

# Factors Affecting the Learning Results of Accounting Principles of Students University of Information and Communication Technology - Thai Nguyen University

Dinh Thi Ngoc Oanh<sup>(1)</sup>, Do Thanh Phuc<sup>(2)</sup>

<sup>(1)</sup>Thainguyen of Information and Communication Technology

<sup>(2)</sup>Thai Nguyen University of Economics and Business Administration

Date of Submission: 10-12-2021

Revised: 20-12-2021

Date of Acceptance: 25-12-2021

## ABSTRACT

Thai Nguyen University The objective of this study is to determine the factors affecting the learning outcomes of the subject of Accounting Principles of students at the University of Information and Communication Technology - Thai Nguyen University. The data used in the study were collected from the survey results of 200 students from 3 training disciplines, namely management information systems, e-commerce and digital economy, of the University of Information Technology and Technology. Communication - Thai Nguyen University. The data were processed by the statistical software SPSS 20.0, the scale was tested by Cronbachs' Alpha coefficient, exploratory factor analysis (EFA) model and linear regression analysis model. The research results show that the factors affecting the student's learning outcomes in the subject of Accounting Principles are "students' passion for learning", "Teaching qualifications of lecturers". , "Learning conditions". In which, "Students' passion for learning" is the factor that has the strongest influence on the quality of accounting principles of students at University of Information and Communication Technology - Thai Nguyen University.

Keyword: Influential factors, learning outcomes, Accounting principles, University of Information and Communication Technology - Thai Nguyen University

## I. ASK THE PROBLEM

Accounting principles is a subject taught at the University of Information and Communication Technology - Thai Nguyen

University and some other institutions. The subject equips students with the knowledge and basic skills of accounting in business management activities, the provisions of accounting laws and accounting standards necessary to perform accounting work. . In addition, helping students to recognize the domestic accounting professional organizations and their relationship with international professional organizations, the ability to integrate between regional and global accounting systems.

In recent years, the University of Information and Communication Technology - Thai Nguyen University has continuously improved its training programs, enhanced the qualifications of its lecturers, innovated its teaching methods, and perfected its facilities. matter. In order to have a scientific basis to improve the learning quality of subjects in general and the subject of Accounting Principles in particular from the needs of learners, the school has collected information from assessment sheets of teaching quality. teach. However, this result only reflects in general, has not studied in depth the factors affecting the learning quality of students. Therefore, the authors conducted a study on "Factors affecting the learning outcomes of the subject of Accounting Principles of students at University of Information and Communication Technology - Thai Nguyen University" in order to provide The school is an effective scientific base for the improvement of teaching quality, meeting the needs of industry training.

## II. RESEARCH METHODS

The study was conducted through 2 steps:

- Step 1: Conduct qualitative research by building and developing a system of concepts/scales and observed variables and correcting observed variables in accordance with reality.
- Step 2: Quantitative research, using Cronbach's Alpha reliability coefficient to test how closely the items in the scale correlate with each other; exploratory factor analysis (EFA) is used to test influencing factors and identify factors that are considered appropriate; at the same time, using multivariable linear regression analysis to determine the factors and the degree of impact of each factor on the learning outcomes of the subject Accounting principles of students at the University

of Information and Communication Technology. Communication - Thai Nguyen University.

Research on theoretical models of student learning outcomes includes three groups of influencing factors:

- Teacher staff ( $Y_1$ ): measured by four observed variables from  $x_1$  to  $x_4$  (see table 1)
- Facilities ( $Y_2$ ): measured by two observed variables  $x_5$  and  $x_6$
- Learners ( $Y_3$ ): measured by six observed variables  $x_7$  to  $x_{12}$

In this study, the research team used a Likert scale with a score of 1 to 5 to measure observed variables.

**Table 1: Variables in the model**

$x_1$ : Appropriate teaching content	$x_7$ : Students' interest in the subject Accounting Principles
$x_2$ : Appropriate teaching methods	$x_8$ : Student's self-discipline in learning Accounting Principles
$x_3$ : Enthusiastic and enthusiastic instructors	$x_9$ : Student learning methods
$x_4$ : Reasonable exam and test form	$x_{10}$ : Fees to pay for the student's Accounting Principles course
$x_5$ : Meet learning materials	$x_{11}$ : Pressure from many sides of students
$x_6$ : Meet school equipment	$x_{12}$ : Students choose majors

Since then, the model of learning outcomes in the subject of Accounting Principles of students at the University of Information and Communication Technology - Thai Nguyen University is established as follows:

$$\text{Learning Outcome (Y)} = f(Y_1, Y_2, Y_3)$$

Y is the dependent variable and  $Y_1, Y_2, Y_3$  is the independent variable

## III. RESEARCH RESULTS AND DISCUSSION

To apply the model in practice, the research team used primary data through direct distribution of questionnaires to 200 students by randomly sampling students who studied the subject of Accounting Principles. The research team used SPSS 20.0 software to support the analysis, the results of implementing the research model are as follows:

Testing the reliability of the scale (Cronbach's Alpha test) of students' learning outcomes of the subject Accounting principles with

11 observed variables belonging to 3 factors. Through the results of Table 2, the Cronbach's Alpha coefficient reached 0.688, proving that this scale is usable. However, if we consider the variable-total correlation coefficient, there are 3 variables that are excluded from the model because their value is less than 0.3. Those three variables are the student's cost of paying for the TKT course  $x_{10}$ , the pressure from many sides of the student  $x_{11}$  and the student's choice of major  $x_{12}$ . Therefore, the remaining 9 measurement variables will be used in exploratory factor analysis (EFA). The second exploratory factor analysis (EFA) results with guaranteed tests are as follows:

- Reliability of observed variables (Factor loading  $> 0.5$ )
- Check the suitability of the model ( $0.5 < KMO = 0.712 < 1$ )
- Barlett test on correlation of observed variables (Sig  $< 0.05$ )
- Test of cumulative variance = 63.351% (Cumulative variance  $> 50\%$ )

**Table 2: Rotation matrix of factors**

	Factors		
	1	2	3
x <sub>8</sub>	,872		
x <sub>7</sub>	,773		
x <sub>9</sub>	,785		
x <sub>2</sub>		,853	
x <sub>1</sub>		,832	
x <sub>3</sub>		,675	
x <sub>5</sub>			,819
x <sub>6</sub>			,770
x <sub>4</sub>			,545

Source: Result of exploratory factor analysis from survey data

According to the factor rotation matrix, we have the factor loading coefficients of the variables in Table 2 all greater than 0.5. We have 3 factors to be drawn:

- Factor 1 includes observed variables x<sub>8</sub>, x<sub>7</sub>, x<sub>9</sub> named "Students' passion for learning"
- Factor 2 includes observed variables x<sub>2</sub>, x<sub>1</sub>, x<sub>3</sub> named "Professional qualification of lecturers"
- Factor 3 includes observed variables x<sub>5</sub>, x<sub>6</sub>, x<sub>4</sub> named "Learning conditions"

Based on the results of coefficients with large values in the above factor scoring matrix table, we have the following factor equation:

Factor 1, the factor "student's passion for learning" is largely influenced by three observed variables x<sub>8</sub>(Student's self-discipline to learn TWD), x<sub>7</sub>(Student's interest in TWD), x<sub>9</sub> (Students' learning method). These factors all positively affect factor 1, in which the factor "Student's self-discipline" has the strongest impact on the factor "Students' passion for learning".

$$F_1 = 0,411x_7 + 0,423x_8 + 0,351x_9$$

Factor 2, the factor "Professional qualification of teachers" is largely influenced by three observed variables x<sub>1</sub>(appropriate teaching content), x<sub>2</sub>(appropriate teaching methods), x<sub>3</sub> (Teaching lecturers) teach with enthusiasm and enthusiasm). These factors all have a positive impact on factor 2, in which the factor "appropriate teaching methods" has the strongest impact on the factor "professional qualifications of teachers".

$$F_2 = 0,422x_1 + 0,432x_2 + 0,268x_3$$

Factor 3, the factor "Learning conditions" is largely influenced by three observed variables x<sub>4</sub>(Reasonable form of examination and examination), x<sub>5</sub>(Satisfaction with learning materials), x<sub>6</sub> (Satisfaction of equipment) get school). These factors all have a positive impact with factor 3, in which the factor "Meeting learning materials" has the strongest impact on the factor "Learning conditions".

$$F_3 = 0,329x_4 + 0,498x_5 + 0,478x_6$$

**Table 3: Factor scoring matrix**

	Factor		
	1	2	3
x <sub>1</sub>	,073	,422	-,206
x <sub>2</sub>	-,049	,432	-,128
x <sub>3</sub>	-,082	,268	,182
x <sub>4</sub>	-,222	-,198	,329
x <sub>5</sub>	-,035	-,097	,498
x <sub>6</sub>	-,078	-,150	,478
x <sub>7</sub>	,411	-,034	-,121
x <sub>8</sub>	,423	-,067	-,100
x <sub>9</sub>	,351	-,039	-,030

Source: Result of exploratory factor analysis from survey data

**Table 4: Results of linear regression analysis**

Variable name	B	Beta	Sig.	VIF
Contant	1,323	-	,000	
F <sub>1</sub>	,244	,388	,000	1,369
F <sub>2</sub>	,178	,249	,000	1,44
F <sub>3</sub>	,294	,384	,000	1,389
Sig.			0,000	
	R <sup>2</sup>		0,679	

Source: Linear regression analysis results from survey data

The results of the regression analysis in Table 4 show that the adjusted coefficient  $R^2 = 67.9\%$  means that 67.9% of the variation in learning outcomes is explained by the factors included in the model. The rest are other factors that have not been studied. The coefficient Sig.F = 0.00 is much smaller than the significance level  $\alpha = 5\%$ , so the regression model is significant, that is, the independent variables have an influence on the dependent variable Y. Besides, the degree of the regression model is significant. The exaggerated variance (VIF) of the variables in the model is much smaller than 10, so we can conclude that the variables included in the model do not have multicollinearity. The above analysis results show that all 3 variables included in the model have Sig statistical significance.  $< 5\%$ . From the above results, the regression equation to estimate the factors affecting the learning results of the Accounting Principles subject of students at University of Information and Communication Technology - Thai Nguyen University is set up as follows:

$$Y = 1,323 + 0,244F_1 + 0,178F_2 + 0,294F_3$$

Based on the regression equation, the three variables included in the model are positively correlated with student learning outcomes. In which the factor "student's passion for learning" is the most influential factor (standardized correlation coefficient Beta = 0.388), followed by the factor "professional qualifications of lecturers" (equivalent corresponds to an unnormalized correlation coefficient of 0.178), and finally the "learning conditions" factor corresponding to an unnormalized correlation coefficient of 0.294)

#### IV. CONCLUSION

The results of empirical research have identified three factors affecting the learning outcomes of students in the Accounting Principles subject at University of Information and

Communication Technology - Thai Nguyen University according to the importance level of "drunk students' interest in learning", "learning conditions", "professional qualifications of lecturers". Research results have provided a valuable practical scientific basis for improving the teaching quality of the school's Accounting Principles module. It is necessary to further promote students' self-research, inquiry and learning. In addition, teachers and schools play the role of creating a learning environment for students

#### REFERENCES

- [1]. Chu Nguyen Mong Ngoc, Hoang Trong (2008), "Analyzing research data with SPSS", Statistical Publishing House
- [2]. Mai Van Nam (2008), Econometrics, Culture and Information Publishing House
- [3]. Nguyen Dinh Tho (2011), Scientific research methods in business, Labor and Social Publishing House.