

Assessing Impacts of University Autonomy Policies on Universities' Competitiveness in Vietnam

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Abstract: - This research aims to assess the impacts of factors in university autonomy policies on universities' competitiveness in Vietnam. It has been revealed that since university autonomy policies were implemented, universities have paid greater attention to the formation and improvement of their competitiveness, targeting sustainable and stable development. The survey related to Vietnam's universities' competitiveness was administered to 486 individuals. Through exploratory factor analysis (EFA) and confirmatory factor analysis (CFA), five factors affecting institutions' competitiveness were identified, including Academic and training autonomy, Financial autonomy, Organization and staffing autonomy, International cooperation autonomy, and Quality assurance autonomy. Hypothesis testing and regression analysis showed that institutions granted great autonomy tend to focus more on forming and improving their competitiveness, and financial autonomy is the factor with the biggest impact on their competitiveness. As a result, from the authors' perspective, it is crucial that the Ministry of Education and Training quickly accelerate autonomy delegation, and each university invests more time and effort in forming and improving their competitiveness based on the level of autonomy granted.

Key-Words: - competitiveness, university, higher education, university's competitiveness, university autonomy, university autonomy policies.

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1 Introduction

The term "competitiveness" originated from Economics, referring to the ability of an economy or a specific business to compete in terms of capital, technology, human resources, customer attraction, economic efficiency, and so on. The term has then been used in the field of higher education. In fact, in higher education in the world and Vietnam, competition among universities is becoming so intense that many of them have resorted to mergers or dissolution due to weak or no competitiveness. Such competition can be witnessed at national, regional, and global levels. Several factors lead to and have impacts on universities' competitiveness, including their rights and levels of autonomy. Up to the present, to the authors' knowledge, there has not been any research assessing the impacts of factors in university autonomy policies on universities' competitiveness in Vietnam.

This research served as a useful source of information and insights which scholars, macro

policy-makers, lecturers, university students, and postgraduates may resort to to make comparisons and contrast between the current impacts of university autonomy policies on universities' competitiveness in Vietnam and in South East Asia countries (which have similar levels of socio-economic and education development), and such impacts on universities around the world of the same rankings.

2 Theoretical Background

2.1 Theories on Competitiveness

According to [1], amid globalization, education socialization, and university autonomy, universities' needs for formation and improvement of competitiveness have recently reached a new level. Each of their activities in any aspect is affected by the surroundings and the universities themselves, requiring higher competitiveness for

survival and sustainable development in the current context. When higher education institutions start to marketize, competition is inevitable. As a result, they no longer focus solely on teaching, but have attempted to do research, transfer knowledge, and offer community and social services as well. However, identifying the target “customers’ of research and social services is more complex than that of teaching as in teaching, the first and foremost “customers” are students accompanied by their families, and businesses (or employers). Therefore, the quality of research and research staff, as well as the quality of knowledge transfer and social services have become indices denoting universities’ competitiveness.

Discussing competitiveness, there are currently three ways to interpret the term. Firstly, some researchers have viewed universities’ competitiveness purely from a business perspective. It means universities’ competitiveness is the same as that of businesses aiming at profits in general, [2]. Secondly, universities’ competitiveness is considered the outcomes of the institutions in the university ranking system, [3]. Such an approach is different from the first perspective as the important factors involved in the latter such as revenue or profits are excluded in the former. Lastly, combining both of the above viewpoints, some scholars took into account elements of businesses’ competitiveness and typical features of universities when discussing universities’ competitiveness, [4]. The above approaches may either contradict or support each other from time to time, which at the same time, have pointed out that there is a research gap in association with universities’ competitiveness, leading to the need of developing a solid theoretical base for the subject matter.

According to [1], universities’ competitiveness refers to their ability to meet the expectations of stakeholders such as students, the government, businesses, and the community in a way that outperforms their rivals of the same class.

In [5], the author stated that universities’ competitiveness is reflected through their capabilities to satisfy the demands of both internal and external stakeholders based on the prevalent competitive advantages (which are established based on the internal and external conditions).

According to [4], universities’ competitiveness is identified in association with the analysis of their rankings including the ratio of students and lecturers, the percentage of citations per lecturer, the ratio of international students/lecturers, profits from innovation activities, and profits per student/lecturer.

In [6], the author thought that universities’ competitiveness involves (1) their ability to maintain their position using their knowledge-related offerings in a certain educational segment on the global scale, (2) their ability to compete in scientific research globally, (3) their ability to offer quality training services of international standards in each discipline, and (4) their ability to carry out further social missions.

From the authors’ observation and perspective, the conception of universities’ competitiveness in [6], is of high consensus and could be adopted and is highly suitable with the nature of this particular paper.

2.2 Theories on University Autonomy

Since 2014, by Resolution 77/NQ-CP, Vietnam’s Government has piloted university autonomy in certain higher education institutions, which as a result, has led to unprecedented competition among public ones. It can become the driving force boosting universities’ proactiveness, creativity, increased performance, and diversification of training modes, better meeting the nation’s labor needs. On the other hand, autonomy means universities will no longer be subsidized by the State, which has served as a major income source for most public institutions. Pressure from competition for survival without financial support from the State budget requires the institutions to make greater efforts to be able to stand out. Despite increasingly intense competition in various forms and patterns, higher education institutions are still struggling to improve their competitiveness, which partly results from their inability to identify the concept and constituents of competitiveness acting as the basis for solutions.

Several studies have pointed out that university autonomy includes the following factors: Training autonomy, financial autonomy, Organizational autonomy, and Facility autonomy. University autonomy is inevitable and will be granted to institutions on a bigger scale.

In [7], the author pointed out the five factors of university autonomy, which are Academic and training autonomy, Financial and asset autonomy, Staffing and organizational autonomy, International cooperation autonomy, and Quality assurance autonomy. This viewpoint has proved itself to be the most comprehensive, reflecting the nature of university autonomy, and is used in this research.

3 Research Model, Sample, Hypotheses and Methodology

Based on previous studies, the authors developed research model which is illustrated in Figure 1:

3.1 Research Model

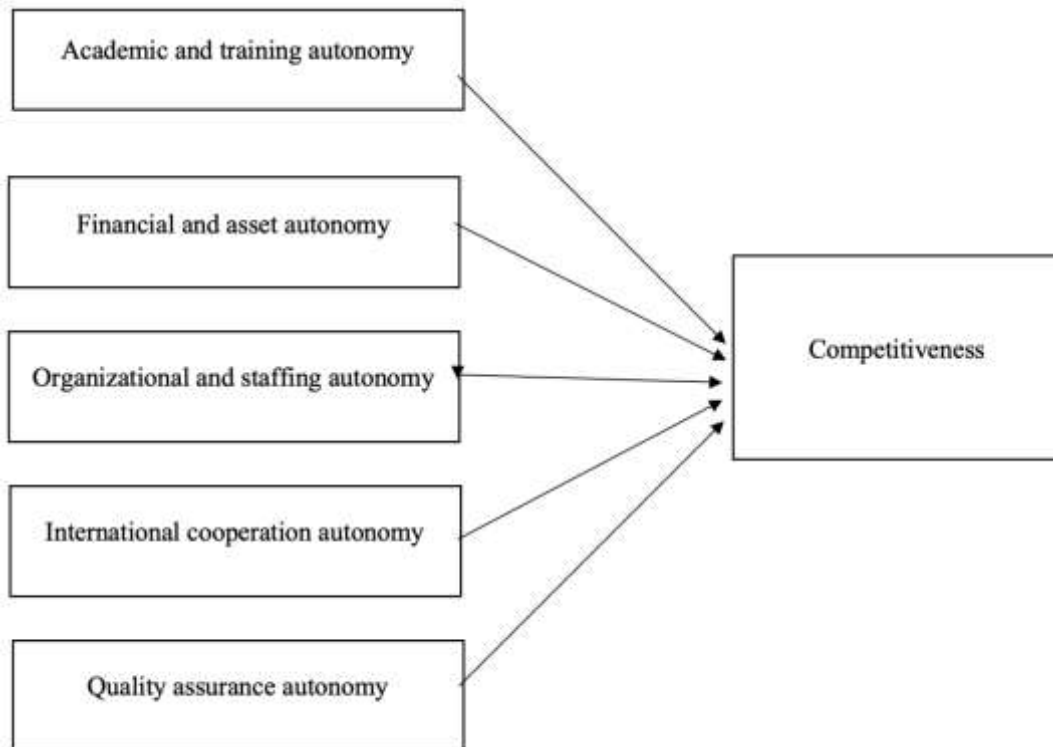


Fig. 1: Factors in university autonomy affecting universities' competitiveness
(Source: Author's analysis)

The independent variable is university autonomy which includes five factors: (1) Academic and training autonomy, (2) Financial and asset autonomy, (3) Organizational and staffing autonomy, (4) International cooperation autonomy, and (5) Quality assurance autonomy (Le Ngoc Hung, 2018). These factors were conceptualized and utilized in the questionnaire design step with 23 observed variables.

The dependent variable is competitiveness which consists of (1) an institution's ability to maintain its position using its knowledge-related offerings in a certain educational segment on the global scale, (2) its ability to maintain competitive advantages in scientific research globally, (3) its ability to offer quality training services of international standards in each discipline, and (4) its ability to carry out further social missions, [6].

3.2 Research Sample

The authors administered the survey to 502 individuals, and in return, got 486/502 valid

responses, accounting for 96.81%. The respondents include managing, teaching, and administrative staff from 10 universities in Vietnam. Among these 10 universities, there are two affiliated ones under Vietnam National University, Hanoi: International School and University of Social Sciences and Humanities. Vietnam National University, Hanoi was established by Decree 97/CP issued on December 10, 1993, by the Government which ordered the reorganization of three big institutions in Hanoi. VNU started operations under the Prime Minister's Regulations on September 5, 1994. The other eight participating institutions are all based in Hanoi and follow a multidisciplinary model. All of the participating universities have been granted great autonomy and held a place in the top prestigious institutions in the country. Besides, among the 10 universities, nine of them are public institutions, while FPT University is a private one established by FPT Group.

Table 1 illustrates the details of the respondents.

Table 1. Description of the research sample

No.	Criteria	Number (people)	Percentage
1	<i>Affiliation</i>		
	International School, Vietnam National University, Hanoi	39/486	8.02%
	Foreign Trade University	44/486	9.05%
	Hanoi University of Science and Technology	69/486	14.19%
	University of Social Sciences and Humanities, Vietnam National University, Hanoi	40/486	8.23%
	University of Science, Vietnam National University, Hanoi	47/486	9.67%
	Ha Noi University of Business and Technology	38/486	7.81%
	Diplomatic Academy of Vietnam	50/486	10.28%
	Banking Academy	45/486	9.25%
	Hanoi University	53/486	10.90%
FPT University	61/486	12.60%	
2	<i>Gender</i>		
	Male	257/486	52.88%
	Female	229/486	47.12%
3	<i>Qualifications, academic titles, degrees</i>		
	Master	268/486	55.14%
	Doctor	182/486	37.44%
	Associate Professor, Doctor	29/486	5.96%
	Professor, Doctor	7/486	1.46%

(Source: Author's analysis)

3.3 Research Hypotheses

In this particular paper, the authors tested the following hypotheses:

- (1) Academic and training autonomy is proportional to universities' ability to offer training services of international standards in each discipline;
- (2) Financial and asset autonomy is inversely proportional to their ability to carry out further social services;
- (3) Quality assurance autonomy is proportional to their ability to maintain their position using their knowledge-related offerings in a certain educational segment on a global scale.

3.4 Research Methodology

This research made use of the specific methods as follows: (1) Exploratory factor analysis to explore factors in university autonomy that affect institutions' competitiveness, (2) Confirmatory factor analysis to test the research model and identify factors in university autonomy that affect their competitiveness, (3) Hypothesis testing to identify whether the original hypotheses were to be accepted or rejected, and (4) Linear regression analysis to identify the impact weights of the factors in university autonomy that affect institutions' competitiveness. Moreover, the authors also made use of an expert research method in treating two keywords (university autonomy policy and competitiveness), facilitating the development of the research model and questionnaire design. This method was also adopted when the authors needed to give

feedback and make a contrast and comparison the analysis results with the findings of previous studies by other researchers. Last but not least, interviews were used to gather the necessary data for theoretical framework development. To be more specific, the authors conducted interviews with stakeholders regarding the competitiveness of ten participating universities. This method allowed the authors to quickly and directly collect useful information, facilitating the following research activities.

3.5 Coding Observed Variables

The observed variables were coded as shown in Table 2 for input in SPSS software.

Table 2. Coding observed variables

No.	Code	Detail
Independent variables		
1	TCHT1-TCHT6	Academic and training autonomy (6 observed variables)
2	TCTC1-TCTC4	Financial and asset autonomy (4 observed variables)
3	TCNS1-TCNS3	Organizational and staffing autonomy (3 observed variables)
4	TCHTQT1-TCHTQT3	International cooperation autonomy (3 observed variables)
5	TCDBCL1-TCDBCL3	Quality assurance autonomy (3 observed variables)
Dependent variables		
1	NLCT1	Universities' ability to maintain their position using their knowledge-related offerings in a certain educational segment on a global scale
2	NLCT2	Their ability to maintain competitive advantages in scientific research globally
3	NLCT3	Their ability to offer quality training services of international standards in each discipline
4	NLCT4	Their ability to carry out further social missions

(Source: Author's analysis)

4 Findings and Discussion

4.1 Scale Testing Results

Table 3 exhibited the Cronbach's Alpha results of all scales. To be more specific, the Cronbach's Alpha results of all scales of the independent variable

(University autonomy) met the requirement (ranging from 0.759 to 0.788) and could be used in the following quantitative analysis. Those of the scales of the dependent variable (competitiveness) also met the requirement (ranging from 0.712 to 0.799).

Table 3. Cronbach's Alpha of the scales

Scale	Mean if Item Deleted	Variance if Item Deleted	Corrected Item-Correlation	Total Cronbach's Alpha if Item Deleted
Independent variable				
TCHT1	72.18	35.725	0.514	0.761
TCHT2	72.43	35.884	0.472	0.763
TCHT3	72.31	35.085	0.525	0.759
TCHT4	72.34	35.459	0.490	0.761
TCHT5	72.36	34.899	0.509	0.759
TCHT6	72.33	35.799	0.469	0.763
TCTC1	72.20	37.657	0.251	0.778
TCTC2	72.43	39.379	0.078	0.788
TCTC3	72.48	37.464	0.311	0.774
TCTC4	72.52	38.919	0.152	0.783
TCNS1	72.42	36.448	.470	0.764
TCNS2	72.60	36.990	.388	0.769
TCNS3	72.57	36.914	.428	0.767
TCHTQT1	72.53	36.393	0.472	0.764
TCHTQT2	72.69	36.499	0.468	0.764
TCHTQT3	72.63	36.094	0.462	0.764
TCDBCL1	73.01	37.646	0.195	0.784
TCDBCL2	73.06	38.320	0.128	0.790
TCDBCL3	71.98	38.717	0.087	0.793
Dependent variables				
NLCT1	70.15	31.641	0.378	0.799
NLCT2	72.44	32.358	0.478	0.712
NLCT3	73.18	33.792	0.367	0.782
NLCT4	71.62	37.415	0.98	0.761

(Source: SPSS)

4.2 KMO and Bartlett’s Test Results

Table 4. KMO and Bartlett’s test results

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.791
Bartlett's Test of Sphericity	Approx. Chi-Square	1356.538
	df	171
	Sig.	.000

(Source: SPSS)

Table 4 shows the KMO and Bartlett’s test results. It could be seen that all of the results were satisfactory. EFA results using Principal Component Analysis and Varimax Orthogonal Rotation which stopped when the Eigenvalue of the observed variables of independent factors reached or went over 1. The EFA results met the standards and all 23 observed variables could be used for further analysis. Besides, Bartlett's test results with Sig. = 0.000 < 0.05 and KMO test result of 0.791 > 0.5 were also satisfactory.

4.3 Exploratory Factor Analysis

The Exploratory factor analysis results are shown in Table 5. In detail, the observed variables of the independent variable were all convergent and categorized for the right factors for which they had been assumed in the first place.

Table 5. Exploratory factor analysis

	1	2	3	4
TCHT3	.940			
TCHT6	.917			
TCHT4	.894			
TCHT1	.889			
TCHT5	.870			
TCHT2	.857			
TCHTQT1		.866		
TCNS2		.857		
TCHTQT2		.845		
TCNS3		.831		
TCHTQT3		.790		
TCNS1		.774		
TCDBCL1			.936	
TCDBCL3			.935	
TCDBCL2			.933	
TCTC2				.828
TCTC3				.769
TCTC4				.762
TCTC1				.619

(Source: SPSS)

The EFA results showed that five factors of the independent variable (university autonomy policy) all affected the universities’ competitiveness. The factors included (1) Academic and training autonomy, (2) Financial and asset autonomy, (3) Organizational and staffing autonomy, (4) International cooperation

autonomy, and (5) Quality assurance autonomy. This result was similar and aligned with what had been found in [7].

4.4 Confirmatory Factor Analysis (CFA)

Figure 2 presented the CFA results, which showed that the developed research model was appropriate and needless of adjustments, the factors were organized logically and reflected the true conceptions of each factor.

CFA results revealed that there were six observed variables related to Academic and training autonomy, four related to Financial autonomy, and three related to Quality assurance autonomy. Such results were similar to and aligned with what had been shown in [1] and [7]. Besides, Organizational and staffing autonomy and International cooperation autonomy could be grouped into one factor with six observed variables. In an in-depth interview with experts, the author found that as the ten participating universities held great autonomy, they were able to invite experts and lecturers from prestigious higher education institutions around the world to be engaged in their training and research activities. The interviewed experts said that such cooperation was common and followed the academic norms globally.

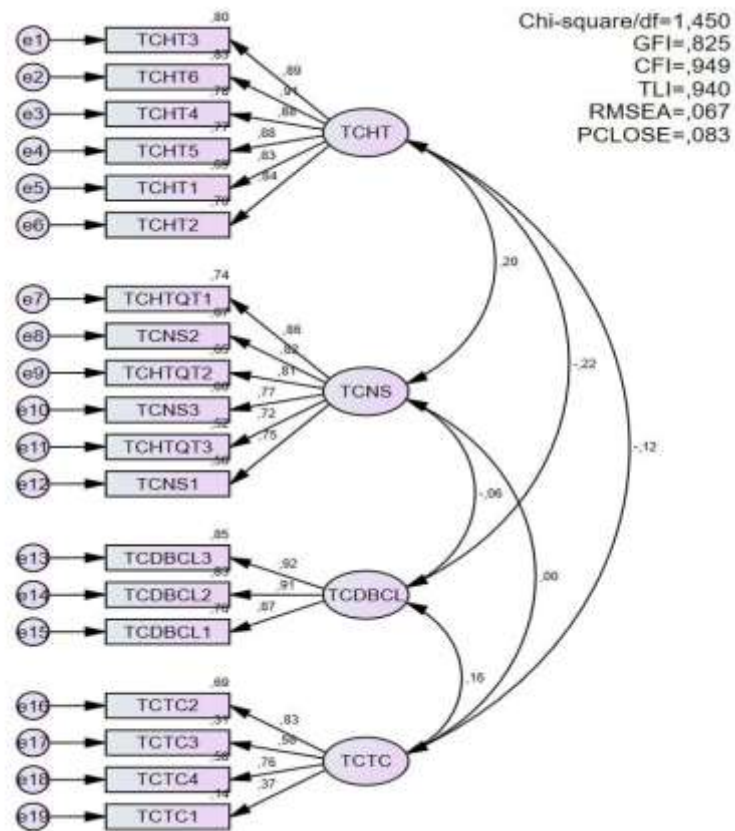


Fig. 2: CFA results
 (Source: SPSS)

4.5 Correlation Analysis

The correlation analysis results are illustrated in Table 6. The observed variables of the factors in the independent and dependent variables in the research models were correlated.

Table 6. Correlation analysis results
 Standardized Regression Weights: (Group number 1 - Default model)

		Estimate
TCHT3	<--- TCHT	,894
TCHT6	<--- TCHT	,909
TCHT4	<--- TCHT	,883
TCHT5	<--- TCHT	,880
TCHT1	<--- TCHT	,834
TCHT2	<--- TCHT	,836
TCHTQT1	<--- TCNS	,861
TCNS2	<--- TCNS	,817
TCHTQT2	<--- TCNS	,809
TCNS3	<--- TCNS	,772
TCHTQT3	<--- TCNS	,721
TCNS1	<--- TCNS	,745
TCDBCL3	<--- TCDBCL	,923
TCDBCL2	<--- TCDBCL	,911
TCDBCL1	<--- TCDBCL	,871
TCTC2	<--- TCTC	,831
TCTC3	<--- TCTC	,560
TCTC4	<--- TCTC	,763
TCTC1	<--- TCTC	,369

The Correlation matrix among variables can be seen in Table 7.

Table 7. Correlation matrix among variables
Model Validity Measures

Validity Analysis								
	CR	AVE	MSV	MaxR(H)	TCHT	TCNS	TCDBCL	TCTC
TCHT	0,950	0,762	0,050	0,953	0,873			
TCNS	0,908	0,622	0,041	0,914	0,202†	0,789		
TCDBCL	0,929	0,814	0,050	0,932	-0,224*	-0,065	0,902	
TCTC	0,737	0,431	0,026	0,809	-0,119	0,001	0,162	0,656

Validity Concerns

[†] Convergent Validity: the AVE for TCTC is less than 0.50. Try removing TCTC1 to improve AVE.

HTMT Analysis

	TCHT	TCNS	TCDBCL	TCTC
TCHT				
TCNS	0,198			
TCDBCL	0,213	0,045		
TCTC	0,023	0,085	0,164	

All in all, considering the analysis results, the authors saw that the independent variables were correlated to the dependent ones (sig < 0.05) and they reached the differentiation value. Therefore, all of the variables were able to enter multiple linear regression analysis stages for identifying their impacts on the dependent variables.

4.6 Regression Analysis

Multiple linear regression analysis results using SPSS software and the Enter method are presented in Table 8, Table 9 and Table 10.

Table 8. Regression analysis results

Model	R	R ²	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.736	.542	.535	.53610	1.873
a. Independent variables: (Constant) TCHT (Academic and training autonomy); TCNS (Organization and staffing autonomy); TCTC (Financial and asset autonomy); TCHT (International cooperation autonomy); TCDBCL (Quality assurance autonomy)					
b. Dependent variables: NLCT (competitiveness)					

(Source: SPSS)

Table 9. ANOVA results

Model	Sum of Squares	Df	Mean Square	F	Sig.	
1	Regression	106.902	5	21.380	74.391	.000
	Residual	90.245	314	.287		
	Total	197.148	319			
a. Dependent Variable: NLCT.						
b. Predictors: (Constant), TCHT; TCNS; TCTC; TCHT; TCDBCL.						

(Source: SPSS)

Table 10. Regression weights

Model		Unstandardized regression coefficients		Standardized coefficients	t	Sig.	Multicollinearity statistics	
		B	Standard deviation	Beta			Variable acceptability	Variance inflation factor (VIF)
1	(Constant)	.253	.203		1.009	.218		
	TCHT	.199	.044	.112	2.109	.004	.806	1.112
	TCNS	.185	.019	.234	2.317	.001	.728	1.378
	TCTC	.244	.047	.275	4.238	.003	.798	1.469
	TCHT	.0199	.025	.103	4.876	.004	.629	1.902
	TCDBCL	.217	.047	.102	6.510	.002	.815	1.112

a. Dependent Variable: NLCT

(Source: SPSS)

Table 11 shows the regression analysis results of five variables. It showed that these five variables entering the regression analysis had statistically meaningful impacts on competitiveness. The factors included TCHT ($\beta=0.112$), TCNS ($\beta=0.234$), TCTC ($\beta=0.275$), TCHT ($\beta=0.103$), and TCDBCL($\beta=0.102$) with Sig. < 0.05. Moreover, TCTC or financial and asset autonomy is the factor with the biggest impact, followed by organization and staffing autonomy and academic and training autonomy, while quality assurance autonomy had the least influence.

These findings reflected the actual situation of university autonomy policy enforcement in Vietnam. To be more specific, autonomy is among the most complicated issues regarding the real owners of universities faced by institutions in Vietnam. When being interviewed, the experts pointed out that a large proportion of Vietnamese universities' income sources still come from the state budget. It means universities can only be highly competitive and can invite prestige experts and lecturers for cooperation, offer high salaries, and invest in facilities and modern teaching equipment if the state budget is large.

4.7 Research Hypothesis Testing Results

The hypothesis testing results pointed out that the official research hypotheses (whose P value of under 0.05) were all accepted. This allowed the authors to make the following confirmation:

(1) The more autonomous in academics and training a university is, the better its ability to offer training services of international standards in each of its disciplines.

(2) The more autonomous in finance and assets a university is, the better its ability to carry out further social services.

(3) The more autonomous in quality assurance a university is, the better its ability to maintain its position in its knowledge-related offerings in a certain education segment on a global scale.

The findings were the same as those reflected in the interviewed experts' feedback.

The detailed hypothesis testing results can be seen in Table.

Table 11. Research hypothesis testing results

Hypothesis	Content	P value	Testing results
H1	Academic and training autonomy is proportional to universities' ability to offer training services of international standards in each discipline.	P < 0.05	Accepted
H2	Financial and asset autonomy is inversely proportional to their ability to carry out further social services.	P < 0.05	Accepted
H3	Quality assurance autonomy is proportional to their ability to maintain their position using their knowledge-related offerings in a certain educational segment on a global scale.	P < 0.05	Accepted

(Source: SPSS)

5 Conclusion

The research findings have shown the impacts of university autonomy policies on universities' competitiveness via five variables, which are academic and training autonomy, organizational and staffing autonomy, financial and asset autonomy, international cooperation autonomy, and quality assurance autonomy. In more detail, financial and asset autonomy has the biggest impact with the highest regression weights. The findings also implied that universities should be granted autonomy in a faster and stronger manner. Similar to other scholars, the authors of this particular research also realized that Vietnam's universities would continue to grow towards greater autonomy and stronger competition. To achieve sustainable development and make real socio-economic contributions to improve the competitiveness of the whole nation in general, and of the higher education system in particular, universities need to enhance their competitiveness. To do that, research-oriented universities must pay more attention to carrying out research and social services through innovation and technological transfer.

Due to several objective and subjective reasons, this particular research was only conducted for ten universities in Vietnam. Moreover, university autonomy is only one of the factors affecting institutions' competitiveness. Therefore, there should be more studies on the subject matter conducted in more universities and expanded to more aspects. Moreover, apart from university autonomy policy, it is important to research policies on educational quality assurance, staffing and finance, etc. because all of these factors have certain impacts on universities' competitiveness at different levels.

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Conflict of Interest

The authors have no conflicts of interest to declare.

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