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An Empirical Study on Factors Affecting Satisfaction and Loyalty with Independent Institutions Among Vocational Students in Sichuan, China

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Abstract

Purpose: The objective of this study is to examine the factors that affect students' satisfaction and loyalty towards independent institutions in Chengdu, Sichuan province. The conceptual model incorporates seven variables which are perceived value, service quality, university reputation, university image, and student trust on student satisfaction and student loyalty. **Research design, data, and methodology:** A quantitative approach was employed, and a questionnaire was utilized to collect data from the targeted population. The study involved 578 vocational undergraduate students from four selected independent institutions in Chengdu. Prior to distributing the questionnaire, the content validity and reliability were assessed through Item-Objective Congruence and Cronbach's Alpha pilot test. Sampling methods include judgmental, quota and convenience sampling. The data were analyzed using Confirmatory Factor Analysis and Structural Equation Modeling to validate the model's goodness of fit and establish the causal relationship among variables for hypothesis testing. **Results:** The findings revealed that perceived value, university reputation, and university image significantly affect student satisfaction. Moreover, the study demonstrated that student satisfaction is the significant antecedents of student loyalty and perceived value. However, service quality and student trust have no significant effect on student satisfaction. **Conclusions:** Significant government support is essential to promote the development and improvement of independent institutions to enhance student satisfaction and loyalty.

Keywords : Higher Education, Independent Institutions, Student Satisfaction, Perceived Value, Service Quality

JEL Classification Code: E44, F31, F37, G15

1. Introduction

Higher education has become more popular due to the advancement of the knowledge economy and information society. In order to facilitate job search and successful completion of entrance examinations, the admission requirements of higher education institutions have been extended. This incredible opportunity has greatly assisted the growth of Chinese higher education.

Independent institutions are distinguished by relying on the resources of the teaching staff of their parent university. Cooperation and communication between the independent institutions and the mother university can improve teaching quality because they are both interactive. However, Independent Institutions vary from other government-supported public educational organizations in that they face unique challenges. Education expenditures, educational infrastructure, and the availability of eminent teachers are all covered by this. Independent institutions increase revenue by enrolling more students on average. At the same time, researchers in independent institutions are mostly funded by other research institutes.

Independent institutions, in the context of your study, are educational institutions that operate independently of government control or public funding. These institutions are typically privately owned and managed, and they are not part

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of the public education system. Independent institutions can include private schools, colleges, universities, and other educational organizations that do not rely on government funding for their operations.

Increased competition has made student satisfaction a crucial topic for educational study. Universities can benefit greatly from satisfied students as a source of testimonials. At the same time, unsatisfied students may generate a complaint environment, which may have a negative impact on the institution's image (Mazzarol & Soutar, 2012). Institutions need to recognize the significant causes that are linked to student satisfaction. The importance of student satisfaction has recently been emphasized by all higher education institutions (Temizer & Turkyilmaz, 2012). Competitive advantage is based primarily on student satisfaction, which has become a major competitive factor for institutions (Arambewela & Hall, 2009). Therefore, the objective of this study is to examine the factors that affect students' satisfaction and loyalty towards independent institutions in Chengdu, Sichuan province.

2. Literature Review

2.1 Perceived Value

In service marketing and management, perceived value is a concept that is both elusive and ill-defined (Car & Cova, 2003)—based on the theory of fairness, assuming that clients assess what they receive relative to what they give, both monetary and non-monetary (Oliver & DeSarbo, 1988). Perceived value is a product or service based on the perception of what has been donated and received (Zeithaml et al., 1988). The net worth of the service at HEIs was assessed through the assessment of students. The service's benefits and the costs or sacrifices associated with its acquisition and use (Kunanusorn & Puttawong, 2015). Hence, this study hypothesizes that:

H1: Perceived value has a significant effect on student satisfaction

2.2 Service Quality

Zeithaml et al. (1988) characterized service quality as superior or excellence in service delivery. According to Ali et al. (2012), service quality is a significant factor in competitiveness and is frequently discussed, especially in services marketing literature. Service quality resulted from comparison expectations and performance perception, which was a form of attitude related to satisfaction but not equal to satisfaction (Parasuraman et al., 1994). Chen and Esangbedo (2018), who analyzed colleges in Taiwan, recommended that researchers measure colleges' service quality by considering school, staff, and teacher dimensions. Annamdevula and Bellamkonda (2016) proposed an alternative to measure the service quality of colleges by using higher education quality (HiEduQual). Hence, this study hypothesizes that:

H2: Service quality has a significant effect on student satisfaction.

2.3 University Reputation

A company's reputation can be interpreted as its overall perception when purchasing products or using its services. It defines what it represents, is associated with, and can be expected to achieve (Fombrun & Shanley, 1990; MacMillan et al., 2005). The sum of all interactions between the entity and parties over time was defined by Herbig and Milewicz (1993) as reputation. The institution's reputation is determined by how people perceive the university's objectives, ethics, working methods, and treatment of students (Chen & Esangbedo, 2018). Hence, this study hypothesizes that:

H3: University reputation has a significant effect on student satisfaction.

2.4 University Image

When the image concept was first proposed, it advocated examining corporations with a humanistic perspective because customers often portray them through personified descriptions (Kuo & Ye, 2009). The image is a general impression made by a person about an object. The university's underlying image is assessed through the image construct. The image represents the nominative brand and the associations students make with products or services (Lai et al., 2009). The success of universities has been attributed to a critical component of corporate image (Mohamad & Awang, 2009). The students will positively assess the institution's services if they perceive its image (Clemes et al., 2008).

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H4: University image has a significant effect on student satisfaction.

H6: University image has a significant effect on student loyalty.

2.5 Student Trust

Trust is the capacity to have confidence in a trusted trading partner (Moorman et al., 1993). Student trust is defined by the student's confidence in the integrity and reliability of the university (Rojas-Méndez et al., 2009). Confidence, as characterized by others (Carvalho & de Oliveira Mota, 2010; Ghosh et al., 2001), is the student's trust in the university's ability to take appropriate actions that benefit them/her. The institution's integrity and reliability are reflected in students' trust, which reflects their belief in it (Aritonang & Lerbin, 2014). The belief that an individual, group, or organization can be trusted to fulfill their promises is trust. The development of customer loyalty is greatly influenced by it (Newell et al., 2015). According to Katz and Strier (2015), parental involvement in schools can be enhanced by trust. Their findings show that parents' participation in their chosen schools has indirect, indirect, and sometimes paradoxical effects due to different forms of confidence. Student trust in schools is comparable to parental trust. Schools are social systems, and confidence plays a significant role in student achievement. The likelihood of students demonstrating an elevated level of learning decreases when they lack trust in their teachers and schools (Romero, 2015). Hence, this study hypothesizes that:
H5: Student trust has a significant effect on student satisfaction.

2.6 Student Satisfaction

Due to increasing competition, student satisfaction has become a major research topic in higher education. Satisfaction assessment is based on the knowledge gained during services (Anderson et al., 1994). Elliott and Shin (2002) defined student satisfaction as the positiveness of a student's subjective assessment of the various educational outcomes and experiences. This concept is derived from a judgment when comparing service to a standard (Oliver & DeSarbo, 1988; Rojas-Méndez et al., 2009). When perceived achievement meets or exceeds a student's expectations, it translates into satisfaction with post-secondary education, which affects student loyalty (Elliott & Healy, 2001). Hence, this study hypothesizes that:
H7: Student satisfaction has a significant effect on student loyalty.

2.7 Student Loyalty

The act of student loyalty was to give positive words about the institution and recommend it to family, friends, employers, and organizations whenever opportunities presented themselves (Anusorn Kunanusorn, 2015). The trend (Brown & Mazzarol, 2008) and the desire to reuse a university are markers of student loyalty (Yang & Peterson, 2004). A student's loyalty to choosing the same provider, such as higher education institutions or the same department rather than another (Ali et al., 2012). Student loyalty is defined as the loyalty of students after graduation by Athiyaman (1997), Helgesen and Nesset (2007), Mohamad and Awang (2009), and Thomas (2011).

3. Research Methods and Materials

3.1 Research Framework

The research adopts a quantitative research approach utilizing online questionnaires for data collection and analysis with statistical software. The study draws upon relevant theories, literature reviews, and previous research, including the implementation of the student satisfaction index model in higher education institutions by Temizer and Turkyilmaz (2012), the examination of the impact of service quality and university image on student satisfaction and loyalty by Chandra et al. (2019), the investigation into the influence of higher education service quality on student satisfaction, image, and loyalty by Ali et al. (2012), and the exploration of the relationships between brand association, trust, commitment, and satisfaction of higher education institutions by Chen (2017). The research framework and methodology were developed as follows:

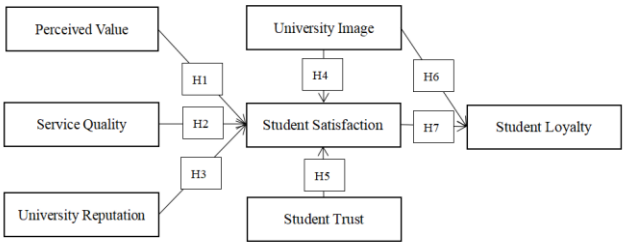

Figure 1: Conceptual Framework

H1: Perceived value has a significant effect on student satisfaction
H2: Service quality has a significant effect on student satisfaction.
H3: University reputation has a significant effect on student satisfaction.
H4: University image has a significant effect on student satisfaction.

H5: Student trust has a significant effect on student satisfaction.
H6: University image has a significant effect on student loyalty.
H7: Student satisfaction has a significant effect on student loyalty.

3.2 Research Methodology

The data collected in questionnaires and interview surveys are the two main types of survey research. The main advantage of questionnaires over other approaches, such as interviews, was that it was easier to get responses from many respondents. Consequently, the data gathered can be used to generate more generalizable findings. Web-based technologies have made these research methods more popular, making them the most time-efficient and rigorous available today (Brady & Cronin, 2001).

The study collected survey data through a questionnaire based on empirical analysis and a quantitative approach. The questionnaire was created through an online questionnaire to make data distribution and collection easier and faster. To ensure the reliability of each structure, the researcher used a pilot test and adopted Item-Objective Congruence (IOC) before distributing. The questionnaire was distributed via an online survey to gather data. The respondents comprised both vocational undergraduates and undergraduates from the selected four independent institutions. After obtaining quantitative data, the researcher used JAMOVI and AMOS to evaluate the sample data.

In order to establish the questionnaire's reliability, a preliminary test was administered to a group of 30 participants, and subsequently, an evaluation was conducted using the Index of Item-Objective Congruence (IOC). Three experts assessed the IOC, yielding results indicating that each scale item received a rating of 0.6 or higher, which denotes a satisfactory level of congruence. Furthermore, the pilot test employed the Cronbach alpha coefficient to assess reliability, revealing robust internal consistency across all items, with values equal to or exceeding 0.7, consistent with the validation found in Sarmento and Costa's study from 2016.

3.3 Population and Sample Size

According to McCarty (1994), determining sample size is challenging and requires strong scientific knowledge. Whether the sample was sufficient also depends on the type of analysis you want to perform. Fletcher et al. (2016) outlined seven factors that might affect the potential size of a sample. Ghauri et al. (2020) stated that the more data there is, the better. The potential for sampling errors decreased as larger samples were used (Chao et al., 1996). The sample size required for the latent variable was investigated by Tanaka (1987). It is important to understand the selection process for the sample and the number of people invited to participate (Russell, 2005). For a complex model, the sample size required was 500 compared to a single model (Williams et al., 2010).

3.4 Sampling Technique

The objective of this research was to investigate the factors that influence student satisfaction and loyalty with Independent Institutions in Chengdu, with a particular focus on users' demographic characteristics and the impact factors of satisfaction and loyalty. The researcher employs judgmental, quota, and convenience sampling. For judgmental, this study selects undergraduates studying in independent institutions in Chengdu, China. The quota sampling is demonstrated in Table 1. For convenience sampling, data were collected through online questionnaires, resulting in a total of 500 respondents. However, after questionnaire distribution, 578 responses were received.

Table 1: Sample Units and Sample Size

University	Population Size	Proportional Sample Size
Jincheng College of Sichuan University	5,444	141
Chengdu college of University of Electronic Science and Technology of China	5,524	143
Southwest Jiaotong University Hope College	4,692	121
College of Arts and Sciences of Sichuan Normal University	3,656	95
Total	**19,316**	500

Source: Constructed by author

4. Results and Discussion

4.1 Demographic Information

From the Table 2, the researcher found out that of the 578 study participants. All the participants were vocational undergraduates studying in the four selected independent institutions in Chengdu. 177 (30.62%) of which came from Jincheng College of Sichuan University, 93 (16.09%) of which were came from Chengdu College of the University of Electronic Science and Technology of China, 157 (27.16%) of which were came from Southwest Jiaotong University Hope College and 151 (26.13%) were came from College of Arts and Sciences of Sichuan Normal University. If considering the gender, 42.73% (247) were male, and 57.27% (331) were female.

Table 2: Demographic Profile

Demographic and General Data (N=578)		Frequency	Percentage
Gender	Male	247	42.73%
	Female	331	57.27%
Institutions	Jincheng College of Sichuan University	177	30.6%
	Chengdu college of University of Electronic Science and Technology of China	93	16.09%
	Southwest Jiaotong University Hope College	157	27.17%
	College of Arts and Sciences of Sichuan Normal University	151	26.14%

Source: Constructed by author

4.2 Confirmatory Factor Analysis (CFA)

In social science research, Confirmatory Factor Analysis is the most used type of factor analysis (Markus, 2012). Confirmatory factor analysis is employed to ensure that the data matches the proposed measurement model (Jöreskog, 1969). The primary focus of this subdiscipline is on measuring models for structural equation modeling

CFA examines previous assumptions and is mostly motivated by theory. The researcher in CFA studies requires postulation of the number of factors. The connection between these factors and how items/measures relate to and reflect them in advance (Zientek, 2008). Factor loadings, unique variances, and factor variances are all included in all CFA models.

Convergence validity assesses the interrelationships among variables within the same construct. Fornell and Larcker (1981) introduced three measurement criteria for evaluating convergence validity, which include factor loadings exceeding 0.5, composite reliability (CR) surpassing 0.7, and average variance extraction (AVE) exceeding 0.4.

Table 3: Confirmatory Factor Analysis Result, Composite Reliability (CR) and Average Variance Extracted (AVE)

Variables	Source of Questionnaire (Measurement Indicator)	No. of Item	Cronbach's Alpha	Factors Loading	CR	AVE
Perceived value (PV)	Zeithaml et al. (1988)	5	0.936	0.793-0.897	0.933	0.737
Student Trust (ST)	Moorman et al. (1993)	5	0.921	0.771-0.902	0.912	0.663
Service quality (SQ)	Zeithaml et al. (1988)	4	0.903	0.788-0.872	0.904	0.701
University Reputation (UR)	Selnes (1993)	4	0.923	0.844-0.933	0.927	0.749
University image (UI)	Haedrich (1993)	4	0.879	0.753-0.934	0.927	0.761
Student satisfaction (SS)	Anderson et al. (1994)	7	0.952	0.890-0.914	0.952	0.742
Student loyalty (SL)	Anusorn (2015)	4	0.968	0.907-0.971	0.967	0.880

A confirmatory factor analysis was used to evaluate the measurement template's adequacy. The measurement model must be adjusted for vocational undergraduates because the initial results are inaccurate. The CMIN/DF is less than five by 3.604, the GFI is greater than 0.80 by 0.843, the AGFI is greater than 0.8 by 0.802, the NFI is greater than 0.8 by 0.934, the CFI is greater than 0.8 by 0.951, the TLI is greater than 0.8 by 0.943, and the RMSEA is less than 0.10 by 0.067, so the model fit.

Table 4: Goodness of Fit for Measurement Model

Fit Index	Acceptable Criteria	Statistical Values
CMIN/df	< 5.00 (Al-Mamary & Shamsuddin, 2015; Awang, 2012)	3.604
RMSEA	≤ 0.10 (Hopwood & Donnellan, 201 0)	0.067
GFI	≥ 0.80 (Doll et al., 1994)	0.843
AGFI	≥ 0.80 (Sica & Ghisi, 2007)	0.802
NFI	≥ 0.80 (Wu & Wang, 2006)	0.934
CFI	≥ 0.80 (Bentler, 1990)	0.951
TLI	< 0.08 (Sharma et al., 2005)	0.943
Model Summary		**In harmony with empirical data**

Remark: CMIN/DF = The ratio of the chi-square value to degree of freedom, RMSEA = root mean square error of approximation, GFI = goodness-of-fit index, AGFI = adjusted goodness-of-fit index, NFI = normalized fit index, CFI = comparative fit index and TLI = Tucker Lewis index

The square root of the Average Variance Extracted should be compared to the coefficients of each construct to assess discriminant validity. When the EVA's square root exceeds each concept's coefficients acted should be compared to the coefficients of each construct to assess discriminant validity. When the square root of the EVA exceeds the coefficients of each concept, discriminating validity is demonstrated (Fornell & Larcker, 1981).

Table 5: Discriminant Validity

	PV	ST	SQ	UI	UR	SS	SL
PV	**0.858**						
ST	0.733	**0.837**					
SQ	0.743	0.779	**0.814**				
UI	0.794	0.741	0.787	**0.872**			
UR	0.769	0.746	0.742	0.711	**0.865**		
SS	0.771	0.733	0.787	0.733	0.706	**0.861**	
SL	0.602	0.552	0.638	0.554	0.629	0.762	**0.938**

Note: The diagonally listed value is the AVE square roots of the variables
Source: Created by the author.

4.3 Structural Equation Model (SEM)

The use of Structural Equation Modeling (SEM) has significantly evolved and become a prevalent methodology in various fields of research (Fan et al., 2016). SEM encompasses a diverse range of methodologies employed by researchers in both experimental and observational studies. While it is widely utilized in the social and behavioral sciences, its applicability extends to disciplines such as epidemiology, business, and other fields (Hu & Bentler, 1999).

Coordinating measurement errors among construction elements led to modifying the structural model. In table 6, the goodness-of-fit indices were recalculated using the modified structural model. The results of statistical values were CMIN/DF = 4.995, GFI = 0.845, AGFI = 0.800, NFI=0.911, CFI = 0.928, TLI = 0.912, and RMSEA = 0.083. It has been confirmed that the structural model is fit.

Table 6: Goodness of Fit for Structural Model

Index	Acceptable	Statistical Values
CMIN/df	< 5.00 (Al-Mamary & Shamsuddin, 2015; Awang, 2012)	4.995
RMSEA	≤ 0.10 (Hopwood & Donnellan, 2010)	0.083
GFI	≥ 0.80 (Doll et al., 1994)	0.845
AGFI	≥ 0.80 (Sica & Ghisi, 2007)	0.800
NFI	≥ 0.80 (Wu & Wang, 2006)	0.911
CFI	≥ 0.80 (Bentler, 1990)	0.928
TLI	< 0.08 (Sharma et al., 2005)	0.912
Model Summary		**In harmony with Empirical data**

Remark: CMIN/DF = The ratio of the chi-square value to degree of freedom, RMSEA = root mean square error of approximation, GFI = goodness-of-fit index, AGFI = adjusted goodness-of-fit index, NFI = normalized fit index, CFI = comparative fit index and TLI = Tucker Lewis index

4.4 Research Hypothesis Testing Result

The significance of each variable was assessed by examining its standardized path coefficient (β) and t-value, as detailed in Table 7. The findings of this study confirmed the substantial impact of H1, H3, H4, H6, and H7, whereas H2 and H5 are not significant.

Table 7: Hypothesis Results of the Structural Equation Modeling

Hypothesis	(β)	t-Value	Result
H1: PV →SS	0.720	9.16***	Supported
H2: SQ→SS	-0.003	-0.047	Not Supported
H3: UR→SS	0.281	6.702***	Supported
H4: UI→SS	0.334	6.302***	Supported
H5: ST→SS	0.027	0.456	Not Supported
H6: UI→SL	-0.067	-2.633**	Supported
H7: SS→SL	0.650	15.010***	Supported

Note: *** p<0.001, ** p<0.01
Source: Created by the author

H1 suggests that students' satisfaction is positively impacted by perceived value. With a value of 0.720 and a t value of 9.16, the results validate this assumption. The findings follow the previous empirical findings from higher education literature (Alves & Raposo, 2010; Brown & Mazzarol, 2008). The university's emotional responses to students tend to be more favorable due to the trade-off between what they give and receive in exchange for being adequate.

H2 considered whether the quality of service affected student satisfaction, which was disapproved by the results with a value of -0.003 and a t-value of -0.047. The research that suggests a significant correlation between service quality and satisfaction (Brady & Cronin, 2001; Kuo & Ye, 2009) does not align with this study. The most probable explanation is that students are dissatisfied with the quality of service alone. The satisfaction of students is assessed by analyzing both pre-purchase and post-purchase experiences. Consequently, student satisfaction cannot be influenced solely by service quality.

The hypothesis of **H3** was that reputation would significantly impact student satisfaction, which was confirmed by the results with a value of 0.281 and a t-value of 6.302. According to the findings, students with positive perceptions of the university's reputation will likely have higher satisfaction levels. In higher education literature, previous empirical findings (Brown & Mazzarol, 2008; Bush et al., 1998; MacMillan et al., 2005) are consistent with the findings.

According to **H4,** the university's image positively impacts students' satisfaction with the higher education institution. With a value of 0.334 and a t value of 6.702, the results confirm this hypothesis. This assertion aligns with previous research findings (Alves & Raposo, 2010; Clemes et al., 2013). The importance of measuring and highlighting the institution's image is unquestionable, as it is the top priority for student satisfaction. The image conceived by students must be evaluated as higher education institutions' first and foremost priority to ensure student satisfaction.

H5 argued that student confidence positively impacts student satisfaction with the institution of higher learning. With a value of 0.027 and a t value of 0.456, the results fail confirm this hypothesis. The study falls within the category of research that needs to establish a substantial connection between student trust and satisfaction (Shiau & Chau, 2012; Thong et al., 2006).

H6 suggested that the university's image positively impacts their loyalty to the higher education institution. The results support it with a value of -0.067 and a t-value of -2.633. Moreover, this suggests that a more positive image of the university leads to stronger loyalty to the institution. The findings follow the various empirical studies in higher education (MacMillan et al., 2005; Selnes, 1993).

H7 suggested that their loyalty to HEIs is positively impacted by student satisfaction. The results indicate that H7 is supported with a value of 0.650 and a t-value of 15.010. A stronger loyalty towards the institution results from higher levels of student satisfaction. The findings followed several empirical studies conducted in higher education (Arif & Ilyas, 2013; Beerli Palacio et al., 2002; Helgesen & Nesset, 2011)

5. Conclusion and Recommendation

5.1 Conclusion and Discussion

There is a distinction between undergraduates and vocational undergraduates regarding service quality and satisfaction. Previous studies (Alves & Raposo, 2010; Brady & Cronin, 2001; Hasan et al., 2009) have shown that service quality significantly affects student satisfaction. Moreover, it was demonstrated in undergraduate students. It has yet to be proven among vocational undergraduate students. This may be due to the different settings and teaching methods of the two types of education. Unlike undergraduates, junior college students pay more attention to practical operations, including the accumulation of practical experience, so they pay more attention to hardware. The hardware and software facilities of the independent universities surveyed are relatively backward. In addition, junior college students have longer off-campus internships, so they do not have time to use other facilities provided by the school. These have influenced their views of service quality.

This study found that university reputation has an important and positive impact on student satisfaction with Independent Institutions. Graduating from a university with a good reputation will help you find a job and increase student satisfaction (Bigné et al., 2001; Brown & Mazzarol, 2008). The study confirms that enhancing students' satisfaction with the school is beneficial if they believe it has a good reputation.

This study found that student’s satisfaction with Independent Institutions is significantly influenced by the university image (Alves & Raposo, 2010). If the university has a good image and good faith on the part of the students, it will satisfy them. Students continue to place a high level of importance on their university's image, as evidenced by the strong impact of image on student satisfaction, not only at the beginning of the consumption process but also throughout and after it.

The study did not demonstrate a correlation between student trust and satisfaction among vocational undergraduate and undergraduate students. This contradicts previous research (Kunanusorn & Puttawong, 2015). Independent institutions operate independently and are responsible for their profits and losses. Tuition is higher than at public institutions. In order to increase profits, on the one hand, schools will tend to enroll more students to increase their income.

On the other hand, the school will save costs, including controlling the number of staff. The teacher-student ratio is generally low in the four universities selected for this article. Student trust is more through the trust between teachers and students. This has seriously affected students' trust.

5.2 Recommendation

One of the key findings of this paper is that there is no direct link between student trust and satisfaction in independent institutions. This finding can be largely attributed to the limited availability of teacher resources. Many independent institutions face challenges due to inadequate funding and resources. This situation raises concerns about the ability of these institutions to attract qualified teachers, resulting in potential issues with the quality of education. Most teachers in independent institutions receive low salaries and struggle to retain talented individuals. Part-time teachers are heavily relied upon, while full-time teachers often comprise young individuals with limited teaching experience or retired teachers from the public sector.

Addressing the issue of long-term competitiveness in independent institutions, including private colleges and universities, is a crucial matter that requires thoughtful consideration. The policy environment in China plays a significant role in this regard. The government's approach to independent institutions has been passive and lacking a long-term vision. To ensure the healthy development of independent and private institutions, modifications to this political environment are necessary. Promoting higher education reform requires a mature, stable, and transparent decision-making process that is not influenced by individual interests. While government approval is required to initiate higher education reforms in China, the dominance of the government has hindered more extensive reforms. The key question in the reform process lies in the relationship between the government and higher education, necessitating

active participation from social forces and the universities themselves.

Significant government support is essential to promote the development and improvement of independent institutions. While private higher education has received political support from the Chinese government, practical support, such as public funding or investment in educational resources, remains limited.

5.3 Limitation and Further Study

The study's findings demonstrated that perceived value, university image, and university reputation significantly impacted student satisfaction with independent institutions. In both the undergraduate and vocational undergraduate groups, perceived value had the highest predictive power, university image was the second strongest predictor, and university reputation was the third strongest predictor. Moreover, there were differences between the undergraduate and vocational undergraduates. The service quality in the undergraduate group has been proven to impact satisfaction directly, but not in the vocational undergraduate group. Moreover, it has been proved that student trust does not influence student satisfaction.

The results indicate that student satisfaction is the most reliable indicator of student loyalty. There are differences in the image of the university. The research shows that university image directly influences the loyalty of higher vocational undergraduate students, whereas university image does not affect the loyalty of undergraduate students.

When interpreting the findings of this study, it is important to consider the research limitations, even if a scientific approach was used. There are two ways in which this study could be improved.

Students enrolled in independent institutions in Chengdu were the primary data sources for the study. University infrastructure, which included libraries, labs, information technology services, and classrooms, was less advanced than those in developed and industrialized countries. Students' perceptions and behaviors regarding their institutions may have influenced the magnitude of the relationships proposed in the structural model.

The study was based on information that was gathered at some point. Students can experience changes in their perception of their school during their studies. Future studies must use longitudinal data to capture students' changing perceptions. Keeping track of student opinions is important because the length of time a university may be within may reveal its weaknesses from students' perspectives. Longitudinally, I follow the same students through their university life to maximize efficiency.

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