

Factors Affecting Students' Decision When Choosing Vietnam-Korea University of Information and Communication Technology To Study Information Technology Majors

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Abstract:

The topic researches the factors that influence students' decisions when choosing Vietnam- Korea University of Information and Communications Technology (VKU). Survey data collected from 378 students studying information technology at Vietnam-Korea University of Information and Communications Technology (VKU). The proposed research model and measurement scale were formed based on the research results of domestic and foreign authors and consultation with experts. Research results show that the factors affecting the decision to choose VKU to study information technology are: Quality of teaching (QT), Tuition Fee (TF), Brand of IT University (BITU), Communication Strategy (CS), IT Facilities of University (ITFU). From the research results, the author makes a number of recommendations for administrators in training and developing specialized information technology training programs to improve efficiency and create competitive advantages for businesses. .

Keywords: factors, affect, decisions, VKU, information technology majors, students.

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I. Introduction

Information technology is one of the hot industries today and is of interest to many people. Because it is so hot, the number of universities opening information technology training majors is quite large. According to statistics from the Ministry of Education and Training, by 2023, there will be 106 universities offering information technology training in Vietnam. This shows the fierce level of competition in enrollment activities at universities across the country in general and schools with information technology training in particular. The increasingly powerful media races have also more or less influenced the school choice decisions of 12th grade students.

Finding the right university for yourself is both a difficult choice and a meaningful experience for 12th grade students. With the large number of universities today, it is difficult to determine which school to choose, which will best meet their interests, needs, and future goals. Choosing a university to continue pursuing their academic career will greatly determine their personal and professional lives. Therefore, deciding which university to study at is an extremely important decision for them. In today's context of so many universities and countless training majors, deciding which major to study at which university is even more complicated.

Vietnam-Korea University of Information and Communications Technology is a leading information technology training school in the Central region. Although the school has only been established for 4 years, the number of students enrolling at the school is increasing. In addition, the quality of student input is increasing day by day through continuous increases in entry scores over the years. So what are the reasons that make 12th grade students increasingly interested in information technology training at Viet Han University of Information and Communications Technology?

Based on the above comments, the study was conducted to generally assess the needs as well as the criteria that students are interested in when deciding to choose a major or school to continue studying at university level. Thereby, helping managers have more databases in managing and administering the school's enrollment work.

II. Some basic theories

a. University

A **university** is an institution of higher (or tertiary) education and research which awards academic degrees in several academic disciplines .. *University* is derived from the Latin phrase *universitas magistrorum et scholarium* , which roughly means "community of teachers and scholars". Universities typically offer both undergraduate and postgraduate programs.

b. Information technology industry

Information technology (IT) is the use of any computers, storage, networking and other physical devices, infrastructure and processes to create, process, store, secure and exchange all forms of electronic data. Typically, IT is used in the context of business operations, as opposed to technology used for personal or entertainment purposes. The commercial use of IT includes both computer technology and telecommunications.

c. Domestic and international research

The concept of college choice is defined as a “complex, multi-stage process in which an individual develops aspirations to continue formal education after high school, followed by a decision to intend to attend a particular university, college, or advanced career institution” (Hossler, Braxton, & Coopersmith, 1989).

Over the past 3 decades, there have been many research projects in the world and in Vietnam on the choice (decision to choose) of students choosing a university to study. Within the limited framework of this article, we present 4 main and outstanding works related to the research.

Chapman's (1981) model shows that students' choice of university is influenced by a group of individual-specific factors combined with a group of external factors. The group of individual-specific factors includes influencing factors such as socioeconomic status, ability, expected level of education, and academic performance in high school. The group of external influencing factors has been grouped into three general categories: (1) relatives;

(2) group of university characteristics; (3) the university's efforts in communicating with students about to graduate from high school.

Litten's (1982) model identified a set of variables that influence the college choice process including students' family circumstances, personal attributes, environment, public policies, and activities. University dynamics, university characteristics, technology/media used for instruction.

Jackson's (1982) model is divided into three stages: options, exclusion, and evaluation. The options phase emphasizes the sociological influences that influence college choice while the exclusion and evaluation phases emphasize the cost of college and college characteristics.

The models of Hossler and Gallagher (1987) and Cabrera and La Nasa (2000) emphasize three stages of the college selection process. The orientation stage addresses factors such as socioeconomic status, positive attitudes about education, academic achievement, and parental attitudes. During the search phase, students are influenced by factors such as information from universities and parents' educational status. Influential factors in the selection stage include: characteristics and quality of the university.

III. Research Methods

a. Building models and research hypotheses

Based on the research, the author presents hypotheses and influences on the choice of information technology major at VKU. Those factors include: Quality of teaching (QT), Tuition Fee (TF), Brand of IT University (BITU), Communication Strategy (CS), IT Facilities of University (ITFU).

Develop research hypotheses.

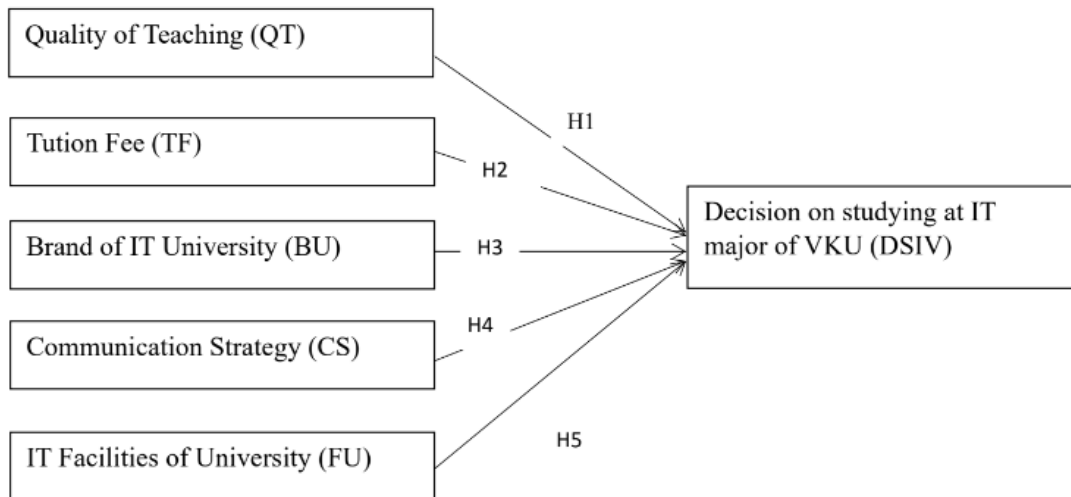
H1 : Good teaching quality will create peace of mind for learners when enrolling at VKU

H2 : Reasonable tuition will make students more inclined to choose VKU

H3 : The brand of the leading university in the Central region in information technology stimulates learners to choose VKU.

H4 : VKU's good communication strategy skillfully communicates with learners to create trust for learners, making them feel secure when studying at school.

H5 : The university's facilities for practicing information technology have made students excited and secure when studying at VKU.



3.2 Build a scale and describe variables

Through qualitative research results, the author has also built a number of new scales based on the results of the case study method. The Likert scale with 5 levels (1 to 5) is suitable for research measurement.

Build a scale and describe the independent variable

Quality of Teaching : the scale of this variable is inherited from Chapman's research (1982). The author has adjusted and added a number of scales accordingly, resulting in 5 observed variables.

Tuition Fee : the scale of this variable is inherited from Litlen's (1982) research. The author has adjusted and added a number of scales accordingly, resulting in 5 observed variables.

Brand of IT University : the measurement scale of this variable is inherited from Jackson's (1982) research. The author has adjusted and added a number of scales accordingly, resulting in 4 variables.

Communication Strategy : the scale of this variable is inherited from the research of Hossler and Gallargher (1987). The author has adjusted and added a number of scales accordingly, resulting in 4 observed variables.

IT Facilities of University : the scale of this variable is inherited from Jackson's (1984) research. The author has adjusted and added a number of scales accordingly, resulting in 5 observed variables.

Building a scale and describing the dependent variable (DIV) : is the decision to choose to study information technology at Vietnam-Korea Friendship University of Information Technology. The dependent variable in the research model was built by the author himself, based on gathering expert opinions from the case study method and fundamental theory.

3.3 Research sample and data collection methods

Survey subjects : first-year information technology students at VKU university

Survey method : The survey form serving the content of this research was surveyed by the author in two ways: The survey form was sent directly to the survey subjects and collected by the author after the survey was completed; Send emails to individuals who fit the sample selection criteria.

Determining sample size: According to Hair et al. (2006), taking the ratio of 5 surveys for 1 observed variable, the minimum sample size is 135 votes. With a total of 500 surveys sent out, the number that met the requirements for the study received was 378, meeting the minimum size.

IV. Research results

4.1 Information on research results

In a total of 378 responses, there were 306 men and 72 women.

4.2 Results of testing the reliability level and variables in the sample data set

The author processed the data through SPSS 26.0 software and obtained the results of synthesizing the Cronbach Alpha coefficient as well as the total variable correlation coefficient, testing the reliability of the independent variables, showing that the coefficients are large. more than 0.6 and all observed variables for the variables in the model, including independent and dependent variables, have reliable correlation coefficients. In addition, when analyzing the composite reliability and extracted variance, it shows that the composite reliability coefficients are all greater than 0.7 and the extracted variances of the factors are all greater than 0.5. Thus, it can be confirmed that the measurement scales have the necessary reliability.

Table 1. Summary of Cronbach Alpha coefficient results

| Independent variables | Cronbach Alpha Coefficient |
|--|----------------------------|
| Quality of teaching (QT) | 0.791 |
| Tuition Fee (TF) | 0.784 |
| Brand of IT University (BITU) | 0.879 |
| Communication Strategy (CS) | 0.841 |
| IT Facilities of University (ITFU) | 0.792 |
| Decide on studying at IT major of VKU (DSIV) | 0.862 |

(Source: author's analysis results)

4.3 Results of exploratory factor analysis

Table 2. KMO and Bartlett's test

| KMO and Bartlett's Test | | |
|---|--------------------|----------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy | | 0.938 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 2863.393 |
| | DF | 213 |
| | Sig. | .000 |

(Source: author's analysis results) The results in Table 2 show that the KMO index is 0.938, very close to 1.0, which is satisfactory, showing that factor analysis is appropriate and the significance level is sig. .000 is less than 0.05 which meets the requirement of statistical significance.

4.4 Results of linear regression analysis

Test the correlation coefficient (r)

The correlation coefficient indicates the direction of correlation (positive or negative).

Table 3. Correlation coefficient matrix between Correlations variables

| | | QT | TF | BITU | CS | ITFU | DSIV |
|------|---------------------|-------|---------|---------|---------|---------|---------|
| QT | Pearson Correlation | first | .348 ** | .417 ** | .438 ** | .458 ** | .607 ** |
| | Sig. (2- tailed) | | .000 | .000 | .000 | .000 | .000 |
| | N | | 378 | 378 | 378 | 378 | 378 |
| TF | Pearson Correlation | | first | .164* | .129 | .358 ** | .547 ** |
| | Sig. (2- tailed) | | | .013 | .074 | .000 | .000 |
| | N | | | | | | |
| BITU | Pearson Correlation | | | first | .395 ** | .275 ** | .356 ** |
| | Sig. (2- tailed) | | | | .000 | .008 | .000 |
| | N | | | | 378 | 378 | 378 |
| CS | Pearson Correlation | | | | first | .429 ** | .555 ** |
| | Sig. (2- tailed) | | | | | .000 | .000 |
| | N | | | | | 378 | 378 |
| ITFU | Pearson Correlation | | | | | first | .562 ** |
| | Sig. (2- tailed) | | | | | | .000 |
| | N | | | | | | 378 |
| DSIV | Pearson Correlation | | | | | | first |
| | Sig. (2- tailed) | | | | | | |
| | N | | | | | | 378 |

(Source: Analysis results through SPSS 20.0 software) The correlation coefficient matrix shows that the correlation coefficient between the "hindering factor" and the following variables: with the variable "Quality of teaching" (Pearson = 0.607), the variable "Tuition Fee" (Pearson = 0.547), variable "Brand of IT

University” (Pearson = 0.356), variable “Communication Strategy” (Pearson = 0.555), variable “IT Facilities of University” (Pearson = 0.562). Therefore, it can be initially concluded that the independent variables that can be included in the model to explain the factors affecting the recovery of the economy, including 5 independent variables, are appropriate.

Regression analysis

The results of the linear regression test are shown in Table 4 as follows:

Table 4. Linear regression test results

| Model | R | R Square | Adjusted R Square | Std. Error of Estimate | Error of | Durbin- Watson |
|-------|-------------------|----------|-------------------|------------------------|----------|----------------|
| first | .705 ^a | .697 | .686 | .63049 | | 2,013 |

a. Predictor: (Constant), QT, TF, BITU, CS, ITFU

b. Dependent Variable: QTDH

| Model | Unstandardize Coefficients | | Standardize Coefficients | t | Sig. | Collinearity Statistics | |
|------------|----------------------------|------------|--------------------------|--------|------|-------------------------|-----|
| | B | Std. Error | Beta | | | Tolerance | VIF |
| (Constant) | -.895 | .302 | | -2,967 | .003 | | |

| Model | Unstandardize Coefficients | | Standardize Coefficients | t | Sig. | Collinearity Statistics | |
|-------|----------------------------|------------|--------------------------|-------|------|-------------------------|-------|
| | B | Std. Error | Beta | | | Tolerance | VIF |
| QT | .370 | .085 | .183 | 4,369 | .000 | .644 | 1,752 |
| TF | .284 | .059 | .202 | 4,871 | .000 | .833 | 1,501 |
| BITU | .225 | .065 | .285 | 3,489 | .001 | .834 | 1,099 |
| CS | .222 | .067 | .168 | 3,329 | .001 | .712 | 1,005 |
| ITFU | .196 | .065 | .239 | 3,026 | .003 | .724 | 1,382 |

The above results show that the adjusted R2 coefficient has a value of 0.723. This means that the research model explains 72.3% of the variation in the dependent variable by the independent variables in the model. The VIF (Variance Inflation Factor) coefficient of the independent factors in the model all have low values and are less than 2.2 (from 1.005 to 1.752). This shows that there is no multicollinearity phenomenon between the independent variables in the model (Nguyen Dinh Tho, 2011). In addition, the coefficient Sig. of the independent factor coefficients in the model are all less than 0.05. Therefore, all 5 factors affect the dependent variable.

The standardized regression model shows a simple linear relationship between variables:

$$DSIV = 0.285*BITU + 0.239*ITFU + 0.202*TF + 0.183* QT + 0.168*CS$$

In which the variable "Brand of IT University" has a Beta coefficient of 0.285 with a high level of statistical significance of >99.99% when the index Sig. reached 0.000; Similar to the variable "IT Facilities" with Beta coefficient of 0.239 with statistical significance level Sig. has a value of 0.000. Next is the variable "Tuition Fee" with Beta coefficient of

0.202 and statistical significance level Sig. is 0.001, the variable "Quality of teaching" with

2 values Beta and Sig. are 0.183 and 0.001, respectively. Finally, the variable "Communication Strategy" with a Beta value of 0.168 has a statistical significance level of Sig. is 0.003.

The results of this study show that the most powerful factor influencing the choice to study information technology at VKU is the Brand of IT University. IT Facilities of University plays a key role on first student's decision. Tuition fee, quality of teaching and communication strategy are affecting their decision.

V. Conclusion and Recommendation

Article addresses conceptual and methodological aspects related to school choice and factors influencing the choice of information technology major by first-year students at the University of Information and Communications Technology. Vietnamese-Korean communication . Based on the analysis of the impact of five factors influencing the decision to choose information technology major at VKU, it has been discovered that the brand of IT University factor is the most important factor affecting your choice. freshman. From there, the article proposes solutions to help VKU attract the number of students in the coming years. As follows:

(1) Brand of IT University: The leading information technology school brand in the Central region and an international academic brand has helped VKU attract and convince 12th grade students who intend to pursue the

information technology industry. believe. Vietnam-Korea University of Information and Communications Technology should continue to carry out activities to enhance its brand. Detail:

a. Regularly hosts national and international conferences on information technology related to many different fields. Currently, every year VKU organizes a national conference Conference on Information Technology and its Applications. This is a series of scientific conferences on information technology and applications in various fields organized annually by VKU. The main goal of the conference is to create a forum to gather and connect researchers, scientists, domestic and international experts to participate in publishing, discussing and sharing new issues. in the fields of information technology and applications. VKU should increase the frequency of organizing conferences as well as attract more quality articles from scientists around the world to promote the conference's image as well as its reputation.

b. Regularly hosts computer competitions for high school students. Currently, every year VKU hosts a youth information technology competition that attracts a large number of contestants who are high school students. Through this, we have promoted the VKU brand to the children. In addition, the school should organize its own information technology innovation contests specifically for 12th grade students so that more and more people know about the school.

(2) IT Facilities of University: For information technology majors, practical activities take place regularly. Therefore, equipping a system of machinery and equipment for information technology students is an extremely important content. Currently, the school has built a practice lab equipped with more than 50 high-speed iMacs. However, with more than 2,000 students majoring in information technology, this number is not enough to meet the demand. In addition, VKU should buy all copyrights of specialized software for teaching information technology to share with students.

(3) Tuition Fee: Most students who choose to study at VKU have an average economic condition. Therefore, VKU needs to offer scholarship programs to reduce the financial burden on students as well as their families. The types of scholarships that should be available are:

(4)

a. Talent scholarship

- 100% tuition exemption for the entire course for 01 school-level entrance valedictorian.
- 50% discount on full course tuition for 02 school-level entrance salutatorians.
- 30% discount on tuition for the entire course for 30 valedictorians of 30 majors.

b. The "faith connection" program supports students in difficult circumstances and with average or better academic results to receive tuition loans at 0% interest. The program is coordinated and hosted by the Hung Hau Heart Foundation. receive and approve implementation.

- Dream Wings Scholarship, quantity includes 02 scholarships, value 130,000,000 VND/1 scholarship.
- Accompanying Hung Hau scholarship: 15% to 50% reduction in full course tuition.
- Study Encouragement Scholarship, value from 2,000,000 VND to 4,000,000 VND/1 scholarship.

c. "Lifelong learning" policy:

- New students from 26 - 30 years old: 35% HP reduction for the entire course.
- New students from 31 - 40 years old: 50% HP reduction for the entire course.
- New students from 41 - 50 years old: 70% HP reduction for the entire course.
- New students from 51 - 60 years old: 85% HP reduction for the entire course.
- New students over 60 years old: 100% HP exemption for the entire course.

d. Other supports

- Support 70% of full course tuition for students in difficult circumstances, children of war invalids/sick soldiers or ethnic minorities; Support 50% of full course tuition for students who are orphans.
- Commit to introducing places to practice and work after graduation.
- Be introduced to part-time workplaces, paid internships... at domestic and foreign agencies and businesses (Japan, Korea...).
- Ensure the conditions for training quality and output standards of the School.

(5) Quality of teaching: To improve the quality of teaching of lecturers, VKU should regularly organize academic exchanges between VKU lecturers and information technology lecturers at prestigious universities at home and abroad. Currently, the school receives support from Korea in improving teaching quality. Therefore, short-term training courses of 3-6 months abroad will help improve the capacity of lecturers.

(6) Communication Strategy: VKU needs to promote communication activities to increase the awareness

of people, parents and 12th grade students about the school's brand and its training programs. From there, it attracts them more to VKU.

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