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Factors Impacting on Sophomores' Satisfaction and Loyalty Toward Education Quality in Higher Vocational Colleges in China

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Abstract

Purpose: This research paper aims to investigate the key influencers that significantly impact student satisfaction and loyalty toward education quality in higher vocational colleges in Chengdu, China. The conceptual framework proposed a causal relationship among academic aspects, reputation, information quality, instructor quality, perceived value, satisfaction, and loyalty. **Research design, data, and methodology:** The researcher used the quantitative method (n=500) to distribute questionnaires to sophomore students in higher vocational college. The sampling method includes judgmental sampling in selecting sophomore students at four higher vocational colleges, stratified random sampling is to proportionate total number of students into sample size in each subgroup, and convenient sampling in collecting data and distributing surveys online and offline. The item-objective congruence (IOC) index and Cronbach's Alpha in pilot study (n=30) was conducted for validity and reliability testing. The Structural Equation Model (SEM) and Confirmatory Factor Analysis (CFA) were used for the data analysis, including model fit, reliability, and validity of the constructs. **Results:** The results explicated that reputation, information quality, instructor quality, and perceived value significantly impact satisfaction and loyalty, except for academic aspects. **Conclusions:** Higher vocational schools should focus on improving information technology, improving students' professional and practical abilities, and strengthening the timely interaction between students and teachers.

Keywords : Higher Education, Academic Aspects, Information Quality, Satisfaction, Loyalty

JEL Classification Code: E44, F31, F37, G15

1. Introduction

Higher education is a critical driver of a nation's cultural and economic growth and the cultivation of active citizenship and ethical values among students (UNESCO, 2020). However, the quality of higher education is a persistent issue that requires feasible ways to improve (Ewell, 2015). Quality can be conceptualized in various ways, such as meeting design standards, fulfilling client expectations, achieving program or institutional effectiveness, fostering continuous improvement, and encompassing dependability, durability, and aesthetics (Garvin, 1988).

Modern approaches to quality assurance in higher education include accreditation, program evaluations, assessment, outcomes movement, Total Quality Management (TQM), and accountability and performance

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indicators reporting (Lynch & Modares, 2017). However, the dimensions and causes of students' perceptions of quality in higher education remain a subject of debate and research (Sultan & Wong, 2011).

Assessing and enhancing service quality in higher education is challenging because students can only evaluate educational services after experiencing them (Paraskevas & Buhalis, 2005). The changing demographics of students globally, including increased enrolment, diversity, and demand for stronger school-business connections, present additional challenges (Biggs & Tang, 2011). All stakeholders in higher education, including students, parents, society, and governments, are increasingly emphasizing the importance of quality education (Dunn et al., 2010).

Improving the quality of higher education is essential for the growth and development of a nation. A multifaceted approach that considers various quality dimensions and engages all stakeholders is necessary to achieve this goal.

The expansion of higher education in China was affected by several internal shifts in the 1980s. These shifts included government reorganization, financial and fiscal reforms, etc.

The Chinese government is aggressively pushing and creating a comprehensive framework for assessing and improving university performance despite the relatively short history of quality assurance in higher education.

Following the findings of the China National Bureau of Statistics (CNBS, 2022): The number of Higher Education students in China reached 32.9 million in 2020, as shown in Figure 1; Number of Higher Education students in Chengdu, China, reached 0.98 million in 2019 and is projected to surpass 1 million in 2020 as shown in Figure 1. Both metrics are rising. Regarding this topic, China's higher education must take a step forward regarding quality.

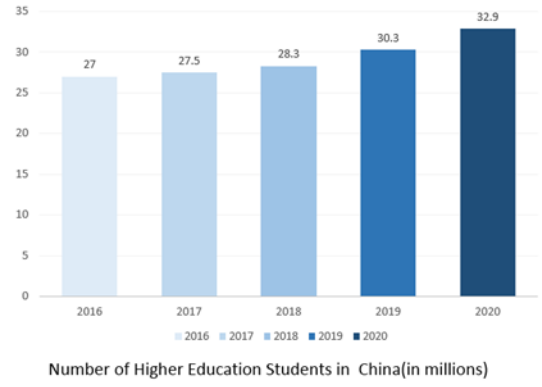

Figure 1: Number of Higher Education Students in China
Source: Source: CNBS. (2022). *Number of Higher Education Students in China.* https://data.stats.gov.cn/easyquery.htm?cn=C01

2. Literature Review

2.1 Academic Aspects

Academic activities are at the heart of higher education (Angell et al., 2008); this includes qualified and engaging instructors, the teaching of practical skills, regular access to teaching staff, a variety of library books and journals, easily transferable skills, a reputable degree program, and adequate computing and web facilities. It was defined that activities of academic aspects are about academic support, management, teaching, feedback, organization, and assessment, learning resources, and personal development (Fernandes & Ross, 2013).

The current research results support the further strengthening of the important role of academia in the value-loaded university environment (Sultan & Wong, 2013). Thomas and Galambos (2004) found that the experience of academic components and amenities were important predictors of student happiness at a public institution in America. In addition to scholastic factors, Rowley (1996) believed that other factors, such as the learning environment, students' possibilities for self-improvement, facilities and services, and other factors, would also impact students' satisfaction levels. Academics will be more positive if they can use web technologies to gain knowledge and improve their image (Mewburn & Thomson, 2013).

H1: Academic aspects have a significant impact on satisfaction.

2.2 Reputation

The study defined organizational reputation as stakeholder judgments of the company's power that must live up to their expectations (Deephouse, 2000). In business conduct, customers' positive opinions about what defines one brand from another are characterized as brand reputation, directly affecting customers' willingness to pay (Bhattacharya & Elsbach, 2002). The term "reputation" refers to a member of a social group's standing in the eyes of others who are part of that group (Bromley, 2002). A favorable brand image has significantly contributed to a good reputation for the institution. The image developed in stakeholders' minds is known as the university brand image. On the other hand, reputation refers to the degree to which stakeholders trust or do not trust an institution's ability to meet stakeholders' expectations (Nguyen & LeBlanc, 2001b). As can be observed, the most often cited features of the service are accessible to qualified instructors, a cost-effective education, and a reputable institution at which to get one's degree (Angell et al., 2008). Thus, this study put forward a hypothesis:

H2: Reputation has a significant impact on satisfaction.

2.3 Information Quality

The semantic success; and utilization, user happiness, and individual impacts of information are also evaluated (DeLone & McLean, 2003). The quality of information is defined as "the quality given through the Learning Management System" (Ghazal et al., 2017). In this context, information quality means the system's ability to convey data meaning (Wang & Lin, 2012). In empirical research, Bharatia and Chaudhury (2004) concluded that the quality of the information and the system strongly predicts satisfaction with the decision-making process. In addition, Roca et al. (2006) found that web quality positively impacted user satisfaction in the context of online tax-filing systems (Chen, 2010). Generally, the quality of the system, the quality of the material, and the service are three fundamental antecedents that define pleasure and predict the desire to continue using e-learning in academic libraries. Hence a hypothesis is followed:

H3: Information quality has a significant impact on satisfaction.

2.4 Instructor Quality

The role of instructors in either conventional learning methods or E-learning has long been seen as one of the most important variables in determining the overall effectiveness of the learning process (Seok, 2008). The quality of teachers is evaluated based on how well they integrate their technical and pedagogical expertise into the delivery of online courses using various e-learning platforms (Mtebe & Raphael, 2018). Several studies have established a clear correlation between the quality of delivery that an instructor provides (responsiveness, enthusiasm, attitudes, and communication style), on the one hand, and the degree of pleasure that users report having with an e-learning system, on the other (Lee et al., 2018; Liaw & Huang, 2013). Very few studies have analyzed the instructors' and students' perceptions of the usefulness and utility of the course (Rughoobur-Seetah & Hosanoo, 2021). According to the previous studies, a hypothesis is suggested:

H4: Instructor quality has a significant impact on satisfaction.

2.5 Perceived Value

Zeithaml (1988) defines perceived value as "the comprehensive assessment made by a customer of the utility of a product, taking into account their impressions of what is received and what is promised." In the existing literature, perceived value has been defined as the cost-benefit trade-off between "utility" and "price" (Jiménez-Castillo et al., 2013). Online communication has become more efficient due to technological advancements since it gets a bigger share of the market (Momen et al., 2019), and communication is key to any firm's success (Besseah et al., 2017). For students in the Higher Education sector, the blogs of universities are a better source of information than institution websites (Momen et al., 2019). According to Clemes et al. (2013), perceived value is also a factor in job satisfaction. Snoj et al. (2004) provide further context for this comparison by elaborating on the concept of value as being derived from the composite usefulness obtained in contrast to the sacrifices made to get the goods or services in question. In higher education, the trade-off approach has been advocated for examining students' perceived value, as it represents an overall assessment of the utility of education services compared to alternative methods of achieving goals (Dlačić et al., 2014). Thereby, a hypothesis is indicated:

H5: Perceived value has a significant impact on satisfaction.

2.6 Loyalty

Loyalty is a critical variable in many areas of study, including marketing, consumer behavior, and organizational behavior. It refers to the tendency of customers or employees to remain committed to a particular brand or organization. This literature review will explore the current research on the loyalty variable and its implications for various fields. Nitzan and Libai (2011) explored the impact of social factors on customer retention, as documented in the Journal of Marketing. The authors introduced a novel conceptual framework that integrated traditional customer loyalty models with social influence. They argued that social factors, including peer influence and social support, could significantly influence customer retention rates. Nitzan and Libai's research sought to shed light on the complex interplay between social forces and consumer behavior, with potential implications for marketers seeking to maximize customer satisfaction and loyalty. A study investigates the relationship between green marketing and customer loyalty. The findings suggest that greenwash, or false environmental claims, can decrease customer loyalty by causing confusion and perceived risk (Chen & Chang, 2013). Accordingly, this research indicates that:

H6: Satisfaction has a significant impact on loyalty.

2.7 Satisfaction

Customer satisfaction is a complex and essential concept critical to a company's success. It reflects a customer's evaluation, affection, or emotional response to the products or services they have received. Meeting or exceeding customer expectations, providing a positive customer experience, and considering the customer's emotional state are all factors that can contribute to high levels of satisfaction. Companies prioritizing customer satisfaction are more likely

to retain customers, build brand loyalty, and succeed long-term (Zhao et al., 2022).

According to Oliver and Swan (1988), customer satisfaction is a feeling of evaluation, affection, or emotion that evolves due to a customer's interaction with products or services. In the words of Zhang et al. (2020), "customer satisfaction" denotes a business's response to meeting or exceeding a customer's expectations. It reflects an individual's favorable or unfavorable emotional reactions to a product or service, contingent on how well it meets their expectations (Wiers-Jenssen et al., 2002).

Khan and Yildiz (2020) conducted a study to assess student satisfaction in Iraq's Kurdistan region, revealing that the universities' reputation is primarily based on job prospects and a welcoming climate. Budur et al. (2018) also conducted a comprehensive study on factors that influence students' university choices. They found that scientific activities and campus amenities were crucial in building the university's reputation and creating positive word of mouth among students.

Similarly, Demir and Guven (2017) suggest that the accreditation of an ISO 9001 quality management system can significantly impact student satisfaction. These findings highlight that job prospects, campus amenities, scientific activities, and quality management systems can significantly impact a university's reputation and influence student satisfaction. As such, universities should strive to invest in these areas to maintain a positive reputation and attract and retain students.

3. Research Methods and Materials

3.1 Research Framework

The conceptual framework defined the study the researcher desired (Plano Clark, 2017). Hair et al. (2010) also noted that the conceptual framework outlines variables and their relationships to the researched constructs. McGaghie et al. (2001) demonstrated that the framework served two purposes: identifying variables and clarifying the relationships between variables. In addition to the statement above, the conceptual framework established the stage for presenting specific research, which was the study's objective. A conceptual framework is a paradigm properly portraying how a researched phenomenon develops naturally (Camp, 2001). A conceptual framework provides a reader-friendly visual aid for conducting research (Imenda, 2017). So the conceptual framework of this research was obtained by summarizing previous literature and sorting out various relative variables, shown in Figure 2.

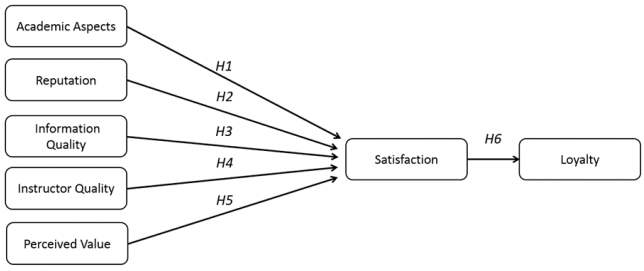

Figure 2: Conceptual Framework

H1: Academic aspects have a significant impact on satisfaction.
H2: Reputation has a significant impact on satisfaction.
H3: Information quality has a significant impact on satisfaction.
H4: Instructor quality has a significant impact on satisfaction.
H5: Perceived value has a significant impact on satisfaction.
H6: Satisfaction has a significant impact on loyalty.

3.2 Research Methodology

Using the quantitative multistage sampling method, the researchers distributed the questionnaire online to students studying in four higher vocational colleges in Chengdu, China. The survey had three parts: screening questions, 5-point Likert scale questions to measure five proposed variables, and demographic questions. Pilot testing was conducted for an expert rating of the item-objective congruence (IOC) index and 30 respondents. Cronbach's Alpha approach was used for validity and reliability testing. 500 accepted responses were collected and analyzed using SPSS AMOS 26.0. Confirmatory Factor Analysis (CFA) was used to test convergence accuracy and validation. The structural Equation Model (SEM) was used to examine the effect of variables.

3.3 Population and Sample Size

The target population of this study is sophomore students in higher vocational colleges, who are more familiar with school learning than first-year students. Kline (2011) indicated that the minimum sample size is recommended to be 200. To process the data screening and analysis, a total of 500 questionnaires were collected for this study.

3.4 Sampling Technique

The sampling method includes judgmental, stratified random and convenience sampling. Judgmental sampling is to select sophomore students at four higher vocational

colleges: Sichuan Post and Telecommunication College, Sichuan Vocational College of Finance and Economics, Chengdu Agricultural College, and Sichuan Changjiang Vocational College Then, stratified random sampling is to proportionate total number of students (13,523) into sample size in each subgroup, as shown in Table 1. Afterward, the researcher employed convenience sampling to distribute the online and offline questionnaire.

Table 1: Sample Units and Sample Size

Target middle school	Population Size	Sample Size
Sichuan Post and Telecommunication College	1944	72
Sichuan Vocational College of Finance and Economics	2450	90
Chengdu Agricultural College	4810	178
Sichuan Changjiang Vocational College	4319	160
Total	**13523**	**500**

Source: Constructed by author

4. Results and Discussion

4.1 Demographic Information

The profile of the demographic targets 500 participants and is concluded in Table 2. Male respondents represent 52.6%, and female respondents account for 47.4%. For the age group, the biggest segment in this research was 19-21 years old, representing 43.2% of respondents, followed by 40.6.% of 16-18 years old, 14% of 22-24 years old, and 2.2 % of over 24 years old. Regarding student source of respondents, the major group was Sichuan province of 69%; another group was another province of 31%. According to the enrollment type, 56.2% of the students come from the countryside, and 43.8% come from the city. In terms of major types, most students study science, accounting for 48.8%, followed by liberal arts, accounting for 42%, and other disciplines, accounting for 9.2%. According to the types of schools, before students receive higher education, 53% of them come from vocational colleges, and the other students come from ordinary high schools, accounting for 47%. Regarding admission methods, the students who passed the college entrance examination accounted for 51%, the students who took the skills examination accounted for 44.4%, and the rest accounted for 4.6%.

Table 2: Demographic Profile

Demographic and General Data (N=500)		Frequency	Percentage
Gender	Male	263	52.6%
	Female	237	47.4%
Age	16-18 years old	203	40.6%
	19-21 years old	216	43.2%
	22-24 years old	70	14%
	More than 24 years old	11	2.2%
Student source	Sichuan province	345	69%
	Another province	155	31%
Enrollment type	City	219	43.8%
	Countryside	281	56.2%
Major type	Liberal arts	210	42%
	Science	244	48.8%
	Others	46	9.2%
School type	High school	235	47%
	Vocational school	265	53%
Admission method	Entrance examination	255	51%
	Separate enrollment	222	44.4%
	others	23	4.6%

4.2 Confirmatory Factor Analysis (CFA)

In this study, Confirmatory Factor Analysis (CFA) was used to assess the validity of the measures. Results indicated that all items within each variable had significant factor loadings, demonstrating discriminant validity. The goodness of fit was evaluated based on the significance of factor loadings and acceptable values (Hair et al., 2006). Factor loadings were considered acceptable if they exceeded 0.30 and had a p-value below 0.05. The construct reliability was greater than the recommended cut-off value of 0.7. The average variance extracted exceeded the recommended cut-off value of 0.5 (Fornell & Larcker, 1981), as shown in Table 3. All estimates were found to be significant.

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
Academic aspects (AA)	Ali et al. (2016)	6	0.942	0.722-0.910	0.943	0.734
Reputation (R)	Ali et al. (2016)	4	0.758	0.587-0.750	0.761	0.445
Information quality (IQ)	Rughoobur-Seetah and Hosanoo (2021)	5	0.866	0.665-0.854	0.870	0.575
Instructor quality (INSQ)	Rughoobur-Seetah and Hosanoo (2021)	4	0.822	0.648-0.805	0.823	0.540
Perceived value (PV)	Demir et al. (2020)	4	0.780	0.602-0.736	0.780	0.472
Satisfaction (S)	Ali et al. (2016)	5	0.786	0.593-0.684	0.787	0.426
Loyalty (L)	Ali et al. (2016)	3	0.827	0.738-0.827	0.829	0.618

To further assess the validity of the CFA model, a range of goodness-of-fit indices were used, including GFI, AGFI, NFI, CFI, TLI, and RMSEA, as shown in Table 4. These indices provide an overall indication of how well the data fit the proposed model. The values of these indices exceeded the recommended thresholds, confirming both the measures' convergent and discriminant validity.

Table 4: Goodness of Fit for Measurement Model

Fit Index	Acceptable Criteria	Statistical Before Values Adjustment	Statistical Values After Adjustment
CMIN/ DF	< 5.00 (Al-Mamary & Shamsuddin, 2015; Awang, 2012)	1790.428/413 or 4.335	1355.207/412 or 3.289
GFI	≥ 0.85 (Sica & Ghisi, 2007)	0.840	0.853
AGFI	≥ 0.80 (Sica & Ghisi, 2007)	0.808	0.823
NFI	≥ 0.80 (Wu & Wang, 2 006)	0.799	0.848
CFI	≥ 0.80 (Bentler, 1990)	0.837	0.888
TLI	≥ 0.80 (Sharma et al., 2005)	0.816	0.874
RMSEA	< 0.08 (Pedroso et al., 2016)	0.082	0.068
Model summary		**Unacceptable Model Fit**	**Acceptable Model Fit**

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.

The results presented in Table 5 indicate that convergent validity has been achieved, as the square root of the average variance extracted is greater than the corresponding correlation values for each variable. This demonstrates that the measures are closely related and measure the same construct.

Table 5: Discriminant Validity

	AA	R	IQ	INSQ	PV	S	L
AA	**0.857**						
R	0.122	**0.667**					
IQ	0.178	0.432	**0.758**				
INSQ	0.144	0.128	0.239	**0.735**			
PV	0.125	0.324	0.291	0.179	**0.687**		
S	0.120	0.377	0.370	0.238	0.342	**0.653**	
L	-0.044	0.016	-0.023	-0.034	-0.059	0.115	**0.786**

Note: The diagonally listed value is the AVE square roots of the variables

4.3 Structural Equation Model (SEM)

According to Hair et al. (2010), Structural Equation Modeling (SEM) validates the causal relationship among variables in a proposed model and encompasses measurement inaccuracy in the structure coefficient. The goodness of fit indices for the Structural Equation Model (SEM) is measured as demonstrated in Table 6. The model fit measurement should not be over 3 for Chi-square/degrees-of-freedom (CMIN/DF) ratio, and GFI and CFI should be higher than 0.8 as recommended by Greenspoon and Saklofske (1998). The calculation in SEMs and adjusting the model by using SPSS AMOS version 26, the results of the fit index were presented as a good fit, which are CMIN/DF = 3.079, GFI =0.852, AGFI = 0.828, NFI = 0.853, CFI = 0.895, TLI =0.885 and RMSEA = 0.065, according to the acceptable values are mentioned in Table 6.

Table 6: Goodness of Fit for Structural Model

Index	Acceptable	Statistical Before Values Adjustment	Statistical Values After Adjustment
CMIN/DF	< 5.00 (Al-Mamary & Shamsuddin, 2015; Awang, 2012)	2027.725/428 or 4.738	1308.723/425 or 3.079
GFI	≥ 0.85 (Sica & Ghisi, 2007)	0.816	0.852
AGFI	≥ 0.80 (Sica & Ghisi, 2007)	0.787	0.828
NFI	≥ 0.80 (Wu & Wang, 2006)	0.772	0.853
CFI	≥ 0.80 (Bentler, 1990)	0.810	0.895
TLI	≥ 0.80 (Sharma et al., 2005)	0.794	0.885
RMSEA	< 0.08 (Pedroso et al., 2016)	0.087	0.065
Model Summary		**Unacceptable Model Fit**	**Acceptable Model Fit**

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

Research hypothesis testing and results were determined by standardized path coefficient (β) and t-value of the SEM. In Tabke 7, most of the hypotheses were significant at a p-value less than 0.5, except H1 of the relationship between academic aspects and satisfaction.

Table 7: Hypothesis Results of the Structural Equation Modeling

Hypothesis	(β)	t-value	Result
H1: AA → S	-0.009	-0.223	Not Supported
H2: R→ S	0.286	5.001*	Supported
H3: IQ → S	0.255	4.701*	Supported
H4: INSQ → S	0.166	3.135*	Supported
H5: PV → S	0.270	4.659*	Supported
H6: S→ L	0.112	1.999*	Supported

Note: * p<0.05

Based on the results of **H1**, the statistical findings of this study do not support the hypothesis that Academic Aspects have a significant impact on satisfaction with the standard

coefficient value is -0.009. Among the factors related to the quality of education in higher vocational colleges in Sichuan, the impact of academic satisfaction on students' satisfaction with the quality of higher education in colleges cannot effectively support this hypothesis, which contradicts the previous literature (Annamdevula & Bellamkonda, 2016; Huili & Jing, 2012; Jiewanto et al., 2012).

With a standardized path coefficient value of 0.286, **H2** confirmed that Reputation is one of the most important determinants of satisfaction. According to the study, Reputation significantly impacts satisfaction with the quality of higher education (Manohar et al., 2019).

The result of **H3** supported the hypothesis of a significant relationship between information quality and satisfaction, as described by the standard coefficient value of 0.255. Students' satisfaction with higher education services will be directly affected by the quality of information used and the way and perception of obtaining information during school study (Rughoobur-Seetah & Hosanoo, 2021).

H4 confirmed that instructor quality is one of the essential factors for perceived usefulness, with the structural approach yielding the highest standardized path coefficient value of 0.166 Previous research demonstrated that instructor quality is the direct object of students in the teaching activities of higher education, directly affecting the improvement of students' satisfaction (Abu Seman et al., 2019).

H5 showed that perceived value significantly influenced satisfaction, as indicated by the common coefficient value of 0.270. Therefore, the pleasure of products or services, especially students' satisfaction, can be represented by perceived value (Demirgünescedil, 2015).

H6 determined that satisfaction significantly impacts loyalty, resulting in a common coefficient value of 0.112. A literature review indicated a significant positive association between customer happiness and loyalty (Athiyaman, 1997; El-Adly & Eid, 2016).

5. Conclusion and Recommendation

5.1 Conclusion and Discussion

This study proves the importance of loyalty and satisfaction in higher vocational colleges in Chengdu, China. In the conceptual framework, assumptions are proposed. The questionnaire was sent to 500 school students with at least one year of study experience. The confirmatory factor analysis (CFA) is used to check the effectiveness and reliability of the concept matrix. In addition, the structural equation model (SEM) is used to determine the main influencing factors of loyalty and satisfaction.

Consistent with previous research results, the school's reputation significantly impacts student satisfaction and will directly affect students' loyalty. The main reason may be that the school's reputation uses information technology and social networks to form a unified understanding among students. Information quality, teacher quality, and perceived value significantly impact students' satisfaction with the quality of higher vocational education, which may be because these aspects are more directly accessible to students. However, the academic aspect is not influencing student satisfaction because the main teaching content of vocational and technical colleges is the improvement of student's practical skills, and the requirements for academic research level are low. Based on these findings, after the outbreak of the epidemic, the factors affecting the quality of education in higher vocational colleges have changed significantly compared with the previous ones, which is mainly reflected in the fact that students pay more attention to the related services that will directly affect their future employment, such as their skills and values.

5.2 Recommendation

In higher vocational education, practical training should be given top priority. Students should have ample opportunities to engage in hands-on learning experiences, such as internships, apprenticeships, and on-the-job training. This will help them develop their practical skills and prepare them for the demands of the workforce. Use real-life examples: When teaching theoretical concepts, use real-life examples to make them more relatable and understandable. This will help students grasp the practical applications of the theories they are learning, which will increase their engagement and motivation. Encourage students to work in groups or pairs to complete tasks and assignments. This will help them develop teamwork and communication skills essential in the workplace. The collaboration will also enable them to learn from one another and share their knowledge and experience. Establish mentorship programs that connect students with experienced professionals in their chosen fields. This will allow students to learn from those who have already succeeded in their careers and gain valuable insights into what success takes. Provide students with career-oriented guidance that focuses on their interests and goals. This will help them make informed decisions about their career paths and ensure they develop the skills and knowledge they need to succeed in their chosen fields. Improving students' practical skills is vital to enhance the quality of teaching in higher vocational colleges. By prioritizing practical training, using real-life examples, fostering collaboration, offering mentorship programs, and providing career-oriented guidance, educators and administrators can help students develop the skills they need to succeed in the workforce.

5.3 Limitation and Further Study

The study's scope was limited to employees in the middle to top management positions within the five largest publicly listed property developers in Thailand, based on market capitalization from the Stock Exchange of Thailand. Different results could be obtained when analyzing companies of different sizes, industries, cultures, or countries. Future research could explore other factors that may impact innovative work behavior, such as perceived support from the organization, transactional leadership, job autonomy, and team learning. Furthermore, future studies could examine how innovative behavior influences the creation of new products, services, or processes, which can lead to significant financial and non-financial benefits for organizations.

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