Factors affecting choice of high-quality university program: a case study of students in Vietnam

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Abstract

High-quality programs have become a trend at universities in Vietnam in recent years and attracted the interest of many students. However, research on this topic is still limited. Therefore, this study aims to identify the factors influencing the students' choice of a high-quality program in Vietnam. Based on previous studies and case study models, the study proposes factors belonging to internal characteristics (characteristics of students and families) and external characteristics (influencers, university features, and communication). This study uses a combination of Exploratory Factor Analysis and Logistic model estimation methods to process data collected from 249 freshmen at Can Tho University in Can Tho city, Vietnam. The research results show that 3 factors belonging to the group of external influences have an impact on the choice of a high-quality program at Can Tho University. The attractiveness of the course and the chances of admission have a positive effect while Communication effort has a negative effect on the decision to choose a high-quality program. In order to attract more students to study high-quality programs, universities need to apply some solutions such as upgrading training programs to increase the attractiveness of study programs, promoting communication for high-quality programs, increasing enrollment quotas in high-quality programs, and diversifying enrollment methods.

Keywords: High-quality programs, university selection, students' choice, Exploratory Factor Analysis, Vietnam.

1. INTRODUCTION

In the context that countries are expanding international trade, the labor market has higher requirements for the quality of human resources. At the same time, there is always fierce competition for jobs, which requires graduates to be able to adapt to work. In addition to professional knowledge, graduates need to have good English skills, soft skills, and practical experience related to their major (Nguyen, 2021). It poses challenges not only for students but also for educational institutions, specifically universities. However, the limitation of tuition fees to ensure access to education in some countries is a barrier to improving training quality. In Vietnam, high-quality programs become trending to meet social needs in recent years.

At Can Tho University (CTU), university-level high-quality programs have a designed training period of 4.5 years (half a year longer than the regular program) because students learn English in the classroom. full-time of the first semester. The advantages of this high-quality

program compared to the formal training industry include: (i) The learning content is designed according to the curriculum in advanced countries in the world; (ii) There are from 30%-60% of subjects are taught in English; (iii) Students study with experienced domestic and foreign lecturers; (iv) Students have the opportunity to visit and study abroad; (v) Students are introduced to jobs after graduation and (vi) Students have the advantage of working abroad after graduation. Up to 2019, CTU has developed 10/98 undergraduate majors with high-quality training. All of these high-quality programs have higher tuition fees than CTU's regular training programs but still lower the cost of studying abroad. Students can study in an international environment right in the country.

The factors affecting students' decision to choose a school, to choose a major, have been interested in many researchers (Ceja, 2006; Marnge and Carter, 2007; Mbawuni and Nimako, 2015). In Vietnam, studies by Nguyen (2011) and Nguyen (2021) have shown some factors that can affect the choice of the university for high school students such as university reputation, communication activities, learning events, influential individuals, and student characteristics. However, there are no studies on the decision to choose a high-quality program. Therefore, in the context of more and more schools participating in training and expanding many high-quality programs, the study identifies the factors that affect students' choice of high-quality programs (in addition to the tuition fee factor) is necessary. By studying the factors that students care about when choosing a high-quality program, the school will take measures to attract students to high-quality programs. The development and expansion of the high-quality program will improve the quality of human resource training for socio-economic development and international integration.

2. Literature and Hypotheses Development

2.1. Literature Review

The research model is based on the rational choice theory and the classical model of Chapman (1981). Rational choice theory is based on the premise that people always act in a purposeful, thoughtful way to choose and use resources rationally to achieve maximum results with minimum cost. When faced with several courses of action, people often do what they believe is most likely to achieve the final result (Elster, 1988). The rational choice theory requires an analysis of the individual's choice action concerning the whole social system including individuals different from their needs and expectations, selection possibilities, and the outputs of each choice. Because of this complexity, few studies use theory to build research models in the field of choice decision research. However, the idea of this theory is still used in the construction of influencing factors. Besides, Chapman (1981) is one of the earliest studies in the field of school choice. Chapman (1981) proposed a general model of students' university choice including two groups of factors that greatly influence students' decision to choose a university. The first group includes the student's family and personal characteristics. The second group is external influences, namely influential individuals, the features of university, and the university's communication efforts with students.

Later, model of Chapman (1981) was further developed by some other authors by adding groups of factors affecting students' decision to choose a university (Cabera and La Nasa, 2000; Perna, 2006; Mbawuni and Nimako, 2015). Cabera and La Nasa (2000) emphasize that students' future job expectations are also an important factor affecting students' decision to choose a university. In addition to parents, who have a strong influence on students' decisions (Perna, 2006), siblings also provide valuable information and advice to students (Ceja, 2006). Furthermore, factors such as cost, quality of student support, commitment to the institution, referrals from faculty and other

staff, failure to obtain alternative admissions, and location benefits as well found to have a statistically significant impact on university choice in the study of Mbawuni and Nimako (2015). Besides, students from poor countries or developing countries tend to look to developed countries to access top education. For example, African students come to the UK to study because of the information about the attractiveness of the course, and the experience of the international study environment, not mainly because of the recruitment needs of Africa (Maringe and Carter, 2007). The university's approach to students also has a significant impact on the interest of high school students in academic programs. Veloutsou et al. (2004) point out the importance of different types of information to students studying at different schools in England, Scotland, and Northern Ireland when choosing a university. Therefore, universities need to change their approach to their customers, first of all, reinterpret the definition of educational products through the eyes of students and parents. According to research by Vrontis et al. (2007), in addition to the traditional marketing method through quality and differentiation, it is necessary to supplement the integrated marketing communications and branding strategy. Besides, research results by Ngamkamollert and Ruangkanjanases (2015) showed that international students are attracted to Thailand's international university program mainly because of four factors were academic and education quality, financial and economic consideration, administrative and staff support, and image and prestige of the university.

Based on the idea of the general model, several studies on the factors that students are interested in when choosing a university have been carried out in Vietnam. Nguyen (2011) proposes a research model including 8 groups of factors affecting the decision to choose a university for 12th-grade students in southern Vietnam. Factors included in the model include the characteristics of the university, the diversity and attractiveness of the field of study, future employment opportunities, the university's efforts to communicate with students, the reputation of the university,

chances of getting admission, the orientation of influential individuals, and compatibility with individual characteristics. Recently, Nguyen (2021) conducted a study with data collected from high school students in central Vietnam. The research results reinforce the results of previous studies, showing the influence of the following factors: university reputation, media activities, academic conditions, factors belonging to the students themselves, and influential individuals.

Through the comprehensive review of prior studies related to the research topic, many of them employed the Exploratory Factor Analysis (EFA) method combined with a Logistic regression model to investigate the determinant factors of students' decision to choose a study program. Overall, prior studies have suggested seven factors influencing the students' decision to choose a study program, such as the compatibility with personal characteristics, influential individuals, the features of the university, the communication efforts of the university, the attractiveness of the program, the chances of admission, the ability to meet expectations. It is important to address that the proposed research model in this study expands the current literature to identify and measure the impact of essential factors on Vietnamese students' decision to choose a high-quality program.

2.2. Hypotheses Development

This study uses ideas from Chapman's (1981) general model and selects factors from research in Vietnam (Nguyen, 2011; Nguyen, 2021) to build a research model to identify factors that influence the decision to choose a high-quality program at CTU. The proposed research model of this study is summarized in Figure 1. This model has 7 factors considered, including the compatibility with personal characteristics, influential individuals, the features of the university, the communication efforts of the university, the attractiveness of the program, the chances of admission, and the ability to meet expectations. In there, the first factor (compatible with personal characteristics) belongs to the group of factors "student characteristics" and the remaining 6 factors

belong to the group of factors "external influences" according to the model of Chapman (1981).

Compatibility with personal characteristics

Chapman (1981) said that the factors of individual students are one of the groups of factors that greatly influence their decision to choose a school. Among them, the factors of students' abilities and interests are the two factors that most clearly influence the decision to choose a university (Nguyen, 2011). From the perspective of choosing a major, Nguyen (2021) points out that individual characteristics of learners such as personality, interests, and abilities have a significant influence on the choice of major. Therefore, the first hypothesis in this study is stated as follows:

H1: The compatibility of the study program with the individual characteristics of students has a positive impact on the decision to choose a high-quality program.

Influential individuals

In choosing a university, students are strongly influenced by the persuasion and advice of friends and family (Chapman, 1981). These individuals' influence on students can be accomplished in three ways: (1) How their opinions influence expectations about a particular college; (2) They may also advise directly on where students should take the test; (3) In the case of a close friend, the place where the best friend takes the exam also affects the student's decision to choose a school. In addition to the strong influence of parents, the influence of siblings is also one of the strong influences on students' decision to choose a school (Ceja, 2006). Considering the educational conditions of Vietnam, the individual that influences the student's decision to choose a school is the student's teacher. Nguyen (2021) also points out that one of the factors that students rely on to decide to choose a major is the reference object. Influential individuals here include parents, teachers, family members, or people who have been working in the industry, and students studying in the industry. From here, hypothesis H2 is stated as follows:

H2: The influential individuals have a positive impact on the decision to choose a high-quality program.

The features of the university

Chapman (1981) suggested that university fixed factors such as tuition fees, geographical location, cost support policies, or dormitory environment influence students' university selection. Mbawuni and Nimako (2015) added some university characteristics that affect students' decision to choose a school such as cost, quality of student support, organizational commitment, and location benefits. Furthermore, factors such as scholarships, safety in dormitory conditions, and the quality of students at the school also attract students significantly (Nguyen, 2011). Budur et al. (2018) proved that the reputation and facilities of university are positive factors to attract students. Thus, hypothesis H3 is stated as follows:

H3: University characteristics have a positive impact on the decision to choose a high-quality program.

The communication efforts of the university

Efforts of universities to communicate with students by activities of introducing and promoting images to students, introducing scholarships, posting advertisements, or by cultural and sports activities to attract students and their families. Vrontis et al. (2007) emphasized the role of communication activities on the sympathy of students and their parents towards the study program. Nguyen (2021) also believes that direct campus visits or school introductions also influence students' university selection. Chapman (1981) also suggested that the available documents influence the student's school selection process. Based on the factors of CTU's communication efforts with students (visiting the school, participating in school introduction sessions, introducing scholarships, promoting in the media, ensuring the quality of the information provided in the available documents), hypothesis H4 is built as follows:

H4: Efforts to communicate with students have a positive impact on students' decision to choose a high-quality program.

The attractiveness of the program

Nguyen (2011) believes that universities and colleges with more diverse and attractive subjects than other schools will attract more students to choose that school. Nguyen (2021) concluded that the attractiveness of the major affects the students' decision to choose a major. Modern study programs with interesting content and high applicability often become "hot" for students. High-quality programs build confidence in their ability to provide learners with a foreign language training environment, support students in their language learning process, and create opportunities to gain work experience at businesses. The program's long-term reputation and attractiveness are built on the modern learning environment, and the ability to adapt to the international environment of graduates (Maringe and Carter, 2007). Therefore, hypothesis H5 is stated as follows:

H5: The attractiveness of the program has a positive impact on students' decision to choose a high-quality program.

The chances of admission

In Vietnam, the national university exam can be considered the most stressful exam for high school students with a highly competitive rate. Nguyen (2011) also found a significant influence of competitive rate and admission scores of universities on the decision of high school students when choosing a university. In addition, some students have decided to choose a major from some universities with low admission standards in the previous admission period to increase their chances of being admitted. Mbawuni and Nimako (2015) also found similar results in their study. Specifically, the higher the chance of admission, the more students be attracted to apply for admission to that university. Therefore, hypothesis H6 is stated as follows:

H6: The chance of being admitted has a positive impact on the decision to choose a high-quality program.

The ability to meet expectations

According to Chapman (1981), the expected level of education affects students' college plans. Cabera and Lanasa (2000) said that students are often attracted by the factor of career opportunities after graduation. Job opportunities are expressed through many levels such as easy to find a job, easy to find a job with the right expertise, a job with high income, and get high status in society. Moreover, Nguyen (2011) pointed out that the ability to meet job requirements after graduation is a factor that affects students' decision to choose a university. Thus, hypothesis H7 is stated as follows:

H7: The ability to meet expectations has a positive impact on the decision to choose a high-quality program.
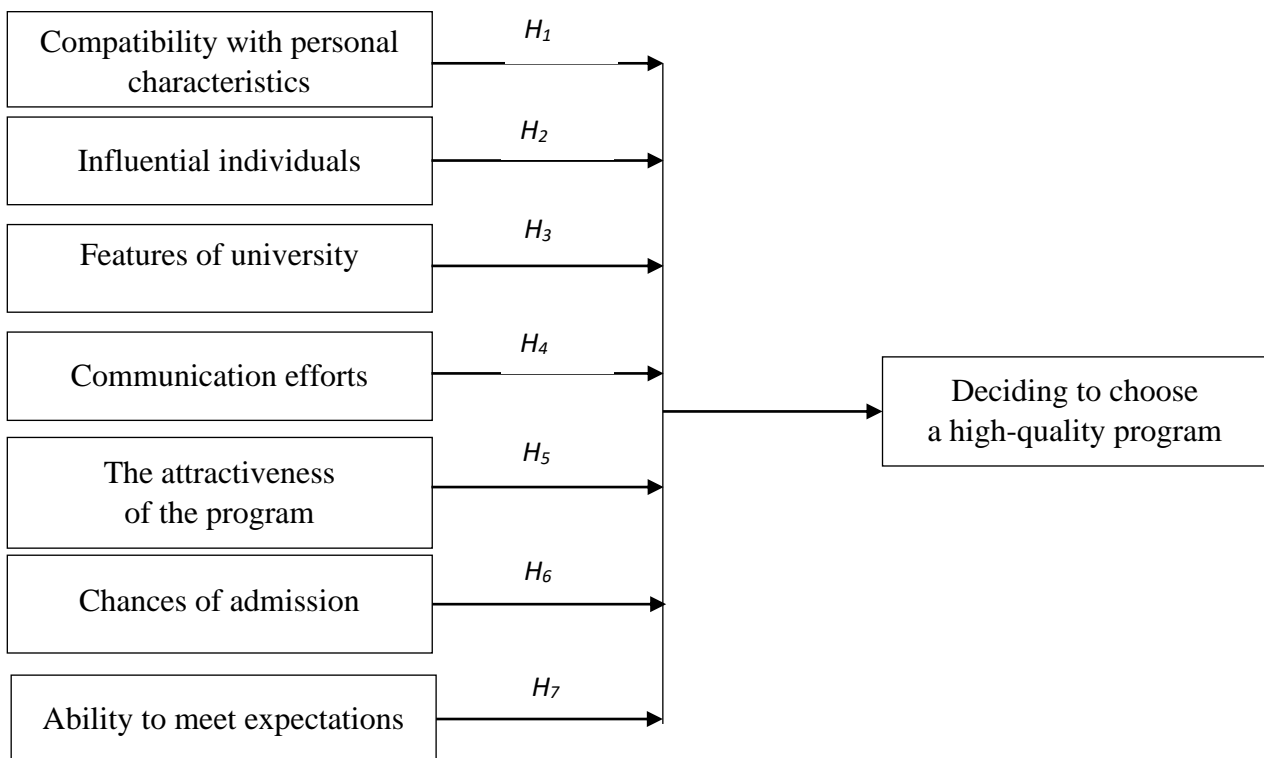
Figure 1. *Conceptual Framework for the study*

3. Reseacrch Methodology

3.1. Sample Selection

Data and information are collected through a survey questionnaire of 249 new students of CTU (admission course in 2019). These students are selected using a convenient sampling method, including 109 students choosing high-quality programs and 140 students choosing full-time programs with their respective majors. At the same time, the questionnaire includes 40 questions built on a 5-level Likert scale (from 1- Completely disagree to 5- Totally agree) corresponding to 40 observed variables.

3.2. Estimation Method

To be able to show the factors affecting the decision to choose high-quality programs for new students at CTU, this study is based on a Binary Logistic regression model. Whereas the seven independent variables are expected to be the seven factors summarized in Figure 1 and the dependent variable is the decision to choose a high-quality program. The dependent variable has a value of 1 if an observation is a freshman studying in a high-quality program and has a value of 0 if an observation is a freshman studying in a regular program.

However, the variables in the research model are scales, so it is necessary to follow the general analytical procedure. First, the scales will be tested by Cronbach's Alpha reliability analysis method and EFA. Then, the remaining factors from the rotation matrix will be used to estimate the influence of the factors on the decision to choose a high-quality program using the Binary Logistic model.

4. Results and Discussions

4.1. Empirical Results

4.1.1. Descriptive statistics

Table 1 illustrates the descriptive statistics of the scales used in the EFA. The meaning of each mean value is as follows:

• 1,00 – 1,80: Strongly Disagree

• 1,81 – 2,60: Disagree

• 2,61 – 3,40: Neutral

• 3,41 – 4,20: Agree   • 4,21 – 5,00: Strongly Agree

Table 1: *Descriptive statistics of the scales used in the EFA*

Code	Type of program	Mean	Standard Deviation	Level of agreement
Panel A: Compatibility with personal characteristics				
(I)	Regulary	3.50	-	Agree
	High-quality	3.49	-	Agree
c01 The field of study is suitable for personal interests.	Regulary	3.66	1.091	Agree
	High-quality	3.56	0.915	Agree
c02 The field of study is suitable for personal capacity.	Regulary	3.44	0.947	Agree
	High-quality	3.46	0.852	Agree
c03 The field of study is suitable for personal personality.	Regulary	3.41	1.056	Agree
	High-quality	3.44	0.850	Agree
Panel B: Influential individuals				
(II)	Regulary	2.03	-	Disagree
	High-quality	2.12	-	Disagree
c04 Oriented by parents.	Regulary	2.37	1.399	Disagree
	High-quality	2.31	1.347	Disagree
c05 Oriented by siblings in the family.	Regulary	2.02	1.254	Disagree
	High-quality	2.40	1.324	Disagree
c06 Follow the advice of homeroom teachers, career guidance teachers at high schools.	Regulary	1.85	1.061	Disagree
	High-quality	2.08	1.080	Disagree
c07 According to the opinion of friends (same class, same school).	Regulary	1.84	1.002	Disagree
	High-quality	1.86	1.015	Disagree
c08 Follow the advice of the consultant.	Regulary	1.91	1.131	Disagree
	High-quality	1.97	1.031	Disagree
c09 Recommended by relatives, friends who are (or have been) studying at CTU.	Regulary	2.17	1.246	Disagree
	High-quality	2.09	1.202	Disagree
Panel C: Features of CTU				
(III)	Regulary	3.59	-	Agree
	High-quality	3.68	-	Agree
c10 The university has a scholarship regime and preferential policies for students to study.	Regulary	3.48	1.033	Agree
	High-quality	3.70	1.161	Agree
c11 The university has modern facilities and equipment for students to study in the best way.	Regulary	3.72	0.912	Agree
	High-quality	3.68	0.984	Agree
c12 The university has a dormitory to support accommodation for students.	Regulary	3.49	1.207	Agree
	High-quality	3.44	1.152	Agree
c13 Being attracted by extra-curricular activities of the university such as art, physical training and sports.	Regulary	2.99	1.076	Neutral
	High-quality	3.07	1.090	Neutral
c14 The university has a suitable geographical location, convenient for traveling and studying.	Regulary	3.84	1.047	Agree
	High-quality	4.05	0.992	Agree
c15 The university has a reputation and a brand name.	Regulary	3.89	1.021	Agree
	High-quality	4.07	0.774	Agree
c16 The university has a team of famous lecturers.	Regulary	3.72	0.982	Agree
	High-quality	3.72	0.930	Agree
Panel D: Communication efforts of CTU				
(IV)	Regulary	3.34	-	Neutral
	High-quality	3.55	-	Agree
c17 Was visited directly at the school.	Regulary	3.28	1.263	Neutral
	High-quality	3.20	1.379	Neutral
c18 Has been introduced to the university through admissions counseling activities.	Regulary	3.39	1.239	Neutral
	High-quality	3.66	1.142	Agree
c19 Searched for information through the university's website on the internet.	Regulary	3.63	1.069	Agree
	High-quality	3.89	0.957	Agree
c20 Received information about the university through the public media.	Regulary	3.42	1.170	Agree
	High-quality	3.59	1.079	Agree

c21 Received information about the university through advertisements in newspapers, magazines and other printed materials.	Regulary	2.98	1.114	Neutral
	High-quality	3.29	1.147	Neutral
c22 Was introduced to the school through vocational education activities in high schools.	Regulary	3.35	1.220	Neutral
	High-quality	3.66	1.117	Agree
Panel E: The attractiveness of the program				
(V)	Regulary	3.64	-	Agree
	High-quality	3.48	-	Agree
c23 Due to the "hot" field of study.	Regulary	3.28	1.224	Neutral
	High-quality	3.26	1.215	Neutral
c24 The course of study has tuition fees suitable to the family's economic conditions.	Regulary	3.02	1.122	Neutral
	High-quality	3.71	0.984	Agree
c25 The program's training program has many modules to help practice soft skills.	Regulary	3.79	0.914	Agree
	High-quality	3.72	0.990	Agree
c26 English is enhanced during the learning process	Regulary	4.20	0.847	Agree
	High-quality	3.66	1.036	Agree
c27 There are courses taught by professors from high-quality foreign universities.	Regulary	3.84	0.894	Agree
	High-quality	3.09	1.072	Neutral
c28 There are modules taught by leaders who have practical experience in working in businesses.	Regulary	3.64	0.788	Agree
	High-quality	3.54	0.917	Agree
c29 Be able to participate in practical learning at businesses	Regulary	3.59	0.964	Agree
	High-quality	3.53	0.992	Agree
c30 Have the opportunity to exchange and exchange learning experiences with foreign students.	Regulary	3.67	0.963	Agree
	High-quality	3.30	0.994	Neutral
c31 Have the opportunity to receive 2 bachelor's degrees (from CTU and from foreign partner universities).	Regulary	3.74	0.976	Agree
	High-quality	3.49	1.076	Agree
Panel F: Chances of admission				
(VI)	Regulary	2.82	-	Neutral
	High-quality	2.44	-	Disagree
c32 The field of study has a low "competitive rate" in recent years.	Regulary	2.65	1.212	Neutral
	High-quality	2.34	1.117	Disagree
c33 The major has a low admissions score and a high chance of admission (moderate factor).	Regulary	2.81	1.273	Neutral
	High-quality	2.26	1.102	Disagree
c34 The field of study has many enrollment methods.	Regulary	2.99	1.159	Neutral
	High-quality	2.73	1.162	Neutral
Panel G: Ability to meet expectations				
(VII)	Regulary	3.65	-	Agree
	High-quality	3.57	-	Agree
c35 Job opportunities after graduation are high.	Regulary	3.68	0.912	Agree
	High-quality	3.53	0.877	Agree
c36 The opportunity to have a high income after graduation.	Regulary	3.65	0.907	Agree
	High-quality	3.59	0.889	Agree
c37 Opportunity to have a high position in society.	Regulary	3.28	0.953	Neutral
	High-quality	3.38	0.901	Neutral
c38 There are advantages to working abroad.	Regulary	3.81	0.918	Agree
	High-quality	3.68	0.954	Agree
c39 Opportunity to continue higher education in the future.	Regulary	3.86	0.810	Agree
	High-quality	3.71	0.971	Agree
c40 Being offered a job after graduation.	Regulary	3.64	0.866	Agree
	High-quality	3.51	0.910	Agree

4.1.2. Evaluation of the scale by Cronbach's Alpha coefficient

Table 2 presents the results of the evaluation of the scale by Cronbach's Alpha method. On the criteria for selecting factor loading, generally factor loading above 0.6 is considered high while factor loading greater than or equal to 0.3 is considered moderately high (Kline, 2005). According to the results in Table 2, there are 5 items deleted due to Cronbach's Alpha coefficient if deleting Item > total Cronbach's Alpha coefficient. The remaining model 35/40

observed variables meet the requirements to be   included in the next steps of EFA analysis.

Table 2 *Results of the evaluation of the scale by Cronbach's Alpha coefficient*

Code	Round 1			Round 2			Note
	Corrected Item-Total correlation	Cronbach's Alpha if Item deleted	Cronbach's Alpha	Corrected Item-Total correlation	Cronbach's Alpha if Item deleted	Cronbach's Alpha	
(I)			0.795				
c01	0.643	0.717					
c02	0.600	0.759					
c03	0.674	0.681					
(II)			0.790				
c04	0.440	0.788					
c05	0.571	0.751					
c06	0.622	0.741					
c07	0.522	0.764					
c08	0.576	0.751					
c09	0.560	0.754					
(III)			0.830			0.832	
c10	0.622	0.799		0.625	0.801		
c11	0.677	0.792		0.691	0.789		
c12	0.578	0.808		0.610	0.806		
c13	0.507	0.818		0.512	0.825		
c14	0.411	0.832		-	-		Deleted
c15	0.600	0.804		0.555	0.815		
c16	0.678	0.791		0.665	0.794		
(IV)			0.852			0.861	
c17	0.485	0.861		-	-		Deleted
c18	0.727	0.810		0.689	0.829		
c19	0.602	0.835		0.600	0.851		
c20	0.687	0.818		0.729	0.819		
c21	0.668	0.822		0.681	0.831		
c22	0.689	0.818		0.696	0.827		
(V)			0.817			0.867	
c23	0.299	0.830		-	-		Deleted
c24	0.186	0.839		-	-		Deleted
c25	0.645	0.784		0.623	0.850		
c26	0.580	0.791		0.576	0.857		
c27	0.539	0.796		0.617	0.852		
c28	0.622	0.789		0.679	0.844		
c29	0.636	0.785		0.676	0.843		
c30	0.672	0.780		0.715	0.838		
c31	0.604	0.788		0.609	0.853		
(VI)			0.736			0.756	
c32	0.551	0.661		0.608			
c33	0.673	0.507		0.608			
c34	0.466	0.756		-	-		Deleted
(VII)			0.843				
c35	0.670	0.809					
c36	0.686	0.805					
c37	0.636	0.815					
c38	0.656	0.811					
c39	0.578	0.826					
c40	0.512	0.839					

4.1.3. Exploratory factor analysis

To measure the compatibility of the survey sample, KMO and Bartlett's test are used and information about the test results is summarized in Table 3. The KMO coefficient is 0.839 (0.5 < KMO < 1) and sig. = 0.000 < 0.05, so the hypothesis H0 is rejected, this means that the observed variables are correlated with each other in the population and EFA factor analysis is appropriate.

Table 3 *Results of KMO and Bartlett's test*

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.839
Bartlett's Test of Sphericity Approx. Chi-Square	4,187.938
df	595
Sig.	0.000

Factor loading are simple correlation coefficients between variables and factors, ensuring the practical significance of EFA. The topic has a sample size of 249, so the Factor loading criterion is chosen to be larger than 0.5 to ensure the reliability of the observed variables (Kline, 2005). Two observed variables did not meet the requirements (c04, c05), so 33 observed variables remained to be analyzed in the next step. Table 4 summarizes the results of factor analysis through the rotated component matrix.

Table 4 *Results of factor analysis through the rotated component matrix*

Round	Number of Item Analysis	KMO	Sig.	Extracted variance	Number of factors analyzed	Deleted Item
1	35	0.839	0.000	67.477	9	c05
2	34	0.844	0.000	67.929	9	c04
3	33	0.845	0.000	66.117	8	

Table 5 presents the results of the 3rd EFA factor analysis, the last factor rotation. According to the results of the KMO and Bartlett tests, the observed variables are correlated with each other in terms of the total number of observations, 0.5 < KMO < 1 and Sig < 0.05. According to the standard Eigenvalue coefficient > 1, Eigenvalue at the last rotation is 1.106, and the total variance extracted is 66.12% (greater than 50%). This means that at the stop point of 1.106, these 8 groups of factors explain 66.12% of the variability of the data set.

Table 5 *Results of exploratory factor analysis (the 3rd time)*

Code	Component							
	1	2	3	4	5	6	7	8
c30	0.800							
c28	0.752							
c27	0.744							
c29	0.684							
c26	0.614							
c31	0.591							
c25	0.575							
c20		0.831						
c21		0.783						
c22		0.772						
c18		0.764						
c19		0.621						
c35			0.771					
c36			0.769					
c38			0.755					
c37			0.694					
c39			0.638					
c40			0.586					

c10				0.765				
c12				0.722				
c11				0.664				
c13				0.594				
c07					0.808			
c08					0.794			
c06					0.786			
c09					0.676			
c03						0.845		
c01						0.802		
c02						0.740		
c32							0.878	
c33							0.878	
c15								0.699
c16								0.597
Eigenvalues	8.778	2.942	2.456	1.879	1.749	1.637	1.271	1.106
% of explained variance	26.60%	8.92%	7.44%	5.69%	5.30%	4.96%	3.85%	3.35%
Cumulative explained variance	26.60%	35.52%	42.96%	48.65%	53.95%	58.92%	62.76%	66.11%

Kaiser-Meyer-Olkin Measure of Sampling Adequacy			0.845
Bartlett's Test of Sphericity	Approx. Chi-Square		3,952.072
	df		528
	Sig.		0.000

Thus, there are 33 relevant observed variables and are divided into 8 groups of factors, an increase of one group compared to the proposed model. The group of CTU's features has been divided into two groups of factors, namely Features of CTU and the Reputation of CTU. The factors are listed below:

Factor F1 (The attractiveness of the program) includes 7 observed variables: c30, c28, c27, c29, c26, c31, c25.

Factor F2 (Communication efforts of CTU) includes 5 variables: c20, c21, c22, c18, c19.

Factor F3 (The ability to meet expectations) includes 6 observed variables: c35, c36, c38, c37, c39, c40.

Factor F4 (Feature of CTU) has 4 observed variables: c10, c12, c11, c13.

Factor F5 (Influential individuals) includes 4 observed variables: c07, c08, c06, c09.

Factor F6 (Compatibility with personal characteristics) includes 3 observed variables: c03, c01, c02.

Factor F7 (Chances of being admitted) includes 3 observed variables: c32, c33.

Factor F8 (Reputation of CTU) includes 2 observed variables: c15, c16.

4.1.4. Factors affecting the decision to choose a high-quality program

The Binary Logistic model is used to determine and evaluate the impact of factors affecting the decision to choose a high-quality program at CTU. In which, 8 independent variables (F1 to F8) are the 8 factors obtained from the results of EFA analysis. The results of the model estimation to determine the factors affecting the decision to choose a high-quality program are presented in Table 6.

Table 6 *Estimated results of the Logistic model*

Variable	Estimated coefficient (B)	Sig.	Exp (B)
The attractiveness of the program (F1)	0.791 (0.171)	0.000	2.206
Communication efforts of CTU (F2)	-0.536(0.154)	0.000	0.585
The ability to meet expectations (F3)	0.069(0.147)	0.638	1.071
Feature of CTU	-	0.32	0.864

(F4)	0.147(0.148)	1	
Influential individuals (F5)	-0.088(0.143)	0.538	0.916
Compatibility with personal characteristics (F6)	-0.066(0.143)	0.645	0.936
Chances of being admitted (F7)	0.528(0.151)	0.000	1.695
Reputation of CTU (F8)	-0.252(0.146)	0.085	0.777
Constant	-0.306(0.142)	0.031	0.736
Obs.			249
χ^2 (9)			49.940
Sig.			0.000
-2 Log likelihood			291.377

Note: The values in parentheses () are standard errors.

4.2. Discussions

The results in table 6 show that the estimated attractiveness of the study program (F1), the communication efforts of CTU (F2), and the chances of being admitted (F7) have an impact on students' decision to choose a high-quality program, at a 1% significance level. While the two factors the attractiveness of the study program and the chances of being admitted have a positive effect, the communication efforts of CTU have a negative effect on the choice of a high-quality study program of freshmen. The impacts of these three independent variables on the choice of high-quality study programs can be explained as follows:

According to the results shown in Table 6, the student's decision to choose a high-quality program is positively affected by the attractiveness of the program, with the estimated coefficient β1=0.791 at the 1% significance level. This result is similar to the previous research results of Maringe and Carter (2007) and Nguyen (2021). This means that the more attractive the high-quality programs at CTU, the more likely high school students will choose to study high-quality programs at CTU. The attractiveness of the study program can be through advantages such as students of the high-quality program can exchange learning experiences with foreign students; lecturers are

leaders with practical experience in businesses; students have many opportunities to enhance their English in the process of studying; students have a lot of time to practice at businesses and improve soft skills.

From the results in table 6, it is clearly shown that the chances of being admitted have a positive effect on the choice of a high-quality program over a regular program. In other words, the freshmen in the sample chose to study a high-quality program because the program had a high chance of being admitted. This finding is similar to the study by Mbawuni and Nimako (2015). In this study, the research concept of the chance of being admitted is measured through 3 components, including programs with low admission scores, high chance of being admitted (the moderate factor), and low "competition rate" recently. In fact, most of the high-quality programs at Vietnamese universities have lower admission scores than the original programs. Some universities even enroll students before students graduate from high school. While the national exam is one of the most stressful for Vietnamese high school students, choosing a high-quality program will reduce the pressure significantly.

Based on the results in Table 6, the factor that has the opposite effect on the choice of a high-quality program of freshmen in the survey sample is the university's communication efforts. At first glance, this finding of this relationship may seem unreasonable; even, defying all efforts of CTU in recruiting students for high-quality programs. But instead, this negative relationship has a purely practical basis to explain. According to the results of Table 1, the overall rating for this group of factors is higher among students of regular programs (3.55-Agree) than students of high-quality programs (3.34-Neutral). This may reflect a lack of information about the 12th graders' high-quality program at the time of major selection. Therefore, the negative relationship of the communication efforts of CTU may reflect the lack of information of the high-quality program students about their program information compared to the general students. Information about traditional

programs has long been media coverage and is easily accessible to the public. In addition, social media is also an effective tool to reach young people and it can influence students in the choice of study and university (Constantinides and Stagno, 2012).

In addition, the study has not found a basis to confirm the following factors: the ability to meet expectations, features of university, individuals that affect the choice of major, compatibility with personal characteristics, university's reputation has an impact on students' decision to choose a major.

5. Conclusions

The study used EFA and Logistic regression model to identify the factors affecting the students' decision to choose a high-quality program at Can Tho University. The proposed research model includes 40 observed variables belonging to the groups of factors: the compatibility with personal characteristics, influential individuals, the features of university, the communication efforts of university, the attractiveness of the program, the chances of admission, the ability to meet expectations.

According to the results of the EFA analysis, from 40 proposed observed variables, the remaining 33 observed variables meet the requirements and are divided into 8 groups of factors including The attractiveness of the program (F1), Communication efforts of the university (F2).), The ability to meet expectations (F3), Features of university (F4), Influential individuals (F5), Compatibility with personal characteristics (F6), Chances of being admitted (F7), Reputation of university (F8). These variables are included in the Logistic regression model as independent variables and the decision to choose a high-quality program is a dependent variable. Regression estimation results show that the attractiveness of the program (F1), communication efforts of university (F2), and chances of being admitted (F7) have a statistically significant impact on the decision to choose a high-quality program. Although the attractiveness of the programs

and the chances of being admitted had a positive impact on students' choice decisions, a lack of information led to a negative impact of communication efforts on program selection decisions. The outstanding advantages of high-quality programs such as updated study programs according to the world's top universities, more time to practice English skills, international exchange opportunities, and modern facilities are clearly more attractive than the regular program. The opportunity to study in an international environment has motivated many students to choose a high-quality program with the goal of meeting the recruitment needs of today. This is also partly because universities want to increase enrollment, but the number of people who know about these programs is too limited. On the other hand, many high school students do not have access to enough information to make a decision to choose high-quality programs instead of other programs in the country or study abroad.

From these results, the study proposes several solutions to increase the attraction of candidates to participate in high-quality programs. Firstly, universities continue to improve the high-quality program content and increase practical advantages to increase the attractiveness of the study program. Second, communication needs to be promoted by providing sufficient information in a variety of media to spread the appeal of high-quality programs to high school students. Universities should provide adequate information, especially the advantages and differences, about high-quality programs through university websites, social networks, and even at high schools. In addition, universities need to focus on implementing measures to increase enrollment number, while ensuring the quality of input and quality of education as committed to building a long-term reputation for high-quality programs. Finally, diversifying enrollment methods of programs is very useful to facilitate learners to choose high-quality programs.

Thus, with the scope of the collected data, this study only detects several factors belonging to the group of external influences in the research

model of Chapman (1981) that have an impact on the choice of a high-quality program for students at Vietnam. This may require more research on a larger scale to confirm the impact of factors belonging to the group of family and individual characteristics.

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