

FACTORS AFFECTING HIGH SCHOOL STUDENTS' DECISION ON CHOOSING UNIVERSITY: CASE STUDY OF HO CHI MINH CITY

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ABSTRACT

In the past two years and especially in 2019, the enrolment of universities had encountered many difficulties, most of them cannot implement their own enrolment plan. This affecting the operation of the universities in Ho Chi Minh City (HCMC). Therefore, the main objective of this article is to find out factors affecting high school students' decision on choosing universities in HCMC. The researchers surveyed 500 students who are studying at high schools in HCMC. The researchers applied simple random sampling technique. The researchers had tested Cronbach's Alpha, the exploratory factor analysis and Structural Equation Modelling (SEM). The article had used questionnaire on a 5-point Likert scale. Finally, there were five key factors affecting high school students' decision on choosing universities in Ho Chi Minh City with significance level 0.01.

Keywords: Student, decision, university, high school and HCMC.

INTRODUCTION

In recent years, the enrolment work of most universities has changed a lot due to the renovation of regulations of the national high school exams. This has caused difficulties for both the admissions department of the universities in promoting admissions and candidates when subject to the new rules. According to the document about organizing the national high school exam and regular university entrance exams in 2019. This exam will continue to keep the regulations of 2020. The basic enrolment advertisement will be completed due to the stable examination regulations, creating favourable conditions for enrolment of universities.

Besides, there was the renovation of the 2017 regulation on national high school examinations of the Ministry of Education and Training. This affected the operation of the universities in Ho Chi Minh City (HCMC) so that the admission requirements of universities must be changed in accordance with this regulation and the candidates who must also adapt to the new school application process. Before the national high school exam takes place, each candidate must register to choose university to take the exam. Candidates must register their aspirations to universities in the first place instead of having to registration for universities after the exam. This had created some anxiety for candidates somewhat and made it difficult to control the admission of the training universities.

On the other hand, candidates have too many aspirations, so most of them focus on enrolling in high quality universities first, if they do not have enough admission points to consider lower-ranking universities. Universities have also changed working enrollment. Universities began adding various forms such admissions by high school transcripts. Above

mentioned things, the main objective of this article is to find out factors affecting high school students' decision on choosing universities in HCMC to improve universities' admission work.

LITERATURE REVIEW

High School Students' Decision on Choosing University (SD)

High school students' decision on choosing university is understood as the ability or intention to make a university choice decision (Vrontis et al., 2007). The decision is to select a university that is considered in terms of the intention of choosing a university to enroll high school students (Dahari & Ya, 2011). Besides, the process of selecting a product or service provider is similar to that of a university in general. This process takes place in awareness and action. The part that takes place in consciousness is the intent of the decision. In fact, the decision is to choose a university that is a complex process, consisting of many stages (bin Yusuf et al, 2008). At each stage, the student plays different roles from prospective students, formal students and corresponds to decisions such as whether or not to go to university, decisions to apply for records, apply profile, register or not.

Perception of Cost (PC)

The cost is giving up or sacrificing something for a certain goods or service (Zain et al., 2013). In higher education, the cost can be understood as the total amount of money that customers (students, parents, employers) pay to training institutions. From the point of view of high school students, costs include money costs, labor costs, time costs, and psychological costs (Fosu & Poku, 2014). The perception of student costs in two scales: a reasonable tuition policy and a reasonable cost of living and add a scale that has a reasonable financial support policy (scholarships, grants and concessional loans). There is a flexible fee collection regime. In the context of higher education in Vietnam, costs include school fees, financial aid, scholarships, living expenses... The tuition collection regime will create many advantages for students (Padlee, et al., 2010). Therefore, the following hypothesis built.

Hypothesis H1: Perception of cost has a positive impact on the high school students' decision on choosing university in Ho Chi Minh City.

Perception of Facilities and Resources (PFR)

Many authors argue that the university's facilities also include physical and immaterial elements (Shurestha et al., 2011). In addition to factors that belong to the tangible characteristics, the surrounding environment is considered to be the distinctive features, bearing cultural elements of the organization. Facilities and resources including facilities and resources (lecturers) in order to fully meet learning and environmental needs, have convenient for students to study, to enjoy, to participate in extracurricular activities (Pavlou & Fygenson, 2006). Therefore, the following hypothesis built.

Hypothesis H2: Perception of facilities and resources have a positive impact on the high school students' decision on choosing university in Ho Chi Minh City.

University Reputation (UR)

A university's reputation can be understood in different ways, it depending on contexts such as: University reputation is shaped by the process of accumulation, timeless evaluation by many groups, people who interact with the organization. Reputation is also identified through the social, student's view of the university (Perna, 2000). Students have awareness of the importance of maintaining academic values and preserving the principles of educational quality. University reputation includes the opinions, and impressions of students about their desired university. A university's reputation can be defined as all the beliefs an individual has toward a university (Padlee et al., 2010). A university's reputation also relates to its image in the public eye. Therefore, the following hypothesis built.

Hypothesis H3: University reputation has a positive impact on the High school students' decision on choosing university in Ho Chi Minh City.

Students Receive Information from the University (SRI)

Communication is the way in which subjects communicate information is to the target customers. The communication must make customers understand the benefits and values they receive. From the perspective of high school students, they receive information from the university to satisfy the need for information search and as a basis for making university choice decisions (Price et al., 2003). This information reflects the university's efforts in communication as well as promotion and communication activities in education. Universities provide information to students and parents about their goals, activities, support and interest in universities. For high school students, they need to be provided with information related to courses, career prospects that students can receive when selecting universities (Shanka et al., 2005). Therefore, the following hypothesis built.

Hypothesis H4: Students receive information from the university has a positive impact on the high school students' decision on choosing university in Ho Chi Minh City.

Advice of Relatives (AR)

In studies that had measured this variable with only 01 scale, it is the advice of parents and classmates. Other study had argued and developed into 6 scales: friend's advice, classmate's advice, student's advice, alumni's advice, middle teacher's advice high school, the advice of admissions counselors (Ramayah et al., 2010). In the current context, with the strong development of science and technology (internet, telephone.), students have more opportunities to have direct or indirect contact with many people through many different forms such as phone, email, chat... Therefore, the authors consider this independent variable at the most general level as influencing the advice of relatives (parents, siblings, friends.) to impact the high school students' decision on choosing university in Ho Chi Minh City. Therefore, the following hypothesis built.

Hypothesis H5: Advice of relatives have a positive impact on the high school students' decision on choosing university in Ho Chi Minh City.

Research model for factors affecting the high school students' decision on choosing university in Ho Chi Minh City.

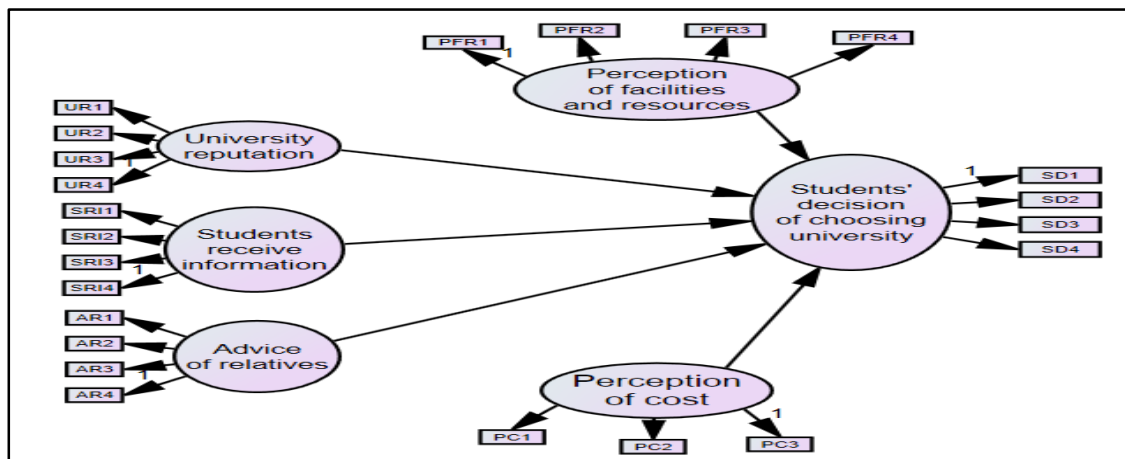


FIGURE 1
RESEARCH MODEL FOR FACTORS AFFECTING THE HIGH SCHOOL STUDENTS' DECISION ON CHOOSING UNIVERSITY IN HO CHI MINH CITY

The research process for factors affecting the high school students' decision on choosing university in Ho Chi Minh City.

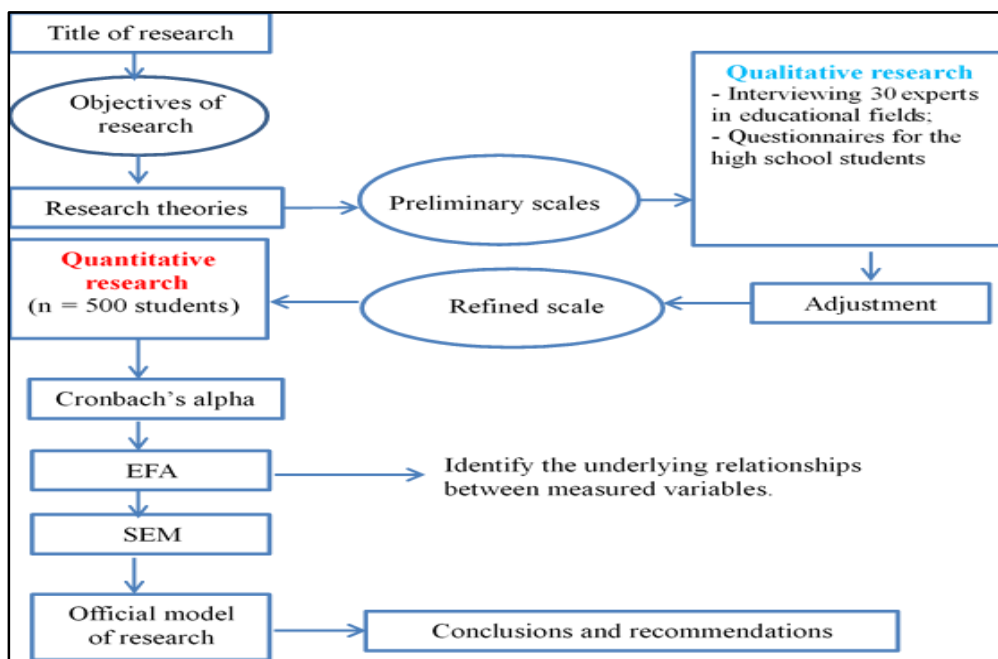


FIGURE 2
RESEARCH PROCESSING FOR FACTORS AFFECTING THE HIGH SCHOOL STUDENTS' DECISION ON CHOOSING UNIVERSITY IN HO CHI MINH CITY

Factors affecting the high school students' decision on choosing university in Ho Chi Minh City by many steps following:

Step 1: One of the first steps in developing a scientific research project is to select a topic. For researchers, topics are usually chosen through experience and accumulated knowledge, in the context of professional requirements, management or practical needs of society.

Step 2: The researchers found the objectives of research and research theories.

Step 3: The researchers built preliminary scales and applied the expert methodology and based on 30 experts' consultation about education to improve the scale and design of the questionnaire. The results of surveying 30 experts who showed that all factors affecting the high school students' decision on choosing university in Ho Chi Minh City.

Step 4: The researchers had adjustment and refined scale by testing a reliability scale with Cronbach's Alpha coefficient and exploratory factor analysis. The researchers surveyed 100 students studying in high schools in HCMC. The research results built questionnaire for quantitative research (n=500 students).

Step 5: The researchers surveyed 500 students by questionnaires and tested a reliability scale with Cronbach's Alpha coefficient and exploratory factor analysis. 600 students are studying at 10 high schools of 10 districts in HCMC. Each schools have 60 students surveyed. There are 23 items and 485 samples processed and data collected from April 2019 to November 2019 at 10 high schools of 10 districts in HCMC.

Step 6: The researchers had simple random sampling technique and spent 25 minutes for a survey. All data collected from the questionnaire are coded, processed by SPSS 20.0 and Amos. This method is based on the eigenvalue, the appropriate factorial analysis and the observed variables in the whole which are correlated when Average Variance Extracted is >50%, the KMO coefficient is within 0.5 to 1, Sig coefficient $\leq 5\%$, the loading factors of all observed variables are >0.5. In addition, the researchers tested exploratory factor analyses (EFA) were performed (Hair et al., 1998).

Step 7: the researchers continued to confirmatory factor analysis (CFA): appropriate use when the researchers had some knowledge of the underlying variable structure. In which the relationship or hypothesis (derived from theory or experiment) between the observed variable and the base factor is assumed by the researchers before conducting statistical testing. EFA's next step is to test if there is a prior theoretical model that underlies a set of observations. CFA is also a form of SEM. When developing CFA, the observed variables are also indicator variables in the measurement model.

Step 8: The researchers specified the number of factors required in the data and which measured variable is related to which latent variable. Confirmatory factor analysis (CFA) is a tool that is used to confirm or reject the measurement theory. The purpose of CFA helps to clarify: (1) Unilaterality, (2) Reliability of scale, (3) Convergence value, and (4) Difference value. A research model is considered relevant to market data if Chi-square testing is $P\text{-value} > 5\%$; $CMIN/df \leq 2$, some cases $CMIN/df$ may be ≤ 3 or < 5 (Hair et al., 1998); GFI, TLI, $CFI \geq 0.9$. However, according to recent researcher' opinion, GFI is still acceptable when it is greater than 0.8; $RMSEA \leq 0.08$. Apart from the above criteria, the test results must also ensure the synthetic reliability >0.6; Average Variance Extracted must be greater than 0.5 (Hair et al., 1998).

Step 9: The researchers tested SEM model based on the results of step 8.

Step 10: The researchers had official model of research and the researchers had conclusions and recommendations.

RESEARCH RESULTS

The scale reliability tests for factors affecting the high school students' decision on choosing university in Ho Chi Minh City.

Table 1		
THE SCALE RELIABILITY TESTS FOR FACTORS AFFECTING THE HIGH SCHOOL STUDENTS' DECISION ON CHOOSING UNIVERSITY IN HO CHI MINH CITY		
Items	Content	Cronbach's Alpha if Item Deleted
PC1	University has reasonable tuition fees	0.924
PC2	University has reasonable living costs	0.945
PC3	University has many financial support policies (scholarships, grants, preferential loans...)	0.936
PC4	University has a flexible regime of fee collection (tuition fee)	0.918
Cronbach's Alpha for perception of cost (PC)		0.947
PFR1	University has an ideal location and convenient	0.912
PFR2	University has an encouraging learning environment for students	0.938
PFR3	University has facilities, equipment for students to relax and entertain	0.945
PFR4	University has the necessary resources to meet the learning needs of students	0.916
Cronbach's Alpha for perception of facilities and resources (PFR)		0.945
UR1	University has an academic reputation	0.814
UR2	University has a prestigious and quality curriculum	0.819
UR3	University has programs that are recognized by individuals and organizations assessment of academic value	0.847
UR4	University is known by many enterprises	0.811
Cronbach's Alpha for university reputation (UR)		0.861
SRI1	University provides a full range of information related to adequate career opportunities	0.929
SRI2	University provides all information related to the courses	0.944
SRI3	University provides information related to postgraduate level or courses to study at a higher level	0.945
SRI4	University provides information regarding the admissions process	0.926
Cronbach's Alpha for students receive information from the university (SRI)		0.951
AR1	Student has parents' advice when student decides to choose a university	0.870
AR2	Student has friends' advice when student decides to choose a university	0.830
AR3	Student has high school teachers' advice when student decides to choose a university	0.879
Cronbach's Alpha for advice of relatives (AR)		0.902
SD1	I will study at University "Z" in the near future	0.845
SD2	I intend to choose university "Z" to study and research	0.786
SD3	University "Z" will be my decision	0.861
SD4	University "Z" will help me develop my job in the future	0.797
Cronbach's Alpha for high school students' decision on choosing university (SD)		0.862
Source: The researchers' collecting data and SPSS 20.0		

Table 1 showed that factors affecting the high school students' decision on choosing university in Ho Chi Minh City that had all of 23 variables surveyed corrected item-total correlation greater than 0.3 and Cronbach's Alpha if Item deleted greater than 0.6 and Cronbach's Alpha is very reliability. Such observations make it eligible for the survey variables after testing scale. This showed that data was suitable and reliability for researching.

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	6.014	26.146	26.146	6.014	26.146	26.146	4.599
2	3.597	15.638	41.784	3.597	15.638	41.784	3.578
3	3.497	15.203	56.988	3.497	15.203	56.988	3.661
4	2.564	11.148	68.136	2.564	11.148	68.136	4.217
5	1.720	7.478	75.614	1.720	7.478	75.614	3.015
6	1.306	5.680	81.294	1.306	5.680	81.294	4.115
7	.690	3.001	84.295				
...				
22	.085	.372	99.891				
23	.025	.109	100.000				

Source: The researchers' collecting data and SPSS 20.0

Table 2 showed that extraction sums of squared loadings of Cumulative % is 81.294% (>60%) and Initial Eigenvalues is 1.306 (>1). This result is suitable for next step.

Code	Component					
	1	2	3	4	5	6
PC4	0.946					
PC2	0.938					
PC1	0.934					
PC3	0.873					
SRI4		0.948				
SRI1		0.939				
SRI2		0.929				
SRI3		0.921				
PFR1			0.954			
PFR4			0.951			
PFR2			0.906			
PFR3			0.898			
SD4				0.903		
SD2				0.859		
SD1				0.849		
SD3				0.725		
UR4					0.859	
UR1					0.847	
UR2					0.845	
UR3					0.815	
AR3						0.933
AR2						0.932
AR1						0.827

Kaiser-Meyer-Olkin Measure of Sampling Adequacy: 0.816
Bartlett's Test of Sphericity; Sig. is 0.000
Source: The researchers' collecting data and SPSS 20.0

Table 3 showed that KMO coefficient is 0.816 and the level of significance (Sig) is 0.000. Result showed that there are six components. Extraction sums of squared loadings are % of Variance coefficient is 81.294 with the level of significance (Sig) is 0.000.

Relationships			Coefficient	Standardized Coefficient	S.E	C.R.	P	Conclusion
Students' decision choosing university	←	Perception facilities resources	0.054	0.119	0.021	2.642	0.008	H2: Supported
Students' decision choosing university	←	University reputation	0.072	0.118	0.026	2.782	0.005	H3: Supported
Students' decision choosing university	←	Students Receive information	0.061	0.123	0.021	2.976	0.003	H4: Supported
Students' decision choosing university	←	Perception cost	0.097	0.208	0.025	3.875	***	H1: Supported
Students' decision choosing university	←	Advice relatives	0.217	0.368	0.036	6.124	***	H5: Supported
Note: ***Significant at 1 percent (All t-tests are one-tailed) (Source: The researchers' collecting data, SPSS 20.0 and Amos)								

Table 4 showed that column "P"<0.01 with significance level 0.01 and column "Conclusion" following:

H1: supported: Perception of cost impacted on the high school students' decision on choosing university in Ho Chi Minh City with significance level 0.01.

H2: supported: Perception of facilities and resources impacted on the high school students' decision on choosing university in Ho Chi Minh City with significance level 0.01.

H3: supported: University reputation impacted on the high school students' decision on choosing university in Ho Chi Minh City with significance level 0.01.

H4: supported: Students receive information from the university impacted on the high school students' decision on choosing university in Ho Chi Minh City with significance level 0.01.

H5: supported: Advice of relatives impacted on the high school students' decision on choosing university in Ho Chi Minh City with significance level 0.01.

This showed that five factors affecting the high school students' decision on choosing university in Ho Chi Minh City with significance level 0.01.

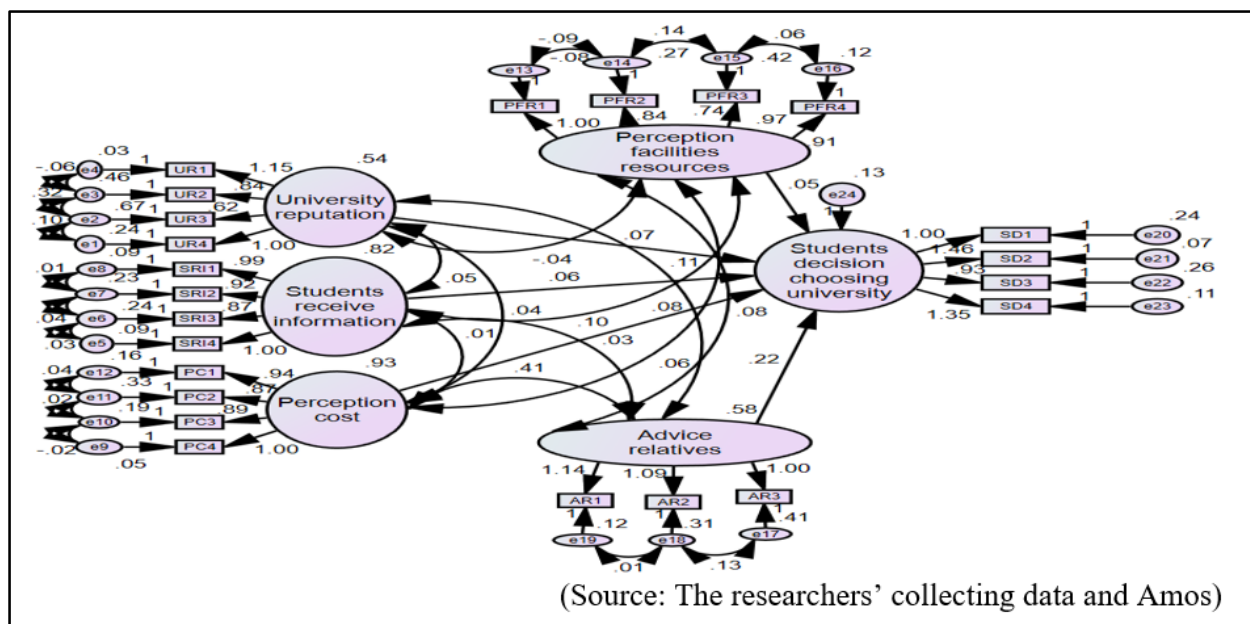


FIGURE 3
THE STRUCTURAL MODEL SHOWING THE STRUCTURAL LINKAGE BETWEEN COMPONENTS

Chi-square=501.137; df=201; p=0.000; Chi-square/df=2.493; GFI=0.918; TLI=0.963; CFI=0.970; RMSEA=0.056.

CONCLUSIONS AND MANAGERIAL IMPLICATIONS

Conclusions

This study explored and examined the relationship of factors that influence high school students' decision on choosing university. Based on past studies, the authors had to stemmed from the practical context of education in Vietnam for the current period. The authors had made hypotheses. This article was to test these hypotheses, the authors conducted a survey of 500 students who were studying at high schools and taking the national university and high school exams in the school year 2019 in Ho Chi Minh City. Research results showed that there were five key factors that affecting high school students' decision on choosing universities in Ho Chi Minh City with significance level 0.01. Five factors including: Perception of cost; perception of facilities and resources; university reputation; students receive information from the university and advice of relatives. This showed that the research concepts used and shaped for high school students when the researchers surveyed and the scale used for research which is appropriate and reliable. Besides, there is a strong competition between universities in Vietnam. In the future, there will be some universities that do not exist because they cannot recruit students. Therefore, the competitive issue that attracts students is now vital to universities. The paper analyzes the factors that influence student's choice of universities in order to help universities' managers make some recommendations and key policies for universities to attract more and more students

to join to study at university. Based on the above mentioned things, the researchers had managerial implications following:

Managerial implications

Managerial implication for advice of relatives ($\beta=0.368$) had the strongest impact on the high school students' decision on choosing university in Ho Chi Minh City with significance level 0.01. The family is a powerful influence on the career choices and future success of each individual. Therefore, the proper awareness of the role and responsibility of the family in vocational education for high school students is very important for students' decision. And the organization of vocational guidance for high school students that are an urgent issue, an impossible task. Every parent needs to care about this in the current period.

Managerial implication for perception of cost ($\beta= 0.208$) had the second impact on the high school students' decision on choosing university in Ho Chi Minh City with significance level 0.01. In the present context, this factor is expected to be more impactful. In the past, especially public universities, they had relatively low tuition fees and collected a set ceiling. Therefore, most parents can afford to pay for their children's education at university. However, the current trend of higher tuition fees in universities seems to have shocked and increased. Some public universities have tuition fees that are 2-6 times higher than the average of the mass system. There is the large gap between public and non-public universities, between universities with advanced, advanced curricula and mass programs... somewhat It has an impact directly to the high school student's decision on choosing university.

Managerial implication for students receive information ($\beta = 0.123$) had the third impact on the high school students' decision on choosing university in Ho Chi Minh City with significance level 0.01. Universities should share a lot of useful information and experiences in communication about enrollment on social networks. It is one of the important tasks which is contributing to effective admissions results as well as spreading the image of universities. Universities need to promote the propaganda on the website; linking universities' websites to faculties, centers, campuses far away from universities and Facebook of the universities that help to increase the number of people accessing the website. Social networking has also become an effective tool to contribute to the live reporting sessions of admissions advice to attract people to interact.

Managerial implication for perception of facilities and resources ($\beta = 0.119$) had the fourth impact on the high school students' decision on choosing university in Ho Chi Minh City with significance level 0.01. A university with all of the above-mentioned factors but with poor and backward facilities, failing to keep up with the development of society, it will not be possible to have the best training quality. Therefore, university continue strengthening the facilities, equipping with modern teaching and learning facilities in universities that will contribute to training a quality workforce to meet the requirements of economic development - society in the current integration trend.

Managerial implication for university reputation ($\beta = 0.118$) had the least impact on the high school students' decision on choosing university in Ho Chi Minh City with significance level 0.01. The majority of high school students tend to prefer high-quality universities. Currently, the reputation of universities is very different, so this is why students put this criteria at a high priority. Therefore, universities with good reputations still attract many students and are under little difficult enrollment pressure. Reputation is not that university that is born sooner or

later. It is important that the quality of training, teaching staff recognized by professional and social organizations... if students choose to enter those universities, their students will be able to study better. Finally, the researchers had recommendations for next study. First of all, our model tested on a sample of HCMC so that the sample represented in other Cities in Vietnam. Secondly, the article reinforced by adding control variables such as training programs, training quality, job opportunities... And the analysis of the longitudinal databases is to foreign universities which should allow to make comparisons over time as a result of eventual changes in the variables.

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