



RESEARCH ARTICLE

Lecturers' Satisfaction with Facilities of Non-Public Universities

Nguyen Van Thu¹, Nguyen Trung Hieu^{2*}, Cao Thi Anh³, Le The Anh⁴

¹ University of Labour and Social Affairs, Vietnam

² PhD candidate, Hanoi University of Business and Technology, Vietnam

³ Hanoi College of High Technology, Vietnam

⁴ Dai Nam University, Vietnam

ARTICLE INFO	ABSTRACT
Received: Sep 30, 2024	The objective of this study is to present, analyze, and measure the lecturers' satisfaction with the facilities of non-public universities. Based on the research overview and expert interview results, the lecturers' satisfaction with the facilities of non-public universities is measured by 5 attributes (components). We use both qualitative and quantitative research methods, quantitative research methods with the support of SPSS software. The authors conduct descriptive statistics and analyze the reliability of the scales through Cronbach's alpha coefficient, EFA analysis and an independent T-test. The research results show that the surveyed subjects evaluated the lecturers' satisfaction with the facilities of non-public universities at an average level of 3.0246/5; the Cronbach's alpha coefficient of the component attributes is greater than 0.6; and is statistically significant. There is not a statistically significant difference in the lecturers' satisfaction with facilities of non-public universities between these different education levels. Based on the research results, the author proposes a number of recommendations to improve the facilities of non-public universities.
Accepted: Nov 13, 2024	
Keywords	
Facilities	
Non-Public Universities	
Economics	
Business Administration	
Lecturers	
*Corresponding Author:	
hieuhuyenminh@gmail.com	

INTRODUCTION

In the context of higher education, research on stakeholder satisfaction is a very necessary topic for universities to be able to adjust and develop corresponding policies.

In recent years, many non-public universities have been established, contributing to increasing competition in the market for providing university education services in Vietnam. With the goal of attracting students and increasing tuition fees, universities must have good facilities, spacious schools, modern teaching equipment and good training quality.

In addition to developing training programs suitable for each training sector, non-public universities always pay attention to investing in facilities and learning equipment to ensure that training and scientific research activities achieve the set goals.

This study will focus on the main objective of assessing lecturers' satisfaction with the facilities of non-public universities.

This study is structured as follows: The next section will present an overview of the study, and Section 3 will describe the data collection process and the data analysis methods used. Section 4 will analyze

the research results, and the final section will present the implications and recommendations for the study.

LITERATURE REVIEW

Job satisfaction is a positive emotional state based on an individual’s work experience (Evans, 2001). Satisfaction is also the degree to which an employee is satisfied with the “rewards” he or she receives compared to what he or she has contributed to the organization (Statt, 2004). High job satisfaction leads to higher performance at both the individual and organizational levels (Judge & Associates, 2001). Conversely, if job expectations are uncertain, workload is heavier, working conditions are poor, and relationships with managers are poor, they will lead to emotional exhaustion and reduced job satisfaction and ultimately affect individual work performance (Hang-Yue et al., 2005). Therefore, to improve employee satisfaction, each organization must pay attention to its relationship with employees. Some studies have shown that employees feel more satisfied with their jobs when they perceive that the organization they are working for is recognized by society. Because, then, in the eyes of employees, the image of the organization is very positive and they feel more connected to that organization (Galbreath, 2010).

Table 1: Attributes (components) of lecturers' satisfaction with facilities of non-public universities

Code	Description
SAT1	To facilitate training and research operations, offices, classrooms, and functional spaces are appropriately furnished.
SAT2	Training and research activities are supported by updated library and pertinent learning resources.
SAT3	Appropriate and updated laboratories, facilities and equipment to support training and research activities.
SAT4	Appropriate and up-to-date information technology to support training and research activities.
SAT5	Overall facility satisfaction.

Source: Author's synthesis and expert opinion

METHODOLOGY

Data collection and scale design

This study used a questionnaire survey method with the participation of lecturers at non-public universities in Hanoi, including universities training in economics, engineering, etc. The reason for choosing Hanoi for the study is because Hanoi is one of the places where most of the economic, cultural and social activities in Vietnam are concentrated and especially attracts the largest number of non-public universities in Vietnam.

To ensure representativeness of the collected data, we used the random sampling method.

Of the total 250 questionnaires distributed, 195 were returned (response rate: 78%). Only 170 questionnaires with a completion rate above 80% were used for analysis. These questionnaires were sent between May and July 2024. The questionnaires were sent directly to lecturers, either directly or indirectly, through the Department, Faculty and University Leadership Board.

The questionnaire was divided into two parts. Part I included questions on the personal characteristics of lecturers. Part II included questions measuring variables on the facilities of non-public universities (these questions were inherited from the results of previous studies and the opinions of interviewed experts). Except for the questions on personal characteristics, the remaining questions used a Likert scale, in which 1 strongly disagreed and 5 strongly agreed.

Analytical method

In this study, we used both qualitative and quantitative research methods. With the qualitative research method, we synthesized relevant documents, interviewed experts and conducted group discussions. We interviewed 7 experts who are administrators of non-public universities and lecturers working at non-public universities with over 10 years of experience. The interview content was prepared in advance around the research topic. We also contacted the experts in advance to arrange the interview schedule; the interview time for each expert was about 30 minutes. With the quantitative research method, we use SPSS 22 software for data analysis. First, the collected data will be analyzed to re-determine the components of the facilities of non-public universities. Then, we perform descriptive statistics, analyze the reliability of the scales through the Cronbach alpha coefficient, exploratory factor analysis (EFA), and comparative analysis with an independent T-test.

Study sample

Table 2: Respondents by academic standards and career seniority

	Frequency	Percent	Cumulative Percent
Education level			
Master	97	57.1	57.1
Doctor	73	42.9	100.0
Career seniority			
Smaller than 5 years	36	21.2	21.2
From 5 to 10 years	89	52.4	73.5
10 years or higher	45	26.5	100.0
Total	170	100.0	

Source: Prepared by the authors (2024) and SPSS software.

Information on the data collected is shown in Table 2. It shows that among them, 97 have qualified master, accounting for 57.1%; and the rest have qualified doctor, accounting for 42.9%. Respondents have career seniority: smaller than 5 years accounted for 21.2%; from 5 to 10 years accounted for 52.4%; and the remaining accounted for 26.5%.

RESULTS

Descriptive statistics

Table 3: Descriptive statistics explaining the scales of lecturers' satisfaction with facilities of non-public universities

Code	N	Min	Max	Mean	Std. Deviation	Skewness		Kurtosis	
						Statistic	Std. Error	Statistic	Std. Error
SAT1	170	1.0	5.0	2.906	.8514	.939	.186	1.123	.370
SAT2	170	1.0	5.0	3.065	.8847	-.490	.186	-.049	.370
SAT3	170	1.0	5.0	3.241	1.0237	-.567	.186	-.204	.370
SAT4	170	1.0	5.0	2.729	.8550	-.022	.186	.046	.370
SAT5	170	1.0	5.0	3.182	1.0302	-.538	.186	-.220	.370
Valid N (listwise)	170			3.0246					

Source: Author's synthesis and from SPSS software

The statistical results from Table 3 show that the survey subjects agree with the variable that lecturers' satisfaction with facilities of non-public universities includes 5 component attributes as above, which is average, with an average value of 3.0246 compared to the highest level of the 5-point Likerts scale. All 5 attributes are rated at an average level of 2.906 or higher.

Cronbach's Alpha analysis results

The analysis of the scale of lecturers' satisfaction with facilities of non-public universities was performed using the Cronbach's alpha reliability coefficient. The results in Table 4 show that these attributes have Cronbach's alpha coefficients greater than 0.6 and the correlation coefficients of all attributes are greater than 0.3. Therefore, all attributes of lecturers' satisfaction with facilities of non-public universities are statistically significant (Hoang Trong & Chu Nguyen Mong Ngoc, 2008; Hair et al., 2009; Hair et al., 2014).

Table 4: Results of reliability analysis of scales through Cronbach's alpha coefficient

Cronbach's Alpha	N of Items			
0.867	5			
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SAT1	12.218	10.301	.581	.864
SAT2	12.059	10.115	.587	.863
SAT3	11.882	8.388	.804	.809
SAT4	12.394	9.873	.670	.845
SAT5	11.941	8.281	.820	.804

Source: Author's synthesis and from SPSS software.

Results of exploratory factor analysis (EFA)

The component and variance analysis was used to perform exploratory factor analysis (EFA) in Table 5 and Table 6.

The KMO index is 0.847, greater than 0.5 (>0.5), according to the Bartlett test results used to test the hypothesis about the correlation between observed variables. The extracted variance is 65.421%, meaning that these five observed variables account for 65.421% of the variation in the data. The Bartlett test is statistically significant (Sig. <0.05). Therefore, it can be said that the study's indicators satisfy the requirements of EFA analysis (Hoang Trong & Chu Nguyen Mong Ngoc, 2008; Hair et al., 2009; Hair et al., 2014).

These statistics demonstrate that the analysis of research data to explore factors is appropriate. Through ensuring the quality of the scale and testing the EFA model, the author has identified five components of lecturers' satisfaction with facilities of non-public universities (Hoang & Chu, 2008; Hair et al., 2009; Hair et al., 2014).

Table 5: Results of exploratory factor analysis (EFA) (KMO and Bartlett's Test)

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.847	
Bartlett's Test of Sphericity	Approx. Chi-Square	424.540
	Df	10
	Sig.	.000

Source: Author's synthesis and from SPSS software.

Table 6: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.271	65.421	65.421	3.271	65.421	65.421
2	.631	12.613	78.033			
3	.504	10.073	88.106			
4	.412	8.248	96.354			
5	.182	3.646	100.000			

Source: Author's synthesis and from SPSS software.

Independent T-test: education level

A comparison of the results of the evaluation of the differences in the lecturers' satisfaction with facilities of non-public universities with participants of different education levels (master or doctor) can be seen in Table 7. According to the results shown in Table 7, sig Levene's test is 0.826, which is more than 0.05. The variance between a master and a doctor is not different. Moreover, the sig value t-test is 0.871, which is more than 0.05, which means that there is not a statistically significant difference in the lecturers' satisfaction with facilities of non-public universities between these different education levels (Hoang & Chu, 2008; Hair et al., 2009; Hair et al., 2014).

Table 7: Differences in the lecturers' satisfaction with facilities of non-public universities with participants of different education levels-Independent Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
lecturer satisfaction (SAT)	Equal variances assumed	.048	.826	-.163	168	.871	-.01912	.11713	-.25035	.21211
	Equal variances not assumed			-.162	151.026	.871	-.01912	.11795	-.25216	.21392

Source: Prepared by the authors (2024) and SPSS software.

DISCUSSION

Most non-public universities have a full system of offices, classrooms and functional rooms according to regulations. Offices are equipped with computers, printers, air conditioners, desks and chairs... Classrooms and functional rooms are fully equipped with equipment such as computers, projectors, televisions, sound systems, boards, desks and chairs, air conditioners, and fans.

Every year, based on funding sources and actual needs, non-public universities have plans to propose purchasing new and upgrading facilities and equipment. The equipment is purchased synchronously, meeting technical requirements. However, some departments' offices are not fully equipped with equipment for research and teaching.

Most non-public universities ensure the conditions of facilities and learning equipment for lecturers, staff and learners to ensure training and scientific research activities to achieve the set goals. This is

demonstrated through the system of offices, classrooms, libraries and functional rooms with appropriate equipment and learning resources, basically meeting the training requirements and scientific tasks. Most non-public universities have enough computer practice rooms, foreign language classrooms and information technology systems with appropriate equipment, regularly replaced and repaired.

Educational innovation has been taking place on a global scale; in that context, promoting human resource training at university and postgraduate levels is very meaningful for the current international integration process of our country. One of the measures contributing to improving the training quality of non-public universities is the consolidation of the Library and Documentation Group. The Information Center - Library is an independent unit equivalent to a department under the university, so that the library becomes the main source of information serving the training and scientific research of lecturers and learners.

The library is equipped with computers to handle book processing and for readers to look up information on documents. The library has electronic library management software with modules: supplementing, cataloging, searching, managing circulation of publications, managing information about readers, and borrowing and returning status, which helps to search for documents via computers. Currently, at the libraries of most non-public universities, there are forms of service for readers such as: reading and researching on-site; lending documents to take home; selling and renting textbooks; searching for information and the internet; reading newspapers, magazines, theses, dissertations, topics, and theses. All the working and service rooms of the library have been equipped with air conditioning systems, fans, ensuring ventilation, adequate lighting and scientific arrangement, and neat hygiene for staff and readers to work and study in the library. Along with that, the library has a layout diagram with internal regulations, instructions for use and service forms. However, the connection and sharing of external databases has not been really effective in serving training and scientific research activities.

Most non-public universities have enough computer labs and foreign language classrooms. These rooms mainly serve basic computer science subjects, specialized computer science, foreign languages and practical subjects. These rooms are centrally located, scientifically arranged, airy, fully lit, with tables and chairs, servers, projectors, computers, air conditioners, network systems, etc. to help lecturers and students feel secure about their health and meet the requirements of teaching and learning. Every year, based on the usage status, non-public universities have plans to repair, maintain, upgrade and replace computer lab equipment to meet the needs of teaching and learning. After that, non-public universities have a summary report evaluating the plan for purchasing, repairing, maintaining and servicing equipment.

Application of information technology is one of the important factors that bring high efficiency in training and scientific research at non-public universities. During the process of formation and development, non-public universities have prioritized funding sources and equipped with relatively adequate information technology equipment, effectively supporting teaching, learning and scientific research activities.

Currently, most non-public universities have websites, and each faculty or department also has a website and an Internet network system installed throughout the campus with dedicated servers. Non-public universities also have many fiber optic lines and leased lines for users to access the Internet, with high connection speeds available 24/7. All computers in departments, faculties, centers, classrooms, halls, meeting rooms and foreign language classrooms of the school are connected to the intranet and the Internet. The Internet and wifi system is used free of charge throughout the school to serve the management, training, research and learning activities of staff, lecturers and students.

Implications

In general, universities nationwide in general and non-public universities in particular are not up to standard in terms of facilities and equipment for higher education.

Most of the non-public universities are still young; the oldest university is Thang Long University (established in 1988, 36 years); Phuong Dong University was established in 1994 (30 years); and Hanoi University of Business and Technology was established in 1996 (28 years), so the school facilities and equipment are still lacking. Many schools still have to rent lecture halls. Because they were newly established, the school development budget during this period was mainly focused on building facilities to brand the university. In addition to the training policy for young lecturers and leading successors, non-public universities should have a roadmap to gradually improve the quality of their lecturers to international standards and have a plan for facilities.

For non-public universities, which are a new type of school that has appeared in Vietnam after the renovation period, the schools are newly established, so they have to be built from scratch in terms of facilities, teaching staff and school brand. In the university environment, the ERP system should be adjusted, adding and removing some subsystems to suit, such as the human resource management subsystem (staff, students), financial management subsystem, library management subsystem, diploma management subsystem, learning management subsystem, training, and facilities.

The inequality between non-public universities and public universities is that non-public universities have to take care of their own finances, pay taxes, do not receive investment from the budget, have inadequate land policies, but have to compete with public universities that have available facilities and are invested from the state budget.

Due to the requirement that non-public universities must be completely autonomous in all operating costs and self-sufficient in facilities, in order for the school to survive and develop, the school and all staff and lecturers must be proactive and creative in teaching to adapt to the needs of society and learners. Teach subjects that are in demand by society and learners. Only then will non-public universities have the opportunity to enroll students and have a source of income to cover all operating costs of the university.

The school budget is divided into many different budget funds to serve the university's spending: the fund to maintain regular operations to pay salaries and bonuses to university staff and lecturers, the fund to invest in school facilities and construction, the welfare fund, the university's human resource development fund, etc.

The university budget is used for activities such as costs for education, training and development of lecturers, costs for incentives to motivate lecturers to develop, costs for investment in teaching and research facilities, etc. When the university budget is limited, spending on school activities will be limited.

With some regulations on the ratio of 1 lecturer to the number of students, regulations on university education facilities, etc., and regulations on output standard assessment... these are challenges for non-public universities, forcing them to try very hard.

Despite its important contribution to the research on facilities in non-public universities, this study still has some limitations. Firstly, the data collected was only from lecturers at non-public universities in Hanoi and therefore is still quite small compared to the number of lecturers teaching at non-public universities today. Secondly, this study built four scales of lecturers' satisfaction with facilities of non-public universities, but in reality there are still some scales that this study has not mentioned. Future studies can increase the sample size of lecturers teaching at non-public universities in all provinces and cities in Vietnam and expand the scale of lecturers' satisfaction with facilities of non-public universities.

ACKNOWLEDGEMENT

The authors would like to thank University of Labour and Social Affairs, Vietnam; Hanoi University of Business and Technology, Vietnam; Hanoi College of High Technology, Vietnam; Dai Nam University, Vietnam and other researchers and reviewers who supported us during the study time.

CONFLICTS OF INTEREST: The authors declare no conflict of interest.

REFERENCES

- Evans, L. (2001), 'Delving deeper into morale, job satisfaction and motivation among education professionals: reexamining the leadership dimension', *Educational Management Administration*, 29(3), 291-306.
- Galbreath, J. (2010), 'How does corporate social responsibility benefit firms? Evidence from Australia', *European Business Review*, 22(4), 411-431.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2009). *Multivariate Data Analysis* (7th ed.). Upper Saddle River, NJ: Prentice Hall International.
- Hair, J. F., Henseler, J., Dijkstra, T., Sarstedt, M., Ringle, C., Diamantopoulos, A., Straub, D., Ketchen, D., GTM, H., & Calantone, R. (2014). Common beliefs and reality about partial least squares: comments on Rönkkö and Evermann. *Organizational Research Methods*, 17(2), 182-209.
- Hang-Yue, N., Foley, S. & Loi, R. (2005), 'Work role stressors and turnover intentions: a study of professional clergy in Hong Kong', *International Journal of Human Resource Management*, 16(11), 2133-2146
- Hoang, T., & Chu, N. M. N. (2008). *Research data analysis using SPSS*, Hong Duc Publishing House. [Vietnamese].
- Judge, T.A., Thoresen, C.J., Bono, J.E. & Patton, G.K. (2001), 'The job satisfaction-job performance relationship: A qualitative and quantitative Review', *Psychological Bulletin*, 127(3), 376-407.
- Statt, D.A. (2004), *The Routledge Dictionary of Business Management*, Third edition, Routledge Publishing, Detroit.