yunnan, China.

The findings confirmed that service quality, perceived value, and trust all have direct and significant effects on customer satisfaction. Service quality influences students' perceptions of the educational services provided by the university, including teaching quality, academic support, and learning facilities. Perceived value reflects students' evaluation of the overall benefits they receive from their education relative to the costs involved. Trust was identified as the most influential factor affecting customer satisfaction. When universities maintain consistent academic standards, provide reliable services, and communicate transparently with students, trust is strengthened. This trust subsequently enhances students' satisfaction and confidence in the institution.

Objective 3: To develop and test a structural model illustrating the relationships among service quality, perceived value, trust, customer satisfaction, and customer loyalty.

The structural equation model developed in this study demonstrated a good fit with the empirical data. The results showed that service quality, perceived value, trust, and customer satisfaction all significantly influence customer loyalty. Students who experience high levels of satisfaction are more likely to remain loyal to the university, recommend it to others, and maintain a positive relationship with the institution even after graduation. The findings confirm that improving service quality, increasing perceived value, and strengthening trust are essential strategies for enhancing student satisfaction and loyalty in private universities. Therefore, universities should adopt student-centered management approaches that focus on delivering high-quality educational services and maintaining strong relationships with students.

5.2 Discussion

This section discusses the findings of the study in relation to the seven research hypotheses and the theoretical concepts presented in Section 2. The results are interpreted by comparing them with previous studies and theoretical perspectives related to service quality, perceived value, trust, customer satisfaction, and customer loyalty.

Hypothesis 1: Service quality has a direct effect on customer satisfaction.

The results of the structural equation modeling analysis indicate that service quality has a significant positive effect on customer satisfaction among students at private universities in Yunnan, China. This finding supports Hypothesis 1 and suggests that when students perceive higher service quality from their universities, they tend to experience greater satisfaction with their educational experience. This finding is consistent with the service quality theory proposed by Parasuraman et al. (1988), who developed the SERVQUAL model, which identifies five key dimensions of service quality including reliability, responsiveness, assurance, empathy, and tangibles. According to Parasuraman et al. (1988), service quality plays a crucial role in shaping customers' evaluations of

service performance and their overall satisfaction. In the context of higher education, service quality refers to the quality of teaching, academic support, administrative services, and learning facilities provided by universities. When universities provide reliable educational services and respond effectively to students' needs, students are more likely to evaluate their university experiences positively. Therefore, improving service quality is an important strategy for enhancing student satisfaction.

Hypothesis 2: Service quality has a direct effect on customer loyalty.

The findings of this study also support Hypothesis 2, indicating that service quality has a significant positive effect on customer loyalty. This means that students who perceive higher service quality are more likely to develop loyalty toward their universities. This result is consistent with previous marketing research suggesting that service quality is a key determinant of customer loyalty. According to Kotler and Keller (2016), organizations that provide superior service quality are more likely to build strong relationships with their customers and enhance long-term loyalty. In higher education, service quality contributes to students' positive experiences and strengthens their emotional attachment to the institution. When students perceive that their universities provide high-quality academic programs and effective support services, they are more likely to recommend the institution to others and maintain long-term relationships with the university.

Hypothesis 3: Perceived value has a direct effect on customer satisfaction.

The results confirm Hypothesis 3, demonstrating that perceived value has a significant positive effect on customer satisfaction. This suggests that students' evaluation of the benefits they receive from their education relative to the costs they incur plays an important role in determining their satisfaction. This finding is consistent with the perceived value theory proposed by Zeithaml (1988), who defined perceived value as the overall assessment of a product or service based on the comparison between the benefits received and the costs incurred. When customers perceive that the value of a service exceeds its cost, they are more likely to experience higher satisfaction. In higher education, perceived value may include the knowledge and skills gained, career opportunities, personal development, and social networks obtained through university education. When students believe that their educational experience provides meaningful benefits, they tend to feel more satisfied with their university.

Hypothesis 4: Perceived value has a direct effect on customer loyalty.

The findings also support Hypothesis 4, indicating that perceived value significantly influences customer loyalty. Students who believe that their education provides valuable benefits for their future careers are more likely to remain loyal to their universities. This result is consistent with value-based marketing theory, which emphasizes that customers develop loyalty when they perceive that the value provided by an organization exceeds their expectations. Kotler and Keller (2016) suggested that perceived value is a key factor influencing customers' decisions to maintain long-term relationships with organizations. In the context of higher education, students who perceive high value in their educational experience are more likely to recommend the university to prospective students and maintain positive relationships with the institution after graduation.

Hypothesis 5: Trust has a direct effect on customer satisfaction.

The results strongly support Hypothesis 5, indicating that trust has a significant positive effect on customer satisfaction. Among the independent variables examined in this study, trust was

found to have the strongest influence on customer satisfaction. This finding is consistent with the commitment–trust theory proposed by Morgan and Hunt (1994), which suggests that trust is a fundamental element in successful relationship marketing. According to Morgan and Hunt (1994), trust reduces uncertainty in relationships and enhances cooperation between organizations and their stakeholders. In the context of higher education, trust is developed when universities demonstrate reliability, transparency, and integrity in their operations. When students trust their universities to deliver high-quality education and maintain fair policies, they are more likely to feel satisfied with their overall educational experience.

Hypothesis 6: Trust has a direct effect on customer loyalty.

The findings also support Hypothesis 6, indicating that trust significantly influences customer loyalty. Students who trust their universities are more likely to maintain long-term relationships with the institution and recommend it to others. This result is consistent with previous research in relationship marketing, which emphasizes that trust plays a crucial role in building long-term customer relationships. Morgan and Hunt (1994) suggested that trust encourages commitment and strengthens the relationship between organizations and customers. In higher education, trust can be strengthened through consistent academic standards, transparent communication, and effective institutional governance. When students believe that their universities operate with honesty and professionalism, they are more likely to develop loyalty toward the institution.

Hypothesis 7: Customer satisfaction has a direct effect on customer loyalty.

The results strongly support Hypothesis 7, demonstrating that customer satisfaction has a significant positive effect on customer loyalty. Students who are satisfied with their educational experience are more likely to remain loyal to their universities. This finding is consistent with the expectation–confirmation theory proposed by Oliver (1999), which suggests that satisfaction occurs when customers’ expectations are met or exceeded. According to Oliver (1999), satisfied customers are more likely to develop loyalty and maintain long-term relationships with organizations. In the context of higher education, satisfied students tend to develop positive attitudes toward their universities, recommend the institution to others, and maintain connections with the university after graduation. Therefore, improving student satisfaction is an important strategy for strengthening customer loyalty in higher education institutions.

5.3 Recommendation

Based on the findings of this study, several recommendations are proposed for university administrators, policymakers, and future researchers.

5.3.1 Practical Recommendations for Universities

Private universities should focus on improving service quality by enhancing teaching effectiveness, upgrading learning facilities, and providing efficient administrative services. Universities should also strengthen their student support systems, including academic advising, career counseling, and digital learning platforms. In addition, universities should enhance perceived value by developing programs that align with labor market demands. Providing internship opportunities, industry partnerships, and career development services can increase the value students perceive from their education. Universities should also prioritize building trust with students. Transparent communication, consistent academic policies, and ethical institutional management can help strengthen trust and improve students’ confidence in the university.

5.3.2 Policy Recommendations

Educational policymakers should support private universities in improving educational quality and institutional governance. Policies that encourage innovation in teaching, quality assurance systems, and collaboration between universities and industries can help enhance the competitiveness of private higher education institutions.

5.3.3 Recommendations for Future Research

Future research should explore additional factors that may influence student satisfaction and loyalty, such as institutional reputation, student engagement, digital learning experiences, and cultural factors. Researchers may also conduct comparative studies between public and private universities to examine differences in service quality perceptions and student loyalty. Moreover, future studies could employ longitudinal research designs to examine how students' satisfaction and loyalty evolve over time. Such studies would provide deeper insights into the long-term relationships between universities and their students.

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