

Determinants of Student Satisfaction in Higher Vocational Education: A Case Study of a College in Zhejiang Province, China

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Abstract

Purpose: This study explores factors influencing student satisfaction at a vocational college in Zhejiang, China, to develop strategies for improvement. **Research design, data, and methodology:** The research employed three phases: analyzing the current situation, designing a strategic plan, and evaluating the expected outcomes. A mixed-methods approach included a pilot test with 30 participants and an Index of Item-Objective Congruence (IOC) validity check by three experts. Data from 120 valid survey responses were analyzed using Multiple Linear Regression (MLR). Additionally, interviews with 30 students, three teachers, and two administrators provided qualitative insights. After presenting the strategic plan, the same group of students re-evaluated it via a follow-up questionnaire. **Results:** MLR analysis showed significant influences of perceived value, university image, and student engagement on satisfaction, while teacher support and service quality were non-significant but still prioritized. Paired sample t-tests indicated significant improvements in all variables post-strategic plan implementation. **Conclusions:** The strategic plan effectively enhanced student satisfaction, with further improvements anticipated upon full execution. These outcomes are expected to bolster the college's reputation, competitiveness, and ability to attract new students.

Keywords: Student Satisfaction, Higher Vocational Education, University Image, Perceived Value, Student Engagement

JEL Classification Code: I23, J28, L2

1. Introduction

Stone and Thomson (1987) suggest that to apply the concept and components of customer satisfaction in educational contexts, these elements must be adapted. This refinement should encompass changes to administrative policies, educational goals, teaching methods, and institutional frameworks. Customer satisfaction is becoming increasingly vital in China's higher education sector. Educational institutions are increasingly seen as service providers catering to students and businesses, parents, and society at large, reflecting changes in educational philosophy and the broader socio-economic environment. As a result, customer satisfaction has emerged as a key indicator of higher education institutions' overall performance and competitive advantage. Scholars have demonstrated that the globalization of education and the rapid exchange of information has led to the perception of students as consumers in the educational sphere (Dursun et al., 2013;

Sojkin et al., 2012; Wu et al., 2014; Yousapronpaiboon, 2014).

As the primary group enrolling in colleges and universities, students can assess their level of satisfaction with the education they receive. According to Sapri et al. (2009), evaluating student satisfaction is crucial for determining the quality and effectiveness of the services provided by postsecondary educational institutions. In China, student satisfaction has become a key criterion for assessing the quality and reputation of higher education institutions. University competitiveness has increased with the continuous development and improvement of China's higher education system. Consequently, enhancing student satisfaction has become one of the most pressing challenges for university administrators.

Based on survey results conducted in 2022 and 2023 regarding the quality of talent training and career development for college graduates in Zhejiang Province, the subject of my study ranked 35th and 31st, respectively, out

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of 46 higher vocational colleges in the province. Although the ranking has improved, it remains relatively low, indicating that the college's competitiveness is still weak. At the same time, the data shows that graduates from 2022 and 2023 ranked 34th and 28th, respectively, in terms of satisfaction. While there is considerable room for improvement, this reflects a noticeable and rapid improvement compared to earlier data.

Furthermore, the local government has reduced college enrollment, worsening the situation. As a result, graduates significantly dropped from 1,428 in 2022 to 1,122 in 2023. The college also needs more financial support, making it crucial to find a solution. To improve student satisfaction and enhance the college's competitiveness in Zhejiang Province- and potentially across China's education market- the author also aims to improve the quality of students.

2. Literature Review

2.1 Student Satisfaction

A short-term mindset that emerges from evaluating students' educational experiences is student satisfaction. Student satisfaction is guaranteed when actual performance meets or exceeds expectations (Elliott & Healy, 2001) and is a positive precursor to student loyalty (Navarro et al., 2005). Student's satisfaction during their study term can be defined by their perceived performance of educational services and their relative degree of positive experiences (Mukhtar et al., 2015). According to Paharia (2019), students are the most direct stakeholders in educational services. Thus, they have the right to expect higher education institutions to meet their needs and provide the highest quality educational services possible. Limna et al. (2022) emphasize that student satisfaction is crucial for enabling educational institutions to deliver more accurate and superior services.

2.2 University Image

Kotler and Fox (1995) define an image as a person's overall impression of an object. Azoury et al. (2014) describe the institutional image as a reflection of thoughts, sentiments, and perceptions, while Duarte et al. (2010) characterize it as a simplified portrayal of various relationships and facts. Stakeholders interpret organizational signals over time, which shapes its image. Chandra et al. (2019) state that different interpretations result from individual knowledge gaps. Sung and Yang (2008) emphasize that a university's image shapes students' perspectives, and Jiewanto et al. (2012) define "university image" as the perceptions surrounding a university. Tran et al. (2015) identifies factors such as communication, emotional appeal, and the physical

environment influencing brand image. Nguyen et al. (2016) stress that brand image is crucial for differentiating universities and influencing student decisions.

Weerasinghe and Fernando (2018) research reveals that university image is the most powerful predictor, substantially impacting student satisfaction rate. According to Chandra et al. (2019), how the university is perceived significantly influences student satisfaction and loyalty. Ebrahimzadeh Pezeshki et al. (2020) assert that university image is a significant factor in determining student satisfaction. El-Kassar et al. (2023) suggest that improving service quality, perceived university image, and student-university identity increases student satisfaction and alumni loyalty. Schlesinger et al. (2023) show that university identity, alum word-of-mouth, and satisfaction influence on university brand image contribute to explaining its impact. Consequently, the following hypothesis is proposed:

H1: University image has a significant impact on student satisfaction in higher vocational education.

2.3 University Service Quality

The study of service quality began in the late 1970s. Over the past three decades, a growing body of research in services marketing has focused on the characteristics of perceived service quality across various cultural contexts and service sectors, including higher education. Sultan and Yin Wong (2014) define service quality as a set of prevailing and market-driven features of a particular service that affect the supplier and customer's ability to maintain a long-term relationship. Service quality is particularly important and vital in the context of higher education. According to Jancey and Burns (2013), as the primary stakeholders in any higher education institution, students' satisfaction is greatly influenced by the quality of services they receive while enrolled. Additionally, Saleem et al. (2017) emphasize that an evaluation of its quality measures a service's ability to meet the expectations of customers or students.

According to Dora (2018), service quality significantly and positively impacts satisfaction. Hamed et al. (2022) found that the quality of university services substantially affects student satisfaction. In Hwang and Choi's (2019) study, students indicated that they were satisfied with various aspects related to service quality. The study by Hassan et al. (2019) demonstrated that service quality has a major and immediate effect on student satisfaction, suggesting that service quality acts as a stimulus influencing satisfaction. Through PLS-SEM analysis, Sann et al. (2023) identified responsiveness and empathy as critical components of university service quality, affecting student satisfaction. Consequently, the following hypothesis is proposed:

H2: University service quality has a significant impact on student satisfaction in higher vocational education.

2.4 Perceived Value

Perceived value is the consumer's overall evaluation of a product's utility based on perceptions of what is provided and received (Zeithaml, 1988). According to Watjatrakul (2016), customers' perceived value is influenced by various factors, including functional, emotional, social, epistemic, and conditional values. In a college or university setting, students assess the overall worth of a service based on the benefits received and the sacrifices made to acquire and use it (Kunanusorn & Puttawong, 2015). Pandža Bajs (2015) explored the importance of perceived value in guiding producers to create products and services that meet consumer needs and desires.

Lunarindiah (2016) found that student satisfaction is positively and significantly influenced by an organization's image, level of service, and perceived value. Halimatussakdiah et al. (2020) examined the relationship between student satisfaction and perceived value, concluding that the former positively and significantly impacts the latter. Sadia (2020) identified perceived value as a major predictor of student satisfaction. Giantari et al. (2021) also found that perceived value positively and significantly affects student satisfaction and word-of-mouth (WOM). Consequently, the following hypothesis is proposed:

H3: Perceived value has a significant impact on student satisfaction in higher vocational education.

2.5 Teacher Support

Metheny et al. (2008) found that caring for students, being approachable, and positively communicating high expectations for students' academic achievement and career preparation are characteristics of successful teacher support. Goodenow (1993) noted that students' perceptions of their teacher's value, care, and personal relationships are the foundation of their support for teachers. Ryan and Patrick (2001) describe teacher support as the extent to which students perceive their teachers' appreciation for them, often including attributes like dependability, responsibility, kindness, understanding, and concern. Lei et al. (2018) emphasize that teachers play a crucial role in helping students achieve academic success, as they spend significant time in the classroom assisting with students' goals.

According to James and Yun (2018), exposure to outstanding teaching and learning methodologies, acquiring skills necessary for future employment, and experiencing personal growth and fulfillment are often linked to college students' satisfaction. Ho et al. (2021) note that various characteristics, such as teacher's willingness to engage and their agreement with the appropriateness of new evaluation methodologies, impact satisfaction levels. Jiang et al. (2022) emphasize that teachers who encourage active participation

in the classroom are critical in enhancing students' satisfaction with their education. Furthermore, as Gokuladas and Baby Sam (2022) point out, peer and organizational support appear to be the next most important factors in ensuring young people's school satisfaction, following teacher support. Consequently, the following hypothesis is proposed:

H4: Teacher support has a significant impact on student satisfaction in higher vocational education.

2.6 Student Engagement

Based on student involvement theory, Astin (1999) provided an early definition of student engagement that outlines the amount of time and effort students invest in their academic endeavors. Coates (2006) defines "engagement" as the level of commitment students show while pursuing their objectives in the classroom. Skinner and Pitzer (2012) assess student participation across classrooms, learning activities, pro-social institutions, and educational settings, noting that student engagement is multilayered and complex. Harper (2009) state that engagement encompasses more than involvement or participation. Additionally, engaging teaching strategies can enhance student engagement (Jang et al., 2010).

Holmes (2018) asserts that two essential learning metrics closely linked to student engagement are the quality of the student experience and student satisfaction. Muzammil et al. (2020) demonstrate that student engagement positively affects student satisfaction. Kim and Kim (2021) found that while student engagement positively impacts student satisfaction, it does not significantly enhance academic achievement. Osman (2022) identifies a significant positive association between knowledge, skills, and abilities, student contact, and engagement- all of which contribute to increasing student satisfaction. Consequently, the following hypothesis is proposed:

H5: Student engagement has a significant impact on student satisfaction in higher vocational education.

3. Research Methods and Materials

3.1 Research Framework

The researcher employed five model hypotheses from Song (2022), Sann et al. (2023), Teeroovengadum et al. (2019), He et al. (2024), and Osman (2022). These five theoretical frameworks constructed and supported the conceptual framework in Figure 1.

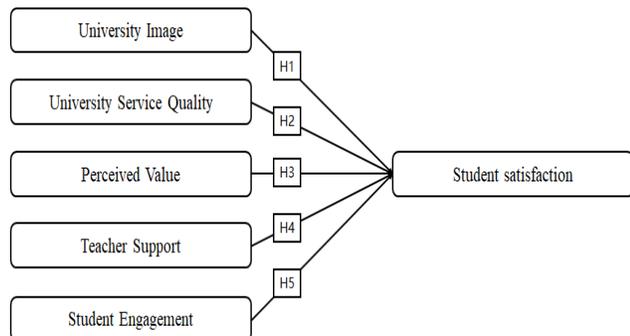


Figure 1: Conceptual Framework

H1: University image has a significant impact on student satisfaction in higher vocational education.

H2: University service quality has a significant impact on student satisfaction in higher vocational education.

H3: Perceived value has a significant impact on student satisfaction in higher vocational education.

H4: Teacher support has a significant impact on student satisfaction in higher vocational education.

H5: Student engagement has a significant impact on student satisfaction in higher vocational education.

3.2 Research Methodology

The study had three stages: current situation, strategic plan, and expected situation-strategic plan. During the first phase, a SWOT analysis, scenario assessment, identification of improvement opportunities, and conceptual framework development were conducted. After that, a validated questionnaire was employed, and Jamovi was used to assess the reliability of the pilot results. Finally, 120 students from three faculties and grades were selected for the survey.

MLR was used to investigate the hypothesis. During the strategic planning phase, 50 students, three teachers, and two administrators were interviewed to gather information for a diagnostic and SWOT analysis. The main subjects covered included enhancing value, engagement, and satisfaction, boosting the college's image, and improving teacher support. Based on the findings, a strategic plan was developed and implemented to evaluate its impact on student satisfaction.

The expected situation evaluation was the final stage. A quantitative re-evaluation of the strategic plan findings was conducted. The same 120 students completed the questionnaire again, and paired samples were assessed. The t-test validated the influence of the plan's implementation, leading to final conclusions and recommendations.

3.3 Research Population, Sample Size, and Sampling Procedures

3.3.1 Research Population

The research population for this study consists of 120 first-, second-, and third-year students from a higher vocational college in Zhejiang, China. The students are drawn from three faculties: the Tourism College, the Health College, and the Business College. Students were randomly selected from each faculty.

3.3.2 Sample size

30 students participated in a pilot test to verify reliability before 120 were assessed using MLR, following validity and reliability checks. Interviews with 50 students from a public elective course, three teachers, and two administrators provided insights that informed the strategic plan's goals and implementation strategies. Finally, the survey was retaken by a subset of the 120 students who had already completed it.

3.3.3 Sampling Procedures

The researcher repeated the following sampling procedures, and the questionnaire was distributed via the web tool WJX.

Step 1: A pilot test with 30 students was conducted to confirm the test's reliability.

Step 2: 120 randomly selected students from three faculties and three grades underwent MLR testing.

Step 3: The completed strategic plan was formulated using the MLR questionnaire responses.

Step 4: During the strategic plan stage, two administration leaders, three teachers, and 50 students from a public course were interviewed to provide opinions and suggestions about the strategic plan.

Step 5: Finally, in the expected situation stage, the 120 students who had previously completed the survey were selected to retake the questionnaire to evaluate the effectiveness of the strategic plan.

3.4 Research Instruments

3.4.1 Design of Questionnaire

The questionnaire was designed using two components and six parameters. The demographic questions in the first section, related to gender and grade, helped capture respondents' opinions, characteristics, and other relevant information. The subsequent section of the survey included six dimensions: university image (5 questions) and perceived value (4 questions) derived from Kaushal et al. (2023), university service quality (5 questions), and student satisfaction (6 questions) derived from Doan (2021), teacher support (9 questions) derived from Gokuladas and Baby Sam

(2022), student engagement (8 questions) derived from Osman (2022).

Each survey question was rated on a 5-point Likert scale. To quantify the concepts and objectives, the scale used the following values: Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4), and Strongly Agree (5).

3.4.2 Components of Questionnaire

The following sampling processes were related to the multiple samples conducted by the author:

Step 1: Screening Questions: These were used to filter out inquiries unrelated to the study’s topic and respondents who were not a good fit for the research.

Step 2: Basic Information Request: A few questions were asked to collect basic information about the study population, such as gender, grade, and faculties.

Step 3: Pre-test inquiries: A pre-survey was administered to 120 students to assess their initial levels of the independent and dependent variables.

3.4.3 IOC Results

The authors recruited three specialists from Assumption University to conduct the IOC method. In this process, +1 was designated as Congruent (consistent), 0 as Questionable, and -1 as Incongruent. Since each questionnaire item in this study had a coefficient greater than 0.67, the authors retained all items.

3.4.4 Pilot survey and Pilot test results

The author conducted a pilot survey with 30 randomly selected students, asking them to complete the survey and provide feedback. Subsequently, Cronbach’s Alpha internal consistency reliability test was applied, with a threshold of 0.7 or higher, as Nunnally and Bernstein (1994) recommended. As a result, table 1 below shows the approved results, indicating high reliability for each construct.

Table 1: Pilot Test Result

Variables	No. of Items	Sources	Cronbach’s Alpha	Strength of Association
University Image	5	Kaushal et al. (2023)	0.834	Good
University Service Quality	5	Doan (2021)	0.757	Acceptable
Perceived Value	4	Kaushal et al. (2023)	0.801	Good
Teacher Support	9	Gokuladas and Baby Sam (2022)	0.862	Good
Student Engagement	8	Osman (2022)	0.792	Acceptable
Student Satisfaction	6	Doan (2021)	0.861	Good

4. Results and Discussion

4.1 Results

4.1.1 Demographic Profile

The authors provided a demographic profile of the full research population (n=120). Additionally, as indicated in Table 2, the 120 individuals who had previously completed the survey also participated in the strategic plan, ensuring the objectivity and accuracy of the validation results.

Table 2: Demographic Profile

Entire Research Population (n=120)		Frequency	Percent
Gender	Male	59	49.17%
	Female	61	50.83%
Grade	Grade 1	40	33.33%
	Grade 2	39	32.50%
	Grade 3	41	34.17%
Faculties	Faculty of Tourism	40	33.33%
	Faculty of Health	50	41.67%
	Faculty of Business	30	25.00%
Total		120	100%
IDI Participants (n=30)		Frequency	Percent
Gender	Male	9	30%
	Female	21	70%
Grade	Grade 1	6	20%
	Grade 2	9	30%
	Grade 3	15	50%
main field of study (at university)	Faculty of Tourism	8	26.67%
	Faculty of Health	8	26.67%
Faculties	Faculty of Business	14	46.66%
Total		30	100%

4.1.2 Results of multiple linear regression

The authors analyzed 120 questionnaire responses using MLR to determine whether each hypothesis was validated. In total, there were five research hypotheses. Since the variance inflation factor (VIF) values were less than 5, it was conducted from the VIF analysis that multicollinearity was not an issue (Hair et al., 1995). R² explained 71.6% of the variability in the MLR model with five independent variables.

Table 3: The multiple linear regression of five independent variables on student satisfaction

Variables	T	P-value	Stand. Estimate (β)	VIF	R ²
University Image (UI)	3.73**	< .001	0.2924	2.46	0.716
University Service Quality (USQ)	-0.09*	<0.05	-0.0080	3.49	
Perceived Value (PV)	5.32**	< .001	0.4300	2.61	
Teacher Support (TS)	0.11*	<0.05	0.0114	3.97	
Student Engagement (SE)	3.42**	< .001	0.2623	2.36	

Dependent variable: student satisfaction

Note: p-value <0.05*, p-value <0.001**

The findings of the MLR study showed that while teacher support and university service quality had no discernible effects on student satisfaction ($p > 0.05$), university image, perceived value, and student engagement did have significant effects ($p < 0.05$). Considering this, H1, H3, and H5 were supported, while H2 and H4 were not. Furthermore, considering the standardized estimate, the perceived value had a greater impact on student satisfaction. The following hypotheses, linked to the changes between the current and expected situation, were proposed in the Finalized Strategic Plan:

H6: There is a significant mean difference between the Current and Expected situation plans for the University Image.

H7: There is a significant mean difference between the Current and the Expected situation plan for University Service Quality.

H8: There is a significant mean difference between the Current and the Expected situation plan for Perceived Value.

H9: There is a significant mean difference between the Current and the Expected situation plan for Teacher Support.

H10: There is a significant mean difference between the Current and the Expected situation plan for Student Engagement.

H11: There is a significant mean difference between the Current and the Expected situation plan for Student Satisfaction.

4.2 IDI Intervention Stage

To accomplish the goal of this study, which is to increase student satisfaction, the 12-week Strategic Plan intervention program was based on quantitative and qualitative data gathered during the Current Situation-Strategic Plan phase.

As shown in Figure 2, the authors presented the Strategic Plan intervention in chronological order.

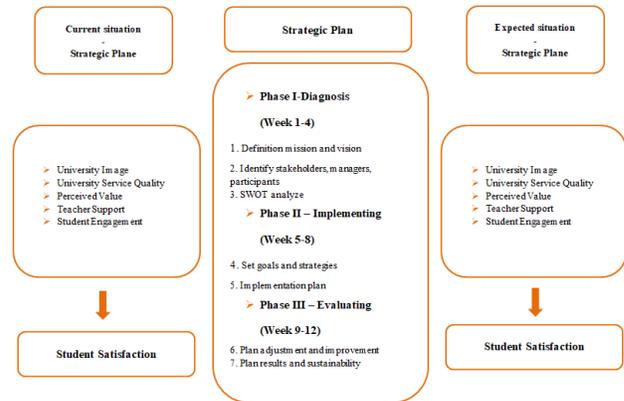


Figure 2: IDI Activities

4.3 Results Comparison between Pre-IDI and Post-IDI

To determine whether student satisfaction differed between the current and expected situation-strategic plan stages, the author used paired-sample t-test analysis on all six variables. The following tables show the paired-sample t-test analysis results for these six variables.

Table 4: Paired-Sample T-Test Results

Variables	Mean	Std. Deviation	t-value	p-value
University Image (UI)				
Current situation-Strategic Plan	3.54	0.686	-11.20	< .001
Expected situation-Strategic Plan	3.93	0.364		< .001
University Service Quality (USQ)				
Current situation-Strategic Plan	3.98	0.600	- 6.61	0.932
Expected situation-Strategic Plan	4.16	0.397		< .001
Perceived Value (PV)				
Current situation-Strategic Plan	3.61	0.730	10.37	< .001
Expected situation-Strategic Plan	3.99	0.406		< .001
Teacher Support (TS)				
Current situation-Strategic Plan	4.08	0.582	- 6.08	0.909
Expected situation-Strategic Plan	4.22	0.405		< .001
Student Engagement (SE)				
Current situation-Strategic Plan	3.92	0.585	- 7.94	< .001
Expected situation-Strategic Plan	4.13	0.378		< .001
Student Satisfaction (SS)				

Variables	Mean	Std. Deviation	t-value	p-value
Current situation-Strategic Plan	3.71	0.708	- 9.62	< 0.00
Expected situation-Strategic Plan	4.03	0.414		

The findings of the paired-sample t-test study comparing the current situation- and expected situation-strategic plans are shown in Table 4 as follows:

The university image differed significantly between the current situation-strategic plan (M=3.54, SD=0.686) and expected situation-strategic plan (M=3.93, SD=0.364) conditions, as shown in Table 4; $t = -11.2$, $p < .001$, with a mean difference of -0.387. Therefore:

H6: There is a significant difference between the Current and Expected situation plans for the University Image.

The university service quality differed significantly between the current situation-strategic plan (M=3.98, SD=0.600) and expected situation-strategic plan (M=4.16, SD=0.397) conditions, as shown in Table 4; $t = -6.61$, $p < .001$, with a mean difference of -0.178. Therefore:

H7: There is a significant difference between the Current and Expected situation plans for University Service Quality.

The perceived value differed significantly between the current situation-strategic plan (M=3.61, SD=0.730) and expected situation-strategic plan (M=3.99, SD=0.406) conditions, as shown in Table 4; $t = -10.37$, $p < .001$, with a mean difference of -0.377. Therefore:

H8: There is a significant difference between the current and expected situation plans for perceived value.

The teacher support differed significantly between the current situation-strategic plan (M=4.08, SD=0.582) and expected situation-strategic plan (M=4.22, SD=0.405) conditions, as shown in Table 4; $t = -6.08$, $p < .001$, with a mean difference of -0.144. Therefore:

H9: There is a significant difference between the Current and Expected situation plans for Teacher Support.

The student engagement differed significantly between the current situation-strategic plan (M=3.92, SD=0.585) and expected situation-strategic plan (M=4.13, SD=0.378) conditions, as shown in Table 4; $t = -7.94$, $p < .001$, with a mean difference of -0.216. Therefore:

H10: There is a significant difference between the Current and the Expected situation plan for Student Engagement.

The student satisfaction differed significantly between the current situation-strategic plan (M=3.71, SD=0.708) and expected situation-strategic plan (M=4.03, SD=0.414) conditions, as shown in Table 4; $t = -9.62$, $p < .001$, with a mean difference of -0.319. Therefore:

H11: There is a significant difference between the Current and the Expected situation plan for Student Satisfaction.

Based on the results of the paired-sample t-test presented above, the authors arrived at the following conclusions. First, there was a significant mean difference between the current situation and the expected situation-strategic plan for each of the six variables. Second, the study found that student satisfaction increased significantly between the current and expected situation-strategic plan periods.

5. Conclusions, Recommendations and Limitations

5.1 Conclusions & Discussions

5.1.1 Advantages of Enhancing Student Satisfaction

According to research conducted at a vocational college in Zhejiang, the suggested strategic plan greatly increases overall student satisfaction. The study shows that while teacher support and service quality have less impact on satisfaction, student engagement, perceived value, and university image have a significant impact. However, variations in student ratings suggest these areas still require improvement.

First, improving the university's image immediately enhances student satisfaction. Advancements in international standards, transportation, and infrastructure positively influence students' perceptions and sense of pride in their institution, thereby increasing their satisfaction.

Furthermore, enhancing perceived value is essential for improving student satisfaction. Strengthening vocational education, expanding internships, and providing job assistance can improve students' perceptions of the value of their education.

Finally, increasing student engagement has a significant impact on satisfaction. Improving the teaching methods and the incentives students receive can boost engagement and raise overall satisfaction levels.

5.1.2 Challenges in Implementation

While the strategic plan has successfully raised student satisfaction, certain challenges remain before it can be fully implemented. Despite the lack of statistical significance regarding teacher support and service quality, student feedback suggests a need for ongoing improvements in administration, infrastructure, cafeteria, dormitory services, and mental health support.

In addition, continued investment is necessary to enhance student engagement and teacher support. Giray (2021) highlighted that a greater teacher-student connection can increase satisfaction, although it requires more effort from teachers. Additional testing is required for proposed

strategies such as teacher development, participatory teaching, and resource support.

Overall, the strategic interventions have increased student satisfaction; however, it is essential to prioritize service quality, teacher support, and continuous assessment to meet evolving demands.

5.2 Recommendations

Strategic improvement initiatives should be implemented to raise the college's overall competitiveness and increase student satisfaction. Based on research findings, individualized development plans for various student groups should be created to better meet student needs. Secondly, a systematic approach for gathering and assessing student feedback should be established to improve policies and services. Lastly, the college should allocate resources as efficiently as possible to maximize overall benefits.

School administrators can enhance the efficacy of management and policy execution by investing more in data-driven decision-making processes and fully utilizing quantitative and qualitative data when developing scientific plans. Departmental collaboration and information sharing should be encouraged to ensure the successful implementation of policies, which in turn enhances leadership effectiveness, supports the school's strategic goals, and improves student satisfaction. Targeted leadership training helps enhance the leadership team's strategic planning, management, and policy implementation capabilities.

Schools should establish a reliable mechanism for policy implementation feedback, appoint an assessment committee to regularly oversee policy implementation, and promptly modify measures based on the findings. Student feedback should be gathered through various methods to evaluate the impact of policy changes and student satisfaction. To improve engagement and transparency, students should be routinely updated on developments, promoting the flexibility and efficacy of policy implementation.

5.3 Limitations for Future Research

The study offers suggestions for raising student satisfaction, but methodological issues may hinder their applicability. Acknowledging these limitations and exploring improvement options is imperative to provide more useful recommendations for teaching practice.

Representativeness Problems and Sample Size Restrictions: Despite including 120 students from three distinct faculties, the sample size in this study was still limited and may not accurately reflect the student body across the faculty, particularly regarding the distribution of majors and grades. In the future, employing weighted

analysis and expanding the sample size will improve the study's external validity and generalizability.

Combining a Hybrid Strategy with a Single Data Source: Although this method can produce multifaceted insights, it has limitations due to its reliance on a single source of truth and the difficulty of integrating other data sources. This study blends qualitative and quantitative methodologies; however, it depends too heavily on participants' subjective responses, which may not accurately represent the actual circumstances at the college. Furthermore, maximizing the effective connection between qualitative and quantitative data is imperative. To increase the validity and reliability of research findings, future studies should focus on improving data integration and expanding the range of data collection techniques.

Duration and Immediate Effects of the Intervention: The study's brief timeframe hinders the assessment of the strategic plan's long-term influence on student satisfaction and limits the ability to provide long-term policy guidance despite the plan's promising prospects. Future research should extend the observation duration to more thoroughly evaluate the intervention's long-term impacts.

Limitations of leadership in policy interventions: Despite inviting school administrators to participate in creating the study's strategic plans, the authors had no direct control over the decisions made by leaders or how they were implemented. This limits the depth of leadership discussion. To support the role of leadership in school transformation, future research should focus on the influence of leadership on plan execution and explore ways to improve communication between teachers and leaders.

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