Blended Learning Satisfaction Among Art Students in Local Universities in Sichuan, China

Tongcheng Liu[*]

Abstract

Purpose: This study explored the influencing factors of art students' satisfaction with blended learning in local colleges in Sichuan. The conceptual framework proposes a causal relationship between faculty services, academic aspects, reputation, heritage, trust, service quality, and students' satisfaction. **Research design, data, and methodology:** The researcher used quantitative methods (n=500) to survey undergraduate art students in local ethnic colleges and universities in Sichuan. Three target universities were selected. The sampling techniques are judgmental, stratified random and convenience sampling. The index of item-objective congruence (IOC) and Cronbach's alpha reliability were used before the data collection. This study used structural equation modeling (SEM) and confirmatory factor analysis (CFA) for data analysis, including model fit, reliability, and validity. **Results:** Faculty services, academic aspects, reputation, heritage, trust, and service quality have a significant impact on students' satisfaction. In addition, trust has a significant impact on reputation. However, service quality has no significant impact on reputation. **Conclusions:** Therefore, it is recommended that institutions of higher learning and administrators should pay attention to faculty services and trust to improve student satisfaction and increase the competitiveness of schools. The results imply that universities should prioritize enhancing faculty service as a fundamental element of their strategy to boost student satisfaction.

Keywords : Art Students, Blended Learning, Student Satisfaction, Higher Education, Ethnic Universities

JEL Classification Code: E44, F31, F37, G15

1. Introduction

In order to better meet the learning needs of modern students, especially after the impact of COVID-19 in 2019, universities are placing great emphasis on blended learning for students. Increase student satisfaction with blended learning to improve the quality of higher education. Poor student satisfaction at the university may have a bad effect on them (withdrawal, etc.), which will have a bad impact on the university and be very detrimental to the future development of the university (Chadwick & Ward, 1987).

Various studies on service customer satisfaction have concluded that satisfaction is formed for various reasons. Satisfaction performance is the same in institutions of higher learning, and to make matters worse, research on satisfaction still needs to be conducted in this sector (Alves & Raposo, 2007). The uneven regional development of higher education in China is more significant for studying the blended learning satisfaction of undergraduate art students in local ethnic colleges in Sichuan. The uneven development of undergraduate education in China regions is very prominent, and the development of ethnic colleges and universities (Abbreviation: ECU) in Sichuan Province reflects this phenomenon to a certain extent. In Sichuan Province, three ECULJ (Ethnic colleges and universities under local jurisdiction, Abbreviation: ECULJ): Sichuan Minzu College, Aba Teachers University, and Xichang University. ECULJ has many policies for caring for students belonging to ethnic minorities or living in ethnic minority autonomous regions. The proportion of ethnic students in schools is relatively

1*Tongcheng Liu, School of Fine Arts, Sichuan Minzu College, China. Email: 117496856@qq.com

large, and the research on the factors affecting student satisfaction in these schools is significant.

Sichuan local ethnic colleges and universities mainly refer to the ethnic autonomous prefecture located in Sichuan. There are certain preferential policies and measures for minority students, which have brought preferential treatment to minority students and trained more minority talents, thus serving minority areas. There are three local ethnic universities (undergraduate universities) in Sichuan: Sichuan Minzu College, Aba Teachers University, and Xichang University.

This article explains the remarkable relationship between factors that affect satisfaction, reputation, faculty service, academic aspects, reputation, trust, and service quality. The research model is established by integrating several sources and authors to test the relationship from different angles.

This study focuses on exploring the factors affecting learning satisfaction and reputation. China's higher education is developing rapidly and entering another new stage. Therefore, it is necessary to understand what factors can affect students' satisfaction and reputation. This study mainly refers to Astin (1999) theory of student involvement, Tinto (1975) retention theory, Abdullah (2005) five-dimensional scale for measuring service quality (Darby & Karni, 1973; Nelson, 1970).

2. Literature Review

2.1 Faculty Services

Faculty service is also a potential determinant of student satisfaction. In this dimension, faculty service elements are combined, fundamentally referring to teaching quality and teaching effect (Navarro et al., 2005). In faculty service, faculty and students are part of the teaching experience (Shank et al., 1995).

Whether the methods used by teachers in the teaching process can meet the needs of students is an important indicator affecting students' satisfaction with the evaluation of faculty service, and it is bound to the basic services provided by universities (Navarro et al., 2005). Faculty service satisfaction is more stable and unified in the service satisfaction of students in all surveyed colleges (Arif et al., 2013). The three factors in faculty service, teaching methods, curriculum management, and teaching personnel, are the most important aspects determining students' satisfaction (Navarro et al., 2005).

Faculty service, curriculum management, and teachers' teaching methods are key factors in achieving SS and loyalty (Subrahmanyam & Shekhar, 2017). The main body of faculty service, teachers, the teaching methods, and curriculum management used by teachers are directly controlled by the College and can be formulated according to the direction of high student satisfaction (Navarro et al., 2005). S assurance contains beneficial aspects that impact students and teachers and helps to encourage students and teachers to study hard (Mccollough & Gremler, 1999).

H1: Faculty services have a significant impact on satisfaction.

2.2 Academic Aspects

Academic aspects, administrative service, support service, and campus infrastructure directly relate to students' satisfaction (Subrahmanyam & Shekhar, 2017). Academic aspects have a very large indirect impact on loyalty (Subrahmanyam & Shekhar, 2017). The benefits provided by students affect the image of academic institutions (Ahmed et al., 2010). For universities, faculty involvement is the main source of all steps in ensuring quality in academic institutions (Navarro et al., 2005). The main stakeholders of the University's academic institutions are students, their families, and parents, the societies with which they are connected, local authorities, local communities, local governments, etc., all existing or potential employers (Rowley, 1997). SS is a very important factor in shaping institutional motivation in academic terms (Juillerat & Schreiner, 1996). In the academic aspect, the average score of all research dimensions is high, which shows that academic has a great impact on SS (Ali et al., 2016).

H2: Academic aspects has a significant impact on satisfaction.

2.3 Reputation

Panda et al. (2019) found that reputation is the mediator closely linked to university brand image and SS. Reputation is a distinctive factor of the college and a powerful way to attract future students. A good reputation will improve students' satisfaction and increase brand loyalty (Panda et al., 2019). According to Bromley (2002), College reputation is a perception of the college by students and stakeholders; it is a filter that affects the perception of college operation (Lai et al., 2009). Grönroos (1984) proposed that the reputation of the colleges is mainly established by teaching and academic quality, functional quality (supporting facilities, and overall service quality).

According to Berry (2000), the construction of a college's image is intimately linked to its reputation, which significantly impacts students' college experience. Future students' decision-making will be affected by intangible factors such as college reputation, brand image, and value (Durvasula et al., 2011). University reputation is related to the quality of the university, and they can use it to influence whether students attend the university (Nguyen & Leblanc,

2001). Nguyen et al. (2016) suggest that students' knowledge of a university's reputation comes primarily from the teaching staff, literature, and students they have been exposed to.

College reputation is more extensive than brand image, seriously affecting students' satisfaction. A reputable college will have many advantages, such as good teachers, students, social resources, and support. At the same time, these will enhance the image of the college (Panda et al., 2019). If a college gives students a good image and reputation, students will be surer of the school's service (Kuo & Ye, 2009). (Sultan & Wong, 2012) The image and reputation of a college are closely related to students' trust and satisfaction with the college.

H3: Reputation has a significant impact on satisfaction.

2.4 Heritage

The Cambridge Dictionary: "characteristics that belong to specific socio-cultural characteristics, encompassing traditions, languages, etc." Heritage is the university brand (Panda et al., 2019). Urde et al. (2007) point out that brand heritage is an important distinguishing point for brands from other brands, including the market record of the brand product, the life of the product, the core value of the brand, the use of the brand symbol, and especially the organization's belief in the historical significance of the brand.

Universities that value heritage have a good cultural atmosphere, and studying here will provide a good education, including access to museums, large collections, and enjoyment of a pleasant environment. Students prefer to choose universities that offer more and better services and provide adequate cultural experiences (Bulotaite, 2003). University heritage is living, which can make university culture and traditions better passed on and protected and, at the same time, better developed and attracted more young people. A university with a rich cultural tourism heritage can also be part of the university's financial support. (Bulotaite, 2003).

H4: Heritage has a significant impact on satisfaction.
H7: Heritage has a significant impact on reputation.

2.5 Trust

In branding, trust refers to the consumer's sense of security with a brand that meets consumer expectations (Delgado-Ballester & Luis Munuera-Alemán, 2001). Students' sense of trust comes from fulfilling their commitments and personal feelings when dealing with college staff (Brodie et al., 2009). Trust is the degree of trust in each other. In any fragile situation, it is a way of doing and a manifestation of a sense of security. In college and college, good management, good courses, and good employees will

improve students' trust (Panda et al., 2019).

The important factors for building trust include reliability, ability, integrity, and employee behavior response-ability, as well as the company's management policy and practical behavior (Sirdeshmukh et al., 2002). Trust is a kind of confidence among students. Their confidence in the college's services will not be affected regardless of any uncertainty (Panda et al., 2019). Trust will enhance students' commitment to the college and encourage students to have positive expectations for the college's behavior (Sirdeshmukh et al., 2002). High-level learning should be built in a nurturing environment, including trust; educational institutions composed of high-level learning are an important social system (Bryk & Schneider, 2004).

H5: Trust has a significant impact on satisfaction.
H8: Trust has significant impact on reputation.

2.6 Service Quality

Service quality has become an established concept (Grönroos, 1984; Parasuraman et al., 1988). Service quality is a multidimensional structure composed of service facilities and service delivery. That is, it is composed of "hardware" and "human parts," including infrastructure, tangible service elements, personnel, and processes (Brown & Mazzarol, 2009). Service quality has become an important bargaining chip for colleges to compete, and college try their best to provide their service carefully to distinguish the forefront of colleges (Kanji et al., 1999; Yeo, 2008). The service provided by higher education is a unique and intangible service that will have a long-term impact on the quality of life of individual students. It plays a vital role in its evolution and affects society (Arif et al., 2013). The college's service quality can improve competitiveness and attract new and retain old students (Sultan & Wong, 2011).

H6: Service quality has a significant impact on satisfaction.
H9: Service quality has a significant impact on reputation.

2.7 Satisfaction

Contentment is a blessing when a person gets what they want or need. This is the state a person feels when the performance or outcome of their experience matches their needs (Arif et al., 2013). Satisfaction is a sensation that results from comparing one's perception of performance to one's expectations, leading to feelings of happiness or disappointment (Kotler & Keller, 2012). Panda et al. (2019) discusses the relationship between university brand image and satisfaction. Satisfaction determines the university's development and plays a crucial role in improving the quality of the university's services (Abdullah, 2006). Ali et al. (2014) studied the relationship between service quality and student satisfaction and the relationship between satisfaction and

university image loyalty and determined that the relationship between them was strong. Martirosyan (2015) explores the impact of satisfaction in the university environment of AHEIs in terms of faculty services, facilities, academic experience, daily life, and social.

3. Research Methods and Materials

3.1 Research Framework

This study mainly refers to Astin's (Astin, 1999) theory of student involvement, Tinto's (1975) retention theory, Abdullah's (Abdullah, 2005) five-dimensional scale for measuring service quality, "HEDPERF," (Darby & Karni, 1973; Nelson, 1970) university services attributes. The conceptual framework of this study is shown in the figure:
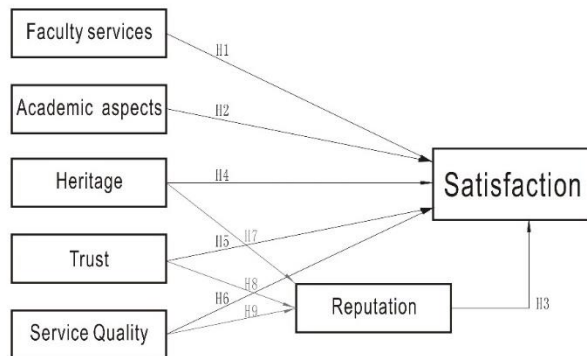

Figure 1: Conceptual Framework

H1: Faculty services have a significant impact on satisfaction.
H2: Academic aspects have a significant impact on satisfaction.
H3: Reputation has a significant impact on satisfaction.
H4: Heritage has a significant impact on satisfaction.
H5: Trust has a significant impact on satisfaction.
H6: Service quality has a significant impact on satisfaction.
H7: Heritage has a significant impact on reputation
H8: Trust has a significant impact on reputation.
H9: Service quality has a significant impact on reputation.

3.2 Research Methodology

Quantitative methods are used in data collection methods to measure the representativeness of samples, which in turn can easily and accurately respond to the entire population (Creswell, 2014). Quantitative research methods provide specific answers to research questions in methods and measurements determined by statistical tools and techniques (Johnson et al., 2001). The researcher used quantitative research methods to conduct an electronic questionnaire survey of art undergraduates from three local ethnic colleges in Sichuan. Collect data and analyze important factors that affect student satisfaction. The questionnaire is divided into three sections: screening, demographic, and measurement. To analyze all nine hypotheses, a 5-point Likert scale was used to measure five proposed variables, ranging from strongly disagree (1) to strongly agreed (5). In the pilot test, 45 respondents were evaluated as experts on the objective consistency index of the project and a pilot test.

An examination of Item-Objective Congruence (IOC) is determined by three experts, with all items surpass acceptable value of 0.6. Cronbach's alpha reliability was used for the pilot test to clarify faculty services, academic aspects, reputation, heritage, trust, service quality, and student satisfaction. Tavakol and Dennick (2011) pointed out that the Alpha coefficient detected by the measurement tool is greater than or equal to 0.60, so the structure can be used. The higher the Alpha coefficient, the better the more reliable the structure. After passing the test, the questionnaire was sent to the target audience, and 500 valid responses were obtained. It is then analyzed by SPSS AMOS software. Confirmatory Factor Analysis (CFA) was used to ensure the validity and reliability of the model. Use structural equation models (SEMs) to test the effects between variables.

3.3 Population and Sample Size

According to Clark-Carter (2009), the target population consists of people with common behavior toward specific elements. Hair et al. (2007) mention that the target population is an important and complete set of elements related to the research project. The target population of this paper is three local ethnic undergraduate colleges in Sichuan. The minimum sample size for structural equation models is 425. Five hundred sixty e-questionnaires were distributed, and 500 valid e-questionnaires were collected.

3.4 Sampling Technique

The researchers used the target sampling method to select the target population. Judgmental sampling is used to select undergraduate students in three universities in Sichuan, China. The stratified sampling method was used to distribute questionnaires to the target population to collect effective samples for undergraduate art students in local ethnic colleges and universities in Sichuan. This is shown in Table 1. Electronic questionnaires were distributed online using a convenience sampling.

Table 1: Sample Units and Sample Size

The names of ECULJ	Population Size	Proportional Sample Size
First grade	1092	141
Second grade	1020	132
Third grade	903	117
Fourth grade	855	110
Total	**3870**	**500**

Source: Constructed by author

Table 2: Demographic Profile

Demographic and General Data (N=500)		Frequency	Percentage
ECULJ	Sichuan Minzu College	255	51%
	Xichang University	138	27.6%
	Aba Teachers University	107	21.4%
Blended Learning Format	Webcast	307	61.4%
	Software or mini programs	41	8.2%
	Website Resource Course	103	20.6%
	The others	49	9.8%

Source: Constructed by author

4. Results and Discussion

4.1 Demographic Information

The target for population statistics is 500 people, and the specific data is shown in Table 2. Among them, the number of participants in Sichuan Minzu College is 255, and the total population proportion is 51%; Xichang University had 138 participants, accounting for 27.6% of the total population; Aba Teachers University had 107 participants, accounting for 21.4 % of the total. Among these 500 people, 500 participated in the blended learning format: 307 people Webcast, accounting for 61.4% of the total number; 41 people who participated in Software or mini-programs (e.g., QQ, Tencent Meeting, WeChat, DingTalk, etc.), 103 participants in Website Resource Course, accounting for 20.6%% of the total; The others 49, or 9.8% of the total, were the same.

4.2 Confirmatory Factor Analysis (CFA)

In Table 3 of this study, the reliability of the questionnaire was evaluated using Cronbach's Alpha. The alpha coefficient values in the table were all above 0.6, indicating a high level of reliability. To assess the construct validity, Byrne (2011) suggested using Confirmatory Factor Analysis (CFA) to confirm the convergence and discriminant validity. The convergence effectiveness of the conceptual models was tested using factor loading, average variance extracted (AVE), and composite reliability (CR) (Hair et al., 2013). The results in Table 3 indicated that all variables had factor load values greater than 0.5 and p-values less than 0.05, which were considered acceptable (Hair et al., 2013). Moreover, the CR value of all variables was greater than 0.7, and the AVE value of all variables was greater than 0.5, further confirming the questionnaire's reliability and validity

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
Faculty Service (FS)	Martirosyan (2015)	4	0.835	0.727-0.774	0.836	0.560
Academic Aspects (AA)	Ali et al. (2016)	7	0.901	0.710-0.780	0.902	0.567
Reputation (R)	Ali et al. (2016)	5	0.851	0.717-0.749	0.851	0.534
Heritage (H)	Panda et al. (2019)	3	0.780	0.713-0.776	0.782	0.545
Trust (T)	Panda et al. (2019)	6	0.886	0.726-0.793	0.887	0.567
Service Quality (SQ)	Panda et al. (2019)	8	0.916	0.658-0.808	0.905	0.544
Satisfaction (SS)	Panda et al. (2019)	5	0.853	0.702-0.760	0.855	0.541

To assess the consistency of the measurement model with the observed data, confirmatory factor analysis (CFA) was employed, as recommended by Brown (2015). Meanwhile, Ainur et al. (2017) proposed using the Goodness-of-Fit (GoF) measure to evaluate the fit of the measurement model. The results in Table 4 indicate that the GoF values, including CMIN/DF = 1.366, GFI = 0.916, AGFI = 0.903, NFI = 0.929, CFI = 0.980, TLI = 0.978, and RMSEA = 0.027, were all within an acceptable range.

Table 4: Goodness of Fit for Measurement Model

Fit Index	Acceptable Criteria	Statistical Values
CMIN/DF	< 3.00 (Hair et al., 2006)	1.366
GFI	≥ 0.85 (Sica & Ghisi, 2007)	0.916
AGFI	≥ 0.85 (Schermelleh-	0.903
	Engel et al., 2003)	
NFI	≥ 0.90 (Hair et al., 2006)	0.929
CFI	≥ 0.90 (Hair et al., 2006)	0.980
TLI	≥ 0.90 (Hair et al., 2006)	0.978
RMSEA	< 0.05 (Hu & Bentler, 1999)	0.027
Model Summary		**In harmony with empirical data**

Remark: CMIN/DF = The ratio of the chi-square value to degree of freedom, GFI = Goodness-of-fit index, AGFI = Adjusted goodness-of-fit index, NFI = Normed fit index, CFI = Comparative fit index, TLI = Tucker-Lewis index and RMSEA = Root mean square error of approximation.

According to Fornell and Larcker (1981), discriminant validity is established when the square root of the average variance extracted (AVE) is greater than the correlation

coefficients between the constructs. In Table 5 of this study, the square root of all AVE values was greater than the corresponding inter-construct correlation coefficients, confirming the discriminant validity of the measurement model.

Table 5: Discriminant Validity

	FS	AA	R	H	T	SQ	SS
FS	**0.748**						
AA	0.312	**0.753**					
R	0.375	0.246	**0.731**				
H	0.361	0.360	0.330	**0.738**			
T	0.352	0.337	0.350	0.367	**0.753**		
SQ	0.314	0.302	0.313	0.370	0.358	**0.738**	
SS	0.474	0.437	0.425	0.455	0.459	0.463	**0.736**

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 present study utilized Structural Equation Modeling (SEM), a statistical method that analyzes the relationship between variables based on a covariance matrix (Zhang et al., 2007). The Goodness Fit Index (GFI) values are presented in Table 6, which include CMIN/DF = 1.920, GFI = 0.873, AGFI = 0.852, NFI = 0.901, CFI = 0.950, TLI = 0.945, and RMSEA = 0.043. These statistical values indicate that the proposed model fits the data well, within an acceptable range.

Table 6: Goodness of Fit for Structural Model

Index	Acceptable	Statistical Values
CMIN/DF	< 3.00 (Hair et al., 2006)	1.920
GFI	≥ 0.85 (Sica & Ghisi, 2007)	0.873
AGFI	≥ 0.85 (Schermelleh-Engel et al., 2003)	0.852
NFI	≥ 0.90 (Hair et al., 2006)	0.901
CFI	≥ 0.90 (Hair et al., 2006)	0.950
TLI	≥ 0.90 (Hair et al., 2006)	0.945
RMSEA	< 0.05 (Hu & Bentler, 1999)	0.043
Model Summary		In harmony with Empirical data

Remark: CMIN/DF = The ratio of the chi-square value to degree of freedom, GFI = Goodness-of-fit index, AGFI = Adjusted goodness-of-fit index, NFI = Normed fit index, CFI = Comparative fit index, TLI = Tucker-Lewis index and RMSEA = Root mean square error of approximation.

4.4 Research Hypothesis Testing Result

Structural equation modeling combines the factor analysis measurement structures with a path analysis framework by incorporating latent and unobserved structures. This modeling approach enables the distinction between

measurement models and structural models, as noted by Lefcheck (2021). The measurement model is derived from the observed variables for the measurement concept, while the structural model establishes the relationship between the configurations and incorporates the mediation path. A structural equation model uses Path coefficients to measure the correlation between external and internal potential variables. The hypothesis testing results are presented in Table 7, which supports H1, H2, H3, H4, H5, H6, H7, and H8, but not H9. The hypothesis testing results are further explained in Table 7.

Table 7: Hypothesis Results of the Structural Equation Modeling

Hypothesis	(β)	t-Value	Result
H1: FS→SS	0.362	6.976*	Supported
H2: AA→SS	0.242	5.142*	Supported
H3: R→SS	0.348	5.680*	Supported
H4: H→SS	0.253	4.921*	Supported
H5: T→SS	0.289	5.935*	Supported
H6: SQ→SS	0.186	4.066*	Supported
H7: H→R	0.219	2.424*	Supported
H8: T→R	0.254	2.961*	Supported
H9: SQ→R	0.036	-0.622	Not Supported

Note: *** $p<0.001$, ** $p<0.01$, * $p<0.05$
Source: Created by the author

H1: Faculty service has a significant impact on colleges or universities SS. The normalized path coefficient is 0.362, and the t-value is 6.976*. This means that faculty service leads to student satisfaction.

H2: Academic aspects have a significant impact on colleges or universities SS. The normalized path coefficient is 0.242, and the t-value is 5.142*. This means that the academic aspect leads to student satisfaction.

H3: Reputation has a significant impact on colleges or universities SS. The normalized path coefficient is 0.348, and the t-value is 5.680*. This means that reputation leads to student satisfaction.

H4: University Heritage has a significant impact on colleges or universities SS. The normalized path coefficient is 0.253, and the t-value is 4.921*. This means that the university heritage leads to student satisfaction.

H5: Trust has a significant impact on colleges or universities SS. The normalized path coefficient is 0.289, and the t-value is 5.935*. This means that trust leads to student satisfaction.

H6: Service quality has a significant impact on colleges or universities SS. The normalized path coefficient is 0.186, and the t-value is 4.066*. This means that the service quality leads to student satisfaction.

H7: University Heritage has a significant impact on colleges or universities. R. The normalized path coefficient is 0.219, and the t-value is 2.424*. This means that a university's heritage leads to reputation.

H8: Trust has a significant impact on colleges or universities. R. The normalized path coefficient is 0.254, and the t-value is 2.961*. This means that trust leads to reputation.

H9: Service quality has a significant impact on colleges or universities. R. The normalized path coefficient is 0.036, and the t-value is -0.622*. This means that the service quality does not lead to reputation. H9 was rejected.

5. Conclusion and Recommendation

5.1 Conclusion and Discussion

This study focuses on the factors influencing the satisfaction of undergraduate art students in three local ethnic colleges and universities in Sichuan. This study uses hypotheses as a conceptual framework to explore the significant effects of FS, AA, R, H, T, and SQ on SS. Questionnaires were distributed to study subjects to collect valid data. Confirmatory factor analysis (CFA) to test the validity and reliability of conceptual models. The structural equation model (SEM) was used to analyze the influencing factors of student satisfaction.

The study describes the findings below. FS and T have the most direct and greatest impact on SS. The quality of faculty service plays a crucial role in shaping student satisfaction levels, surpassing the impact of other factors like physical facilities, administrative services, and campus safety (Standifird et al. , 2011). According to Samad et al. (2017) the study, universities can enhance student satisfaction by prioritizing efforts to improve the quality of faculty service. The level of institutional trust is a crucial factor in predicting student satisfaction with the college experience (Shu & Liu, 2019). The results show that the quality of teacher services and institutional trust are the main factors affecting students' satisfaction with blended learning. The influence of AA, R, H, and SQ on SS is also very large, and the researcher's hypothesis is valid.

5.2 Recommendation

The researcher found that in Sichuan's local ethnic colleges, the key factors affecting the blended learning of undergraduate art students are faculty services, institutional trust, academic aspects, institutional reputation, institutional heritage, and service quality. Therefore, it is recommended that local ethnic colleges and universities in Sichuan pay attention to these aspects to improve student satisfaction and the competitiveness of schools. To display literature and the actual demand, the management, and relevant personnel must consider and promote the school's teacher service, institutional trust, academic aspects, institutional reputation,

and service quality-related construction. Faculty academic staff and related administrators must be motivated and developed to serve students through effective means and methods. Darolia and Koedel's (2011) study results highlight the significance of faculty service in fostering student satisfaction. They imply that universities should prioritize enhancing faculty service as a fundamental element of their strategy to boost student satisfaction. The basis for establishing institutional trust lies in effective communication, prompt customer service, and a dedication to meeting the needs of students (Yazdanparast et al., 2017). Based on the findings, Marshall and Creswell (2017) recommended that higher education institutions prioritize establishing a trustworthy relationship with their students. In summary, the relevant management and management bodies of higher education institutions should focus on measuring student satisfaction to achieve the university's success.

5.3 Limitation and Further Study

The limitation of this study is that the population and sample used art students from local ethnic undergraduate colleges in Sichuan, and the results of the analysis may differ in the specific higher education student satisfaction study by different levels of universities, different professional fields, and different regions. Further research can study the structural patterns of student satisfaction in other educational institutions, such as FS, AA, R, H, T, SQ, and other influencing factors. In addition, in future research, the factors of student satisfaction and blended learning can be more specific and in-depth research. The specific embodiment and work of FS, T, AA, R, H, SQ, etc., can be combined with student satisfaction to promote the development of blended learning in colleges and universities and further improve overall education.

References

Abdullah, F. (2005). HEdPERF versus SERVPERF: the quest for ideal measuring instrument of service quality in higher education sector. *Quality Assurance in Education, 13*(4), 305-328. https://doi.org/10.1108/09684880510626584

Abdullah, F. (2006). The development of HEdPERF: a new measuring instrument of service quality for the higher education sector. *International Journal of Consumer Studies 30*(6), 569-581. https://doi.org/10.1111/j.1470-6431.2005.00480.x

Ahmed, I., Nawaz, M. M., Ahmad, Z., Ahmad, Z., Shaukat, M. Z., Usman, A., Rehman, W. U., & Ahmed, N. (2010). Does service quality affect students' performance? Evidence from institutes of higher learning. *African Journal of Business Management, 4*(12), 2527-2533.

Ainur, A. K., Deni, S., Zeinab, J., & Yep, B. W. (2017). Sample size and non-normality effects on goodness of fit measures in structural equation models. *Pertanika Journal of Science and Technology, 25*(2), 575-586.

Ali, F., Zhou, Y., Hussain, K., Nair, P. K., & Ragavan, N. A. (2014). Does higher education service quality effect student satisfaction, image, and loyalty? A study of international students in Malaysian public universities. *Quality Assurance in Education, 24*(1), 70-94. https://doi.org/10.1108/qae-02-2014-0008

Ali, F., Zhou, Y., Hussain, K., Nair, P. K., & Ragavan, N. A. (2016). Does higher education service quality effect student satisfaction, image, and loyalty? A study of international students in Malaysian public universities. *Quality Assurance in Education, 24*(1), 70-94.

Alves, H., & Raposo, M. (2007). Conceptual Model of Student Satisfaction in Higher Education. *Total quality management & business excellence, 18*(5), 571-588. https://doi.org/10.1080/14783360601074315

Arif, S., Ilyas, M., & Hameed, A. (2013). Student satisfaction and impact of leadership in private universities. *The TQM Journal 25*(4), 1754-2731. https://doi.org/10.1108/17542731311314881

Astin, A. W. (1999). Student involvement: a development theory for higher education. *Journal of College Student Development, 40*(5), 518-529.

Berry, L. L. (2000). Cultivating service brand equity. Journal of the *Academy of Marketing Science, 28*(1), 128-137. https://doi.org/10.1177/0092070300281012

Brodie, R. J., Whittome, J. R., & Brush, G. J. (2009). Investigating the service brand: a customer value perspective. *Journal of Business Research, 62*(3), 345-355. https://doi.org/10.1016/j.jbusres.2008.06.008

Bromley, D. B. (2002). An examination of issues that complicate the concept of reputation in business studies. *International Studies of Management & Organization, 32*(3), 65-81. https://doi.org/10.1080/00208825.2002.11043666

Brown, R. M., & Mazzarol, T. W. (2009). The importance of institutional image to student satisfaction and loyalty within higher education. *Higher Education 58*(1), 81-95. https://doi.org/10.1007/s10734-008-9183-8

Brown, T. A. (2015). *Confirmatory factor analysis for applied research* (2nd ed.). Guilford publications.

Bryk, A. S., & Schneider, B. (2004). Trust in Schools: A Core Resource for Improvement. *Contemporary Sociology, 33,* 368-369.

Bulotaite, N. (2003). University heritage—an institutional tool for branding and marketing. *Higher Education in Europe, 28*(4), 449-454. https://doi.org/10.1080/03797720320000170417

Byrne, B. M. (2011). *Structural equation modeling with AMOS: Basic concepts, applications, and programming* (2nd ed.). Routledge/Taylor & Francis Group.

Chadwick, K., & Ward, J. (1987). Determinants of consumer satisfaction with education: implications for college and university administrators. *College and University, 62,* 236-246.

Clark-Carter, D. (2009). *Quantitative Psychological Research: The Complete Student's Companion: The Complete Student's Companion* (1st ed.). Psychology Press.

Creswell, J. W. (2014). *Research design: qualitative, quantitative, and mixed methods approach* (4th ed.). SAGE Publications.

Darby, M. R., & Karni, E. (1973). Free competition and the optimal amount of fraud. *The Journal of Law and Economics, 16*(1), 67-88. https://doi.org/10.1086/466756

Darolia, R., & Koedel, C. (2011). Faculty Service and Student Satisfaction: The Role of Institutional Demographics. *Journal of Administrative and Economic Sciences, 9*(1), 459-477.

Delgado-Ballester, E., & Luis Munuera-Alemán, J. (2001). Brand trust in the context of consumer loyalty. *European Journal of Marketing, 35*(11/12), 1238-1258.

Durvasula, S., Lysonski, S., & Madhavi, A. D. (2011). Beyond service attributes: do personal values matter?. *Journal of Services Marketing, 25*(1), 33-46.

Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of marketing research, 18*(1), 39-50. https://doi.org/10.1177/002224378101800104

Grönroos, C. (1984). A service quality model and its marketing implications. *European Journal of Marketing, 18*(4), 36-44. https://doi.org/10.1108/eum0000000004784

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (6th ed). Pearson Prentice Hall.

Hair, J. F., Celsi, M. W., Oritinau, D. J., & Bush, R. P. (2013). *Essentials of Marketing Research* (1st ed.). John Wiley & Sons.

Hair, J. F., Money, A. H., Samouel, P., & Page, M. (2007). Research Methods for Business. *Education + Training, 49*(4), 336-337. https://doi.org/10.1108/et.2007.49.4.336.2

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal, 6*(1), 1-55. https://doi.org/10.1080/10705519909540118

Johnson, M. D., Gustafsson, A., Andreassen, T. W., Lervik, L., & Cha, J. (2001). The evolution and future of national customer satisfaction index models. *Journal of Economic Psychology, 22,* 217-245. https://doi.org/10.1016/s0167-4870(01)00030-7

Juillerat, S., & Schreiner, L. A. (1996). The role of student's satisfaction in the assessment of institutional effectiveness. *Assessment Update, 8*(1), 8-9. https://doi.org/10.1002/au.3650080108

Kanji, G. K., Tambi, A. M. A., & Wallace, W. (1999). A comparative study of quality practice in higher education institutions in the US and Malaysia. *Total Quality Management, 10*(3), 357-371. https://doi.org/10.1080/0954412997884

Kotler, P., & Keller, K. (2012). *Marketing Management* (1st ed.). Prentice Hall.

Kuo, Y., & Ye, K. (2009). The causal relationship between service quality, corporate image and adults' learning satisfaction and loyalty: a study of professional training programmes in a Taiwanese vocational institute. *Total Quality Management, 20* (7), 749-762. https://doi.org/10.1080/14783360903037085

Lai, F., Griffin, M., & Babin, B. J. (2009). How quality, value, image, and satisfaction create loyalty at a Chinese telecom. *Journal of Business Research, 62*(10), 980-986. https://doi.org/10.1016/j.jbusres.2008.10.015

Lefcheck, J. (2021). Structural equation modeling in R for ecology and evolution. *Methods in Ecology and Evolution, 1*(2), 573-579.

Marshall, S. M., & Creswell, J. W. (2017). The Role of Trust in Higher Education: Its Impact on Student Satisfaction and Engagement. *Journal of Higher Education Policy and Management, 1*(3), 183-197.

Martirosyan, N. (2015). An examination of factors contributing to student satisfaction in Armenian higher education. *International Journal of Educational Management, 29*(2), 177-191.

Mccollough, M. A., & Gremler, D. D. (1999). Guaranteeing student satisfaction: an exercise in treating students as customers. *Journal of Marketing Education, 21*(2), 118-130. https://doi.org/10.1177/0273475399212005

Navarro, M. M., Iglesias, M. P., & Torres, P. R. (2005). A new management element for universities: satisfaction with the offered courses. *International Journal of Educational Management, 19*(6), 505-526.

Nelson, P. (1970). Information and consumer behavior. *Journal of Political Economy, 78*(2), 311-329. https://doi.org/10.1086/259630

Nguyen, B., Yu, X., Melewar, T. C., & Hemsley-Brown, J. (2016). Brand ambidexterity and commitment in higher education: an exploratory study. *Journal of Business, 26*(1), 3105-3112. https://doi.org/10.1016/j.jbusres.2016.01.026

Nguyen, N., & Leblanc, G. (2001). Image and reputation of higher education institutions in students' retention decisions. The *International Journal of Education Management, 15*(6), 303-311. https://doi.org/10.1108/eum0000000005909

Panda, S., Pandey, S. C., Bennett, A., & Tian, X. (2019). University brand image as competitive advantage: a two-country study. *International Journal of Educational Management, 33*(2), 234-251. https://doi.org/10.1108/ijem-12-2017-0374

Parasuraman, A., Zeithmal, V., & Berry, L. (1988). SERVQUAL: a multiple item scale for measuring consumer perceptions of service quality. *Journal of Retailing, 64*(1), 12-40.

Rowley, J. (1997). Beyond service quality dimensions in higher education and towards a service contract. *Quality Assurance in Education, 5*(1), 7-14. https://doi.org/10.1108/09684889710156530

Samad, S., Kasim, R. S. R., & Isa, M. F. M. (2017). Faculty Service and Student Satisfaction: An Exploratory Study in a Malaysian Private University. *Journal of Marketing for Higher Education, 9*(1), 243-258.

Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of psychological research online, 8*(8), 23-74.

Shank, M. D., Walker, M., & Thomas, H. (1995). Understanding professional service expectations: Do we know what our students expect in a quality education?. *Journal of Professional Service Marketing, 13*(1), 71-89. https://doi.org/10.1300/j090v13n01_08

Shu, X., & Liu, J. (2019). The Role of Institutional Trust in Shaping Students' Satisfaction with College. *Journal of College Student Development, 31*(6), 1-16.

Sica, C., & Ghisi, M. (2007). The Italian versions of the Beck Anxiety Inventory and the Beck Depression Inventory-II: Psychometric properties and discriminant power. In M.A. Lange (Ed.), *Leading - Edge psychological tests and testing research* (pp. 27-50). Springer.

Sirdeshmukh, D., Singh, J., & Sabol, B. (2002). Consumer trust, value, and loyalty in relational exchanges. *Journal of Marketing, 66*(1), 15-37. https://doi.org/10.1509/jmkg.66.1.15.18449

Standifird, S. S., Mills, M. J., & Baker, W. E. (2011). Faculty Service: A Key Driver of Student Satisfaction. *Journal of Marketing for Higher Education, 10*(2), 7-22.

Subrahmanyam, A., & Shekhar, B. R. (2017). Where do you find loyalty in the contemporary university scene?. *Journal of Applied Research in Higher Education, 9*(3), 378-393. https://doi.org/10.1108/jarhe-01-2016-0004

Sultan, P., & Wong, H. Y. (2011). Service quality in a higher education context: antecedents and dimensions. *International Review of Business Research Papers, 7*(2), 755-784.

Sultan, P., & Wong, H. Y. (2012). Service quality in a higher education context: an integrated model. *Asia Pacific Journal of Marketing and Logistics 24*(5), 755-784.

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International journal of medical education, 2,* 53-55. https://doi.org/10.5116/ijme.4dfb.8dfd

Tinto, V. (1975). Dropouts from higher education: a theoretical synthesis of recent research. *Review of Educational Research, 45*(1), 89-125. https://doi.org/10.3102/00346543045001089

Urde, M., Greyser, S. A., & Balmer, J. M. (2007). Special Issue Papers Corporate brands with a heritage. *Journal of Brand Management, 15*(1), 4-19. https://doi.org/10.1057/palgrave.bm.2550106

Yazdanparast, A., Casidy, R., & Wasti, N. (2017). Trust and satisfaction in higher education: A review of literature. *Journal of Marketing for Higher Education, 2*(3),174-193.

Yeo, R. K. (2008). Brewing service quality in higher education: characteristics of ingredients that make up the recipe. *Quality Assurance in Education, 16*(3), 266-286. https://doi.org/10.1108/09684880810886277

Zhang, Y., Xu, Y., Shang, L., & Rao, K. (2007). An investigation into health informatics and related standards in China. *International Journal of Medical Informatics, 76*(8), 614-620. https://doi.org/10.1016/j.ijmedinf.2006.05.003