

# SOLUTIONS TO ENHANCE STUDENT SATISFACTION WITH THE PHYSICAL FACILITIES AND SERVICES OF THE FACULTY OF TOURISM, HANOI OPEN UNIVERSITY

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Received: 08/09/2025. Revised: 06/03/2026. Accepted: 19/03/2026  
 DOI: 10.59266/houjs.2025.745

**Abstract:** *Physical facilities and services are indispensable in universities and indirectly affect training effectiveness. Good physical facilities and services help learners feel comfortable, enhance their motivation to learn and conduct research, thereby improving their academic results. Recognizing the importance of this research issue, the authors surveyed 433 students on their satisfaction with the physical facilities and services at the Faculty of Tourism, Hanoi Open University. Based on these findings, some solutions are proposed to enhance student satisfaction with the Faculty's and the University's physical facilities and services in the future.*

**Keywords:** *Faculty of Tourism, Hanoi Open University, physical facilities and services, student satisfaction*

## I. Introduction

In the context of higher education reform, the quality of physical facilities and services at universities plays a crucial role in enhancing the student learning experience. Recognizing this, the Faculty of Tourism - Hanoi Open University, a reputable training unit in the field of tourism, has always considered ensuring physical facilities and service quality as a central task. Many studies affirm that student satisfaction not only reflects the quality of training but also serves as an indicator for assessing the suitability of the learning environment. When students feel satisfied with the physical facilities and services, they will have higher learning motivation, participate more actively in

the University's activities, and build a long-term connection with the University. Conversely, when dissatisfied, students are prone to discouragement, loss of focus, and may even drop out (Upcraft & Schuh, 1996; Pham, 2016; Nguyen, V. T. et al., 2016). Therefore, the authors conducted this research to identify influencing factors and propose solutions to enhance student satisfaction with the Faculty's physical facilities and services.

## II. Theoretical Basis

### 2.1. Some theoretical foundations

In the field of education, student satisfaction with service quality is a comprehensive evaluation of the educational activities provided by

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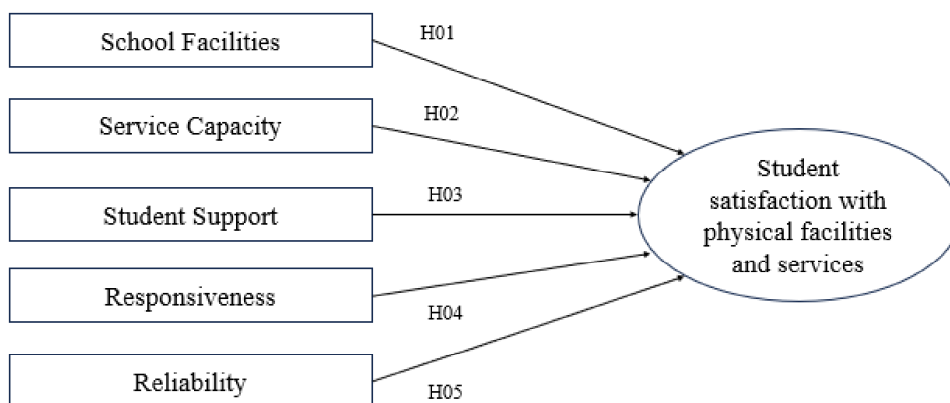
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organizations to students (Le et al., 2021). Student satisfaction focuses on three aspects: The fulfilment of expectations of the service/product recipient; The quality of services/products from the provider; The perception of the service/product recipient (Ngo & Ngo, 2024). Based on this, the authors understand that “Student satisfaction with physical facilities and services is understood as the degree of

fulfillment of expectations related to learning spaces, technological equipment, and support services, contributing to enhancing the professional competence of learners.”

**2.2. Research Model**

The research model is built based on the adaptation of the SERVPERF model (Cronin & Taylor, 1992). Below is the proposed research model:



*Figure 1. Proposed research model*

The dependent variable in the research model is student satisfaction with physical facilities and services, and the independent variables include:

- **School facilities and equipment (SF)**: encompasses all the means serving teaching and learning activities, contributing to helping lecturers improve the quality of knowledge transmission, and at the same time helping students to effectively acquire knowledge and develop professional skills. This is a tangible factor, reflected in the infrastructure system, classrooms, practice rooms, library, wifi, and projection equipment that students can directly use. The quality and adequacy of physical facilities directly affect students’ learning and living experience. A modern, comfortable learning environment will foster a sense of

comfort, inspire motivation, and increase learners’ satisfaction.

H01: Physical facilities and equipment have a positive correlation with student satisfaction regarding physical facilities and services.

- **Service capacity (SC)**: reflects the professional qualifications, skills, and work attitude of the staff in providing student support services in a professional, fast, and effective manner. Service-competent staff not only handle work accurately but also demonstrate a friendly, dedicated attitude. This contributes positively to student satisfaction with the school’s services.

H02: Service capacity is positively correlated with student satisfaction regarding physical facilities and services.

- **Student Support (SS):** The concern is shown through the school's level of listening, understanding, and respect for the needs, opinions, and feelings of students. When students feel cared for, they tend to trust the learning environment, feel attached to the school, and help build a positive relationship between students and the school.

H03: Attentiveness has a positive correlation with student satisfaction regarding physical facilities and services.

- **Responsiveness (RES):** The ability to respond refers to the school's capacity to quickly and effectively handle requests, questions, or problems arising from students. A flexible and timely feedback system will help students feel supported and secure in their learning process. From there, the level of trust and satisfaction with the service will also be enhanced.

H04: Responsiveness has a positive correlation with student satisfaction regarding physical facilities and services.

- **Reliability (REL):** reflects the consistency and reputation of the school in providing services and fulfilling its commitments to students. When the school ensures the right schedule, process, and quality of service as announced, students will feel secure, thereby strengthening their belief in the quality of training as well as the accompanying support activities.

H05: Reliability has a positive correlation with student satisfaction regarding physical facilities and services.

### III. Research methodology

The study used a survey method with questionnaires, collecting opinions from 433 full-time students from first to fourth year studying at the Faculty of Tourism, Hanoi Open University, using a convenience sampling method

via Google Forms. In-depth interviews with 5 experts were also conducted to adjust measurement variables and build the research model. Building on the SERVPERF scale developed by Cronin and Taylor (1992) and drawing on the scale of factors influencing student satisfaction with physical facilities and service quality proposed by Nguyễn, T. X. H. et al. (2016), the author conducted in-depth interviews with five experts to refine and contextualize the measurement instrument. As a result, the final scale comprised five dimensions: (1) physical facilities and equipment; (2) service competence; (3) empathy; (4) responsiveness; and (5) reliability, with a total of 31 observed variables. The authors used statistical methods, processing data in SPSS 26.0, to assess the scale's reliability, conduct an exploratory factor analysis (EFA), and perform regression analyses to determine the influencing factors and their levels of impact on student satisfaction with physical facilities and services.

### IV. Results and discussion

In the study, we collected samples from 433 students of the Faculty of Tourism, Hanoi Open University. After screening, we retained 433 samples that met the research requirements. Among these, the female ratio was 76.7%, the male ratio was 21.7%, and the other gender ratio was 1.6%. Regarding distribution by year of study, 56.8% were first-year students; 13.9% second-year students; 21.2% third-year students, and 8.1% fourth-year students. Regarding distribution by major, Hotel Management accounted for 38.6%, and Tourism and Travel Service Management accounted for 61.4%.

#### 4.1. Scale reliability test

The reliability test results for the student satisfaction scale regarding

physical facilities and services, with 31 observed variables across 6 factors, showed Cronbach's Alpha coefficients ranging from 0.814 to 0.893 for all factors, indicating that the scale is well-utilized. The Cronbach's Alpha values for these factors

are all greater than 0.6, indicating they are eligible for inclusion in an EFA. Variables with item-total correlation coefficients all greater than 0.3 were not eliminated. The 31 observed variables were then included in the EFA in the next step (Table 1).

*Table 1. Cronbach's Alpha test results*

No.	Factor	Initial observed variables	Observed variables after testing	Cronbach's Alpha
1	School Facilities (SF)	7	7	0.814
2	Service capacity (SC)	6	6	0.845
3	Student Support (SS)	5	5	0.846
4	Responsiveness (RES)	5	5	0.848
5	Reliability (REL)	5	5	0.849
6	Satisfaction (SA)	3	3	0.893

*Source: Research results*

#### **4.2. Factor Analysis Results**

The results of the Exploratory Factor Analysis (EFA) in Table 2 show that the research model explains 84.333% of the variance in student satisfaction. This means that the factors considered in this study, related to physical facilities and

services at the Faculty of Tourism - Hanoi Open University, can explain up to 84.33% of the level of student satisfaction. The KMO index ( $0.866 > 0.5$ ) and Bartlett's test (Sig. =  $0.000 < 0.05$ ) results also demonstrate that the factor analysis model is appropriate and the observed variables are closely correlated.

*Table 2. EFA Results*

Component	Initial Eigenvalues			Total Variance Explained		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	17.841	63.718	63.718	17.841	63.718	63.718
2	2.004	7.159	70.876	2.004	7.159	70.876
3	1.536	5.485	76.361	1.536	5.485	76.361
4	1.146	4.093	80.454	1.146	4.093	80.454
5	1.086	3.879	84.333	1.086	3.879	<b>84.333</b>
...	...	...	...	...	...	...
28	0.070	0.251	100.000			
Total Variance Explained is 84.333%						
Kaiser-Meyer-Olkin (KMO): 0.866 and Sig. is 0.000						

*Source: Research results*

Thus, through EFA, the proposed research model, including 5 factors influencing student satisfaction (School Facilities; Service capacity; Student Support; Responsiveness; Reliability), shows that the model is very good and does not require adjustment.

#### **4.3. Correlation test between Influencing Factors and Student Satisfaction**

The research results show that all considered influencing factors have a fairly strong correlation with student

satisfaction regarding physical facilities and services. The correlation coefficient (r) varies from 0.702 to 0.835. Notably,

service capacity has the strongest correlation with student satisfaction ( $r=0.835$ ;  $p<0.001$ ) (Table 3).

*Table 3. Correlation between Influencing Factors and Student Satisfaction*

Factor	SF	SC	SS	RES	REL
Student Satisfaction (SA)	0.790**	0.835**	0.702**	0.801**	0.780**

Note: \*\* Correlation is statistically significant at the  $p < 0.01$  level.

Source: Research results

The Pearson correlation test results indicate that the influencing factors are quite closely related to the level of student satisfaction. The variation in each factor affects overall satisfaction, thereby affirming their essential role in the university's strategy to improve service quality.

#### **4.4. Predictive Level of Influencing Factors on Student Satisfaction with Physical Facilities and Services**

The multiple regression analysis model with the dependent variable being student satisfaction with physical facilities and services yields the following results:

*Table 4. Multiple Linear Regression Model with dependent variable as Student Satisfaction with Physical Facilities and Services*

Independent Variable	Unstandardized Coefficients		Standardized Coefficients	t	p	VIF
	B	SE	Beta			
Hàng số	-0.159	0.095		-1.677	0.004	
School Facilities (SF)	.356	.036	.353	9.940	.000	1.332
Service capacity (SC)	.190	.033	.192	5.708	.000	1.263
Student Support (SS)	.113	.030	.121	3.746	.000	1.215
Responsiveness (RES)	.262	.036	.257	7.241	.000	1.332
Reliability (REL)	.116	.028	.120	4.119	.000	1.089

\*  $p < 0.05$ ;  $N = 433$ ;  $R^2 = 0.711$ ; Adjusted  $R^2 = 0.709$ ; Durbin Watson = 1.794.

Source: Research results

The results from Table 4 also show that the p-value of the t-test in the regression analysis for all independent variables is less than 0.05, indicating that independent variables such as: School Facilities, service capacity, Student Support, responsiveness, and reliability all significantly explain the dependent variable of student satisfaction, so no variables were excluded. The Variance Inflation Factor (VIF) for all independent variables is less than 2, indicating no multicollinearity. All regression

coefficients are greater than 0. Thus, all independent variables included in the regression analysis have a positive impact on the dependent variable. Based on the magnitude of the standardized Beta coefficients, the influence level of the factors is ranked in descending order as follows: School Facilities ( $\beta = 0.353$ ); Responsiveness ( $\beta = 0.257$ ); Service capacity ( $\beta = 0.192$ ); Student Support ( $\beta = 0.121$ ); Reliability ( $\beta = 0.120$ ).

Thus, School Facilities, Responsiveness, Service Capacity,

Student Support, and Reliability all positively impact student satisfaction with the Faculty of Tourism, Hanoi Open University's physical facilities and services. Among these, School Facilities have the strongest impact.

#### ***4.5. Discussion of research results***

According to the model testing results on factors affecting student satisfaction with physical facilities and services at the Faculty of Tourism, Hanoi Open University, all included factors have a positive influence on student satisfaction. Thus, hypotheses H01, H02, H03, H04, and H05 are confirmed. This also means that School Facilities, responsiveness, service capacity, Student Support, and reliability are positively correlated with student satisfaction. It can be understood that the higher the quality of physical facilities and services, the higher the level of student satisfaction will be. These results are similar to those of authors such as Chen and Stotlar (2012), Nguyen, T. X. H. et al. (2016), Le et al. (2021), Vu et al. (2021), and Than and Nguyen (2022).

In this study, the authors identified 5 factors influencing student satisfaction with physical facilities and services: the most important being School Facilities, followed by: Responsiveness, service capacity, Student Support, and reliability. The strong impact of school facilities and equipment, as well as responsiveness, on student satisfaction stems from the distinct nature of tourism education, a highly applied, practice-oriented discipline. As opposed to theory-heavy fields, tourism training requires students to learn in an environment associated with vocational simulation, practical experiences, and frequent interaction with physical learning conditions such as specialized practice rooms, projection equipment,

sound systems, libraries, Wi-Fi, and other academic support spaces. Consequently, the quality of physical facilities not only affects learning convenience but also directly impacts students' ability to hone their professional skills, their level of engagement in the learning process, and their perception of the overall training quality. Furthermore, responsiveness is highly valued because tourism students frequently require fast, timely, and flexible support during their academic activities, practical sessions, internships, and administrative procedures. In this context, prompt feedback and effective handling of student requests by the Faculty and University not only improve the learning experience but also foster a sense of being respected, accompanied, and supported among learners.

To enhance the reliability of the research model, the author group conducted in-depth interviews with five experts in education management and tourism currently working at the university. The experts all agreed that modern facilities, appropriate to the specific nature of the tourism industry, are a factor that directly and strongly influences student satisfaction, especially in the context of practice-oriented training. Academic and administrative support services need to be improved to support digitalization, convenience, and faster responses to student needs. One expert emphasized: "A synchronized investment in both practical equipment and human resources will significantly enhance the student learning experience. This directly impacts student engagement and their positive evaluation of the university." The analysis shows that the experts' opinions are consistent with the quantitative results and, at the same time, strengthen the practicality and applicability of the proposed research model.

In addition to data collected from experts, the author group conducted in-depth interviews with four full-time students from the Faculty of Tourism at Hanoi Open University. The interview content focused on the students' actual experiences with the facilities, service quality, and suggestions for improvement from the learners' perspective. A student majoring in Hotel Management expressed a desire for an upgrade in the quality of teaching equipment, such as projectors, microphones, and the Wi-Fi system, to ensure better learning conditions. In addition, all students mentioned the need for improvements in administrative procedures to increase speed, efficiency, and convenience for learners. Notably, students highly valued the human factor in the learning environment. Most of them acknowledged the lecturers, academic advisors, and faculty staff for their friendliness, dedication, and understanding. The teachers are always ready to listen, accompany, and provide timely support in solving students' difficulties, not only in their studies and research but also in their career orientation and personal lives.

## **V. Conclusion and recommendations**

Based on the level of influence of factors on student satisfaction with physical facilities and services at the Faculty of Tourism, Hanoi Open University, the authors propose five groups of specific, systematic solutions aimed at improving training quality and student satisfaction at the Faculty of Tourism.

### ***Solution 1: Upgrade and modernize the system of school facilities***

To enhance the quality of training in the context of modern education, an urgent requirement is a synchronized investment in the physical infrastructure system, oriented towards modernization and the application

of technology. Classrooms need to be fully equipped with teaching equipment, including projectors, air conditioners, standard-compliant sound systems, and high-speed Wi-Fi, to ensure comfortable learning conditions and effectively support teaching and learning activities. Specialized practice rooms need to be upgraded with advanced simulation software and equipment tailored to the specific training field, thereby strengthening students' professional skills. The library and self-study spaces also need to be renovated to be friendly and quiet, encouraging independent study and scientific research. In addition, the application of technology in the maintenance and supervision of facilities will contribute to building a safe, modern, and sustainable learning environment, laying the foundation for improving learners' satisfaction and learning efficiency.

### ***Solution 2: Enhance responsiveness***

In addition to upgrading physical facilities, it is necessary to promote administrative reform by simplifying and digitizing processes to optimize processing time, enhance service efficiency, and improve the learner experience. Establishing effective channels for receiving feedback, along with a transparent, timely handling process, will help build a friendly, trustworthy learning environment. At the same time, training a professional, student-centered administrative team with a positive service attitude is a key factor. Enhancing interaction through periodic surveys, dialogues, and direct meetings between the university and students helps to promptly grasp practical needs and adjust policies accordingly.

### ***Solution 3: Improve service capacity***

Improving staff capacity plays a particularly important role in enhancing

service quality. The university needs to organize regular training programs to foster professional expertise, communication, problem-solving, and soft skills among staff, aiming to achieve a professional service standard. The work environment should be built on the principles of friendliness, transparency, and mutual respect to foster a spirit of responsibility and dedication. At the same time, implementing student satisfaction surveys, combined with the application of data management technology, will help the university improve services, respond promptly, promote students' active participation in the learning process and support activities, and support the university's efforts to improve services.

***Solution 4: Strengthen student support***

Strengthening the connection between students, lecturers, and university staff is an important solution for enhancing the learning experience. The use of online platforms, social networks, and discussion forums facilitates interaction, sharing, and mutual support, thereby promoting cohesion and understanding among all parties. In addition, developing academic support programs, career counseling, and mental health care plays an essential role in accompanying students. Training communication and listening skills for staff and lecturers contributes to building a humane and friendly educational environment that emphasizes empathy and cooperation in the comprehensive education process.

***Solution 5: Enhance reliability***

Enhancing the reliability of educational services requires the university to establish clear, specific work processes and ensure their consistent, serious implementation across the entire system. It is necessary to conduct regular inspections, supervision, and evaluation

of service quality to promptly detect errors and make adjustments in line with established standards. In addition, transparency in information about services, procedures, and student support policies should be promoted through digital communication channels. Building a professional, modern, and friendly image for the Faculty of Tourism will strengthen learners' and stakeholders' trust.

The synchronous implementation of the above solutions requires close coordination between the Faculty, the University, functional units, and students. At the same time, there needs to be a strategy for reasonable resource allocation and for raising awareness of the role of physical facilities and services. This is an important foundation for building a high-quality, modern, and student-centered educational environment.

This study is subject to certain limitations, primarily due to the use of non-random sampling, which may constrain the generalizability of the findings to broader student populations. Future research should aim to incorporate more heterogeneous samples and account for additional explanatory variables, including individual background characteristics and sociocultural context, to enhance the robustness and comprehensiveness of the analysis.

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## MỘT SỐ GIẢI PHÁP NÂNG CAO SỰ HÀI LÒNG CỦA SINH VIÊN VỀ ĐIỀU KIỆN CƠ SỞ VẬT CHẤT VÀ PHỤC VỤ CỦA KHOA DU LỊCH, TRƯỜNG ĐẠI HỌC MỞ HÀ NỘI

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**Tóm tắt:** Điều kiện cơ sở vật chất và phục vụ là dịch vụ không thể thiếu trong các trường đại học và có ảnh hưởng gián tiếp đến hiệu quả đào tạo. Điều kiện cơ sở vật chất và phục vụ tốt sẽ giúp cho người học có tâm lý thoải mái, tạo động lực học tập và nghiên cứu, từ đó có thể nâng cao kết quả học tập cho người học. Nhận thức rõ được tầm quan trọng của vấn đề nghiên cứu, nhóm tác giả đã tiến hành khảo sát 433 sinh viên về sự hài lòng đối với điều kiện cơ sở vật chất và phục vụ tại Khoa Du lịch, Trường Đại học Mở Hà Nội. Trên cơ sở đó đề xuất một số giải pháp nâng cao sự hài lòng của sinh viên về điều kiện cơ sở vật chất và phục vụ của Khoa và Trường trong thời gian tới.

**Từ khóa:** điều kiện cơ sở vật chất và phục vụ, Khoa Du lịch, sự hài lòng của sinh viên, Trường Đại học Mở Hà Nội

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